Page 1 of 13

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Agenda	Board Meeting	Open/Closed	Information/Action	Issue
Item No.	Date	Session	Item	Date
11	06/11/12	Open	Action	06/01/12

Subject: Denying Alstom Transportation Inc.'s Protest and Conditionally Awarding a Contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industry, Inc.

<u>ISSUE</u>

Whether to: (1) deny Alstom's protest and conditionally award a contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industry, Inc.; or (2) reject all proposals for UTDC Light Rail Vehicle Refurbishment

RECOMMENDED ACTION

- A. Adopt Resolution No. 12-06-____, Denying Alstom Transportation Inc.'s Protest and Conditionally Awarding a Contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industry, Inc.; or
- B. Adopt Resolution No. 12-06-____, Rejecting all Proposals for UTDC Light Rail Vehicle Refurbishment.

FISCAL IMPACT

Budgeted:	Yes	This FY:	\$
Budget Source:	Capital	Next FY:	\$
Funding Source:	ARRA, State Prop 1B*	Annualized:	\$
GL Acct(s)	GL: 910800	Total Amount:	\$
Capital Project #:	WBS: R085		
Total Budget:	\$19,676,099.70		

American Recovery and Reinvestment Act (ARRA) of 2009[#]: \$4,866,997 Awarded Prop 1B: \$10,931,672 Future Prop 1B: \$4,728,066 *Pending – requested allocation June 2011 Total: \$20,526,735

[#]To meet federal requirements, these funds must be expended by September 2015 and the FTA goal is to have the funds fully expended by September 30, 2013. *The contract contains a clause that addresses budget shortfalls and also contains a termination for convenience clause in case future state funding is not available.

DISCUSSION

A. The Procurement

In 2003, RT purchased 21 Urban Transportation Development Corporation (UTDC) light rail vehicles (LRVs) from Santa Clara Valley Transportation Authority (VTA). The LRVs require refurbishment and replacement of some systems to meet RT's operational requirements. On April 5, 2010, and June 22, 2010, RT contracted with LTK Engineering (LTK) through Work Orders under the General Engineering Support Services contract to assist RT in preparing specifications

Approved:

Presented:

REGIONAL TRA	Page 2 of 13			
Agenda Item No.	Board Meeting Date	Open/Closed Session	Information/Action Item	lssue Date
11	06/11/12	Open	Action	06/01/12

Denying Alstom Transportation Inc.'s Protest and Conditionally Awarding a Subject: Contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industry, Inc.

for the refurbishment project. Both LTK and RT staff conducted research by traveling to Utah to interview Utah Transit Authority's (UTA) Maintenance and Contract Project personnel who managed the refurbishment of UTA's 29 UTDC LRVs. From these "lessons learned," RT identified several problem issues that UTA encountered to avoid. LTK also conducted an analysis of the UTDC LRVs and provided an assessment of their current state. LTK and RT staff created the technical specifications for the refurbishment. LTK also prepared an Engineer's Estimate of the anticipated cost of the project, including (1) job classifications and labor hours estimated to complete the refurbishment, multiplied by average fully-burdened labor rates for those workers; and (2) the estimated materials cost. LTK has provided on-going technical support to RT staff during this negotiated procurement.

В. Procurement Strategy – Negotiated Procurement

On February 23, 2009, the Board approved Resolution 09-02-0035 to delegate procurement authority to the General Manager/CEO for projects funded in whole or in part by the 2009 American Recovery and Reinvestment Act (ARRA) funding, including authorization to release a Request for Proposals (RFP) for UTDC Light Rail Vehicle Refurbishment. The procurement method selected for this project is a "Best Value" procurement (as stated in the Federal Transit Administration's Circular 4220.1F) which means a competitive, negotiated procurement process in which RT reserves the right to select the most advantageous offer by evaluating and comparing factors in addition to cost or price, such that a public agency may acquire technical superiority even if it must pay a premium price.

The RFP was released on May 19, 2011. The solicitation was advertised in publications of general circulation, advertised in Transit Intelligence (e-newsletter), and posted on RT's website under Contracting Opportunities. A pre-proposal meeting was held on June 1, 2011, and three site visits were held in June and July to provide a reasonable amount of time for prospective Proposers and potential subcontractors to conduct an inspection of all UTDC Vehicles. The Proposal due date was extended at the request of potential proposers. On September 8, 2011, responsive proposals were received from Alstom Transportation, Inc. (Alstom) and Siemens Industry, Inc (Siemens).

A seven-member Selection Committee was convened to review and score the submittals; the Selection Committee consisted of: Vern Barnhart, Director, Light Rail; Darryl Abansado, Director, Civil and Track Design; Laura Espinoza, Maintenance Superintendent – Light Rail; Eric Oparko, Quality Assurance Administrator; Craig Norman, Senior Systems Engineer; Reggie Silva, Maintenance Supervisor; and Kerry Kopp, Maintenance Trainer - Light Rail.

The Selection Committee scored the written proposals, opened the sealed price proposals, and the scoring resulted in a determination that both firms were in the competitive range. The total score possible was 100 points from each evaluator (700 points total), with 60 points available from each evaluator (420 points total) for the technical portion, including:

Page 3 of 13

				0
Agenda	Board Meeting	Open/Closed	Information/Action	Issue
Item No.	Date	Session	Item	Date
11	06/11/12	Open	Action	06/01/12

Subject: Denying Alstom Transportation Inc.'s Protest and Conditionally Awarding a Contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industry, Inc.

- 10 points for firm experience, financial capacity, subsystem supplier experience and manufacturing capability;
- 3 points for referenced projects;
- 12 points for project staffing and experience; and
- 35 points for the technical submittal—approach to accomplish the work, quality control, compliance with technical specifications, relevant design and manufacturing of subsystems, and project schedule)

A total of 40 points were available from each evaluator for the price (280 points total), with the lowest price receiving the full 40 points and the other proposer receiving a pro-rated pricing score determined by a mathematical formula.

WRITTEN EVALUATIONS	Possible Points*	Alstom*	Siemens*	Siemens Point Advantage
Part 1 - The Firm	70	51	61.5	10.50
Part 2 - Referenced Projects	21	16	14	-2.00
Part 3 - Project Staffing & Experience	84	40.5	77	36.50
Part 4 - Technical Submittal	245	166.5	200.5	34.00
Part 5 - Price Proposal	280	280	224	-56.00
Total:	700	554	577	23.00

*Reflects aggregate points from all seven evaluators

The Selection Committee concluded that oral presentations were unnecessary and opted to enter directly into formal negotiations with both firms. A contract negotiation meeting was held on site with each firm. RT staff met with Alstom on October 27, 2011 and with Siemens on October 28, 2011, followed by correspondence back and forth to negotiate the technical specifications, price, terms, and conditions. Final Offers were requested on January 31, 2012.

After final evaluation and scoring of all Proposals and Final Offers, and completion of a cost analysis, the results were as follows:

FINAL OFFERS	Possible Points*	Alstom*	Siemens*	Siemens Point Advantage
Part 1 - The Firm	70	43.5	62.5	19.00
Part 2 - Referenced Projects	21	14.5	15.5	1.00
Part 3 - Project Staffing & Experience	84	26.5	79	52.50
Part 4 - Technical Submittal	245	159	206	47.00
Part 5 - Price Proposal	280	280	224	-56.00
Total:	700	523.5	587	63.50

*Reflects aggregate points from all seven evaluators

Page 4 of 13

				5
Agenda Item No.	Board Meeting Date	Open/Closed Session	Information/Action Item	lssue Date
11	06/11/12	Open	Action	06/01/12

Subject:	Denying Alstom Transportation Inc.'s Protest and Conditionally Awarding a
	Contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industry, Inc.

Siemens received higher scores than Alstom in every category other than price.

The Selection Committee determined that the Final Offer from Siemens was the most advantageous proposal for RT despite the higher price, for the reasons set forth below.

C. Justification for Award

1. Evaluation of Siemens proposal

a. The Firm

Siemens Mobility Division in Sacramento specializes in the design, systems integration, assembly, testing, commissioning, and aftermarket support of LRVs and employs over 700 experienced professionals, engineers, technicians, and skilled workers. Siemens' core experience is in light rail vehicle manufacturing and it is the number one manufacturer of LRVs in North America. RT's experience with Siemens support has been consistent since the purchase of the U2a Vehicles in approximately 1986. Siemens has the financial strength and capability to finance the work. All of Siemens' proposed major subsystems suppliers met RT's requirements and have proven success with Siemens. These subsuppliers have been producing similar systems in the light rail industry for many years.

b. Referenced Projects

Siemens' experience in vehicle overhaul and retrofits encompasses both complete vehicle overhauls as well as specific system retrofits. Its refurbishment projects include all of the major elements, such as trucks, HVAC, brakes, doors, and communication systems for customers including San Diego, St. Louis, Los Angeles, Pittsburg, and Edmonton. RT's specific experience with Siemens includes the communication system retrofit for the Siemens U2a light rail vehicles. Through redesign of Construcciones y Auxiliar de Ferrocarriles (CAFs) original design, Siemens engineering increased productivity and saved labor costs on the retrofit.

c. Project Staffing and Experience

Siemens intends to perform the bulk of the activities locally at RT and at Siemens' French Road facility. Its experienced engineering staff is based on French Road, which will make it convenient for RT staff to coordinate work, perform inspections, and attend meetings.

The Project Manager assigned to this project has impressive qualifications and extensive light rail experience with Siemens and holds a master's degree in electrical engineering. He has a proven record of experience with RT in successfully managing the LRV communications system retrofit in 2006. For that project, he demonstrated his ability to bring the project in on time, within budget,

Page 5 of 13

_					<u> </u>
	Agenda	Board Meeting	Open/Closed	Information/Action	Issue
	Item No.	Date	Session	Item	Date
	11	06/11/12	Open	Action	06/01/12

Subject:	Denying Alstom Transportation Inc.'s Protest and Conditionally Awarding a
	Contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industry, Inc.

and without change orders or additional charges. Siemens also proposed modifications that enhanced productivity and offered long-term ease-of-maintenance to RT's maintenance staff. RT's overall experience with Siemens has been favorable.

Siemens has immediate access to engineers, Quality Control inspectors, and additional labor to support a major refurbishment project such as this one.

d. Technical Submittal

Siemens, in its written proposal and during contract negotiations, demonstrated a clear understanding of the project by fully analyzing and addressing every step in the refurbishment process, asking detailed questions, and providing an in-depth response to all areas of the technical requirements.

The Evaluation Committee has confidence that Siemens will provide the aftermarket support that RT will need. Warranty work will be provided at the Sacramento facility, where warranty claims can be handled in a more expeditious and timely manner, given Siemens' immediately-available resources.

2. Evaluation of Alstom's Proposal

a. The Firm

Alstom Transport serves the rail market by supplying fully-integrated commuter rail transport systems and a full range of rolling stock products, as well as traditional and advanced signaling systems, infrastructure solutions, service and maintenance. Alstom has a Mare Island, California location for refurbishment of commuter rail vehicles for Amtrak. Alstom manufactures commuter rail vehicles. As a firm, Alstom is experienced in rebuilding independent systems on commuter rail. Alstom does not have recent experience in refurbishing light rail vehicles. The propulsion system Alstom manufactured for RT's CAF fleet of LRVs has experienced persistent problems. During negotiations, the individuals representing Alstom displayed a lack of knowledge about the existing relationship with RT and the problems experienced with the propulsion system, creating concerns among the evaluators about corporate cohesion and long-term support. RT has no concerns regarding Alstom's financial capacity.

Alstoms original major subsupplier for the Auxiliary Power System (APS) had no experience in designing and manufacturing an APS system and was rejected by the evaluators. The evaluators questioned Alstom's decision to choose an unknown, unproven APS supplier that had never designed the most complex sub-system required for the LRVs. During negotiations, Alstom, at RT's request, proposed a replacement manufacturer that the evaluators accepted. RT has no concerns regarding Alstom's other proposed subsuppliers and manufacturing capabilities.

Page 6 of 13

_					<u> </u>
	Agenda	Board Meeting	Open/Closed	Information/Action	Issue
	Item No.	Date	Session	Item	Date
	11	06/11/12	Open	Action	06/01/12

Subject:	Denying Alstom Transportation Inc.'s Protest and Conditionally Awarding a
	Contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industry, Inc.

b. Referenced Projects

Alstom's proposal provided references for commuter and heavy rail projects but no light rail experience. Staff performed research using referenced agencies' websites, trade-specific websites, and contacted Caltrans for additional information; however, ultimately, the evaluators determined that Siemens understanding of LRVs and having several overhaul projects outweighed Alstom's many projects working on commuter and heavy rail.

c. Project Staffing and Experience

Alstom proposed to hire temporary personnel for requisite disciplines, including Quality Control engineers, once a contract was awarded. Alstom did not indicate that it has readily-available additional resources required to support a major refurbishment project such as this one.

During contract negotiations, Alstom, at RT's request, proposed a replacement Project Manager. After review of his credentials and his limited experience at Alstom, the Selection Committee had continuing concerns with the Project Manager and the entire project team because of their lack of rail refurbishment experience and, specifically, lack of experience with light rail vehicles.

d. Technical Submittal

The Selection Committee determined that Alstom failed to demonstrate it has a clear understanding of the project. Its written proposal lacked detail, and during contract negotiations it was apparent that Alstom does not have existing infrastructure, tooling, skills, experience or staffing to complete the work on the UTDC LRV refurbishment. Due to the lack of details in Alstom's proposal, combined with the inexperienced staff proposed for this project, the Selection Committee saw a greater risk for Contract Change Orders, additional charges, and delays.

Alstom proposes to transfer warranty and aftermarket support to Train-Life Service (TLS) located in Illinois after completion of the project. A major concern for the refurbishment project is that the local Alstom project team is different than the TLS Midwest support team and TLS may not be able to maintain the equipment due to its lack of knowledge of the project. Since TLS is located in the Midwest, repairing equipment would be costly in terms of freight costs and added turn-around time. The evaluators felt there was a risk to RT of having LRVs out of service.

3. Pricing Analysis

SourceTotal Contract PriceSiemens\$19,890,099.70*Alstom\$15,976,270.00Engineering Estimate\$20,936,520.44*Price later reduced after negotiating the use of a Parent Company Guarantee in lieu of Performance Bond.

Page 7 of 13

ſ	Agenda	Board Meeting	Open/Closed	Information/Action	Issue
	Item No.	Date	Session	Item	Date
	11	06/11/12	Open	Action	06/01/12

Subject:	Denying Alstom Transportation Inc.'s Protest and Conditionally Awarding a
	Contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industry, Inc.

Price points were allocated on a mathematical basis in accordance with the RFP. Alstom received the maximum allowed points for submitting the lowest price.

However, Staff was concerned that Alstom's proposal, with its lack of detail, did not accurately reflect the amount of work required to successfully complete the refurbishment project. A lower-priced proposal can result in more Contract Change Orders. For example, at UTA, a 55% overrun in the project costs was contributed to by a vague scope of services and proposal. Alstom also front-loaded the milestone payment schedule for its project schedule and vehicle design, meaning that approximately one-fourth of the entire contract price would be paid out by the time the first vehicle is completed. In contrast, Siemens' up-front costs were significantly lower and vehicle design costs are spread out throughout the life of the project. Although these concerns did not affect the pricing scores, they did lower Alstom's technical submittal score because they increase the project and schedule risk for RT.

Staff believes that Siemens pricing reflects the true costs of the project. Siemens price is lower than the Engineer's Estimate and has been determined to be fair and reasonable. Since technical superiority is considered vital to a successful project, RT reserved the right to award a contract on other than the lowest-price basis if a higher-priced Proposal was determined to be more advantageous to RT.

4. Summary of Trade-offs

The trade-offs for selecting the higher-priced proposer are as follows: Siemens has the technically superior proposal that is comprehensive; has better project management and support staff; and has solid light rail experience. Siemens' approach to the work is superior to Alstom's. For example, prior to the design phase, Siemens proposes to teardown the first 2 LRVs and remove the truck assemblies from the last LRV to use as floaters. The advantage to Seimens' methodology is that it provides a means to uncover issues that can be resolved during the design process and adds flexibility to the project schedule. In contrast, Alstom's proposed plan is to begin the design phase prior to vehicle teardown; therefore, much greater risk exists for Contract Change Orders due to subsequently necessitated design changes.

Siemens will provide aftermarket warranty at its local facility with staff that has UTDC LRV knowledge. Siemens employees are trained specifically on light rail vehicles and will continue to be available after project completion. In contrast, Alstom would hire local temporary employees and, after project completion, transfer all aftermarket support for the vehicles to TLS in Illinois. RT's experience is that Alstom's support of its propulsion system installed on CAF vehicles is inconsistent and frequently causes vehicles to be out of service. In fact, Alstom has been unable to repair some of its own components. Alstom has, at times, taken up to a year to return repaired parts to RT. RT believes that Siemens will provide more timely aftermarket support.

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Agenda Item No.	Board Meeting Date	Open/Closed Session	Information/Action Item	Issue Date			
11	06/11/12	Open	Action	06/01/12			

Page 8 of 13

Subject:	Denying Alstom Transportation Inc.'s Protest and Conditionally Awarding a
	Contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industry, Inc.

The Selection Committee discussed the trade-offs for each proposal and agreed that Siemens submitted the technically superior proposal that provides less risk to RT and has the greatest potential for a successful and timely outcome. Siemens is financially sound and has the capability in terms of financial responsibility and personnel required to accomplish the work.

Pursuant to the revised Disadvantaged Business Enterprise (DBE) regulation in 49 C.F.R. Part 26 and RT's revised DBE Program, no DBE participation goal was established for this project.

The RFP requirements included a Performance Bond or Irrevocable Letter of Credit for contract execution. During contract negotiations, Siemens and RT agreed to instead use a Parent Company Guarantee (PCG). The form of the PCG was agreed upon by both parties and resulted in a cost savings of \$214,000. The total contract amount will be reduced by \$214,000 from \$19,890,099.70 to \$19,676,099.70.

Siemens Industry, Inc. completed the required Buy America Certificate for Rolling Stock that certifies compliance with the requirements of 49 U.S.C. Section 5323(j)(1), and the applicable regulations in 49 C.F.R. Part 661. The required Buy America Pre-Award Audit will be completed after the Board makes conditional award of the Contract.

D. Bid Protest

All protest documentation is included in Attachment A.

The following is a chronology of events that have occurred regarding the Protest.

DATE EVENT

- 2/21/12 RT staff issued letters to both Alstom and Siemens of its intent to recommend a conditional award (subject to pre-award Buy America audit) of the Contract to Siemens.
- 2/23/12 Alstom submitted a properly-filed protest (hereinafter referred to as "Protest") protesting Staff's decision to recommend award of the Contract to Siemens. The grounds for protest were stated as: (1) RT may have abused its discretion by making an "arbitrary or capricious" decision that the proposal from Siemens was superior; and (2) RT's application of its evaluation process may be flawed because it does not allow for pre-award debriefing.
- 2/28/12 RT staff issued a preliminary response letter to Alstom addressing the initial arguments made by Alstom and providing notice that a meeting had been set for March 8, 2012, at which Alstom and RT staff would attempt to resolve the Protest.

Page 9 of 13 Agenda Board Meeting Open/Closed Information/Action Issue Item No. Date Session Date Item 11 06/11/12 06/01/12 Action Open

Denying Alstom Transportation Inc.'s Protest and Conditionally Awarding a Subject: Contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industry, Inc.

- 3/8/12 Meeting regarding protest held with RT representatives and Alstom representatives.
- 3/13/12 Alstom submitted a letter to RT requesting further consideration of its Protest. Alstom restated its grounds for the protest: (1) RT's conclusions regarding Alstom's refurbishment experience were not based on objective criteria; (2) RT's conclusions regarding potential deficiencies in Alstom's capabilities were incorrect; (3) RT's interpretation of the results of the negotiations were capricious; (4) results of the application of the mathematical price calculation are questionable; and (5) the evaluation process, even if properly applied, led to a result that is not most advantageous.
- 3/22/12 Documents that RT relied upon to make its recommendation were sent to both Alstom and Siemens.
- 4/5/12 Alstom submitted a letter to RT stating points which it felt deserve further consideration, specifically: (1) Alstom has more extensive overhaul and modernization experience; (2) the Siemens proposal shifts costs and risk to RT; (3) the Siemens proposal delays the delivery by 60 days; and (4) the evaluation process unfairly favored Siemens because it was a "local" company.
- 4/18/12 RT opted to seek the services of an independent investigator to further investigate the protest. A contract was executed with Raul V. Bravo + Associates, Inc.
- 5/24/12 RT received the final report from the independent investigator. Based on the report, Alstom and Siemens were notified of the General Manager/CEO's decision to deny Alstom's protest and to recommend that the RT Board of Directors, which is the awarding authority, deny Alstom's February 23, 2012 protest and conditionally award the Contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industry, Inc.
- 5/30/12 Alstom Letter to RT requesting the protest continue to the RT Board for decision.
- 6/4/12 Alstom Letter to RT with new evidence submitted for protest hearing.
- 6/4/12 Siemens Letter to RT, Statement to the Board.

E. **Response to Alstom's Arguments**

The preliminary response letter issued on February 28, 2012 (included in Attachment A) addressed the initial arguments advanced by Alstom. The staff response to the remaining arguments (articulated in the March 13, 2012 and April 5, 2012 letters from Alstom) follows:

Page 10 of 13

				<u> </u>
Agenda	Board Meeting	Open/Closed	Issue	
Item No.	Date	Session	Item	Date
11	06/11/12	Open	Action	06/01/12

Subject:	Denying Alstom Transportation Inc.'s Protest and Conditionally Awarding a
	Contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industry, Inc.

March 13, 2012 Letter

(1) <u>RT's conclusions regarding Alstom's refurbishment experience were not based on</u> <u>objective criteria</u>

As discussed above, while Alstom, as a firm, has extensive heavy rail refurbishment experience, its lack of light rail experience, combined with the inexperienced project team and demonstrated lack of corporate cohesion, was appropriately considered by the evaluators and is reflected in Alstom's score in "The Firm", "Project Staffing and Experience," and "Technical Submittal" categories. Alstom's past corporate experience with refurbishment was appropriately credited in the "Referenced Projects" category.

(2) <u>RT's conclusions regarding potential deficiencies in Alstom's capabilities were incorrect.</u>

For the reasons detailed above, regardless of Alstom's overall corporate capabilities, the evaluators had legitimate concerns about Alstom's abilities to perform on *this project* based on: lack of detail in the proposal, inexperienced project manager, an unidentified QC manager, and proposed temporary staffing.

(3) <u>RT's interpretation of the results of the negotiations were capricious</u>

Alstom criticizes RT's use of the words "closed" or "acceptable" as part of the negotiations, arguing that those words gave the misleading impression that Alstom's response was adequate and would lead to a higher score in the final evaluation. In a negotiated procurement, the negotiations offer an *opportunity* for proposers to better their proposals. In this case, RT staff, including the evaluators, requested additional information from Alstom during the negotiation process. In many instances, the same information was presented in a different format, leading the evaluators to believe it would be fruitless to *again* request additional information. The "closed" designation simply meant that further discussions or negotiations would not improve Alstom's proposal. The evaluators felt it would be detrimental to the competitive process to essentially lead Alstom to the desired responses that would result in a superior proposal.

Alstom's criticism is also based on an erroneous assumption that the scores for the final proposal must be linear modifications of the scoring of the initial proposal and reflect only the "on paper" changes to the proposal. For example, Alstom criticizes a negligible reduction in the "referenced projects" score between the initial and final proposals.

			T uge 11 of 10				
Agenda Item No.	Board Meeting Date	Open/Closed Session	Information/Action Item	Issue Date			
11	06/11/12	Open	Action	06/01/12			

Subject: Denying Alstom Transportation Inc.'s Protest and Conditionally Awarding a Contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industry, Inc.

As an initial note, the evaluators are not bound by their initial scoring and score the final proposals using a blank score sheet. The initial proposal, information from the negotiations, and the final proposal are all considered in the final scoring. In the case of the Referenced Projects category (where Alstom lost 1.5 points out of 21) the "value" of the referenced projects in demonstrating the experience necessary to complete RT's project was reduced based on the evaluators' determination that Siemens understanding of LRVs and experience with several overhaul projects outweighed Alstom's many projects working on commuter and heavy rail.

Page 11 of 13

(4) Results of the application of the mathematical price calculation are questionable

The pricing scores were determined in accordance with a strict mathematical formula, as discussed above. Alstom's criticism is based on the fact that both Siemens and Alstom lowered their prices by approximately the same amount between the initial and final proposals. Alstom appears to be suggesting collusion between RT and Siemens to maintain the same point differential. There is no evidence to support this conclusion; the reduction in price by Siemens was based directly on agreed-upon clarification of and changes to the work. Moreover, given the significant difference in the technical scores, the idea that there was collusion to avoid the loss of a single point in the pricing score is not credible.

(5) <u>The evaluation process, even if properly applied, led to a result that is not most</u> <u>advantageous to RT.</u>

This is a criticism not of the evaluation process, but of the procurement methodology selected for this procurement. In procuring the refurbishment services, RT had three procurement methodologies available: (1) low-bid; (2) technically acceptable, lowest price; or (3) the "trade off" process. After carefully evaluating UTA's experience, RT staff felt it was critically important to contract with a firm that demonstrated a clear understanding of the UTDC refurbishment project and was willing to commit resources to completing the project satisfactorily, on time, and on budget. For that reason, staff determined that it was appropriate to allocate 60% of the points in the evaluation process to technical capability.

Alstom had an opportunity, during the solicitation period, to question the method of procurement. Having submitted a proposal knowing the "rules of the game", it is disingenuous for Alstom to now question that methodology because it did not result in an outcome that favors Alstom. Nonetheless, this argument is without merit for the reasons discussed in this issue paper.

Page 12 of 13

				<u> </u>			
	Agenda Item No.	Board Meeting Date	Open/Closed Session	Information/Action Item	lssue Date		
ŀ	11	06/11/12	Open	Action	06/01/12		

Subject: Denying Alstom Transportation Inc.'s Protest and Conditionally Awarding a Contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industry, Inc.

April 5, 2012 Letter

(6) Alstom has more extensive overhaul and modernization experience.

To reiterate what has already been stated, regardless of Alstom's experience as a firm with refurbishment, that experience was not reflected in the technical proposal received from Alstom, nor did Alstom propose to staff the UTDC project with individuals experienced with light rail refurbishment projects.

(7) The Siemens proposal shifts costs and risk to RT

During the negotiation process, RT agreed to several small changes in the project scope and commercial terms and conditions that reduced the Siemens price. These changes reflect the fact that Siemens analyzed the scope of work to a high level of detail, carefully examined the vehicles and work space and demonstrated to RT that either: (1) that there was a low risk that the eliminated work needed to be performed; or (2) that burden to RT's resources of the proposed change would be negligible.

Alstom had an equal opportunity to propose such changes; it did not.

(8) The Siemens proposal delays the delivery by 60 days;

The 60 day delay is not for the entire delivery schedule of 21 vehicles but only the last vehicle. Siemens' project plan begins with the removal of the truck assemblies from the last vehicle to use as floaters. This allows Siemens to have one carset of trucks in process ahead of schedule. The advantage of this approach is that floaters will be used to improve the work flow. The first 20 vehicles will be delivered on schedule; only the delivery of the last vehicle will be extended by 60 days, which does not impact RT negatively in any way. The benefits of this superior work plan outweigh the delay of the delivery of the last vehicle.

(9) The evaluation process unfairly favored Siemens because it was a "local" company

The federal procurement rules flatly prohibit RT from awarding points or making a procurement decision based solely on a "local" or geographic preference. However, those same rules allow RT to account, in the evaluation process, for logistical issues that may arise from dealing with a company in a distant location. In this case, there were two concerns that arose from Alstom's location: (1) the inexperienced project staff would have inadequate local support in the event of problems with the work—higher-level personnel would have to travel to Sacramento to respond to issues during the course of the work; and (2) RT's experience with the aftermarket support provided by Alstom reasonably led evaluators to believe that the transfer of aftermarket support to

Page 13 of 13

				<u> </u>
Agenda	Board Meeting	Open/Closed	Issue	
Item No.	Date	Session	Item	Date
11	06/11/12	Open	Action	06/01/12

Subject: Denying Alstom Transportation Inc.'s Protest and Conditionally Awarding a Contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industry, Inc.

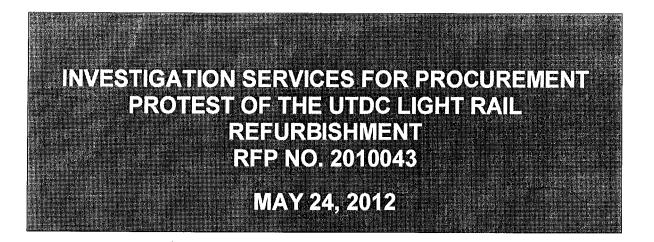
distant forces with no familiarity with the project would result in the UTDC cars being out of service.

Staff recommends that the Board adopt Resolution A, denying the Protest of Alstom Transportation, Inc. of RT Staff's intent to recommend award of the contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industries, Inc., and conditionally awarding the UTDC Light Rail Vehicle Refurbishment contract to Siemens Industry, Inc., for an amount not to exceed \$19,676,099.70.

However, if the Board, after evaluating all of the evidence presented, determines that the protest by Alstom is merited, the alternative action for the Board to take is to adopt Resolution B, rejecting all Proposals. Staff would then have to evaluate how to proceed to timely accomplish the work.



SACRAMENTO, CA



SUBMITTED BY: RAUL V. BRAVO + ASSOCIATES, INC. 1889 PRESTON WHITE DRIVE, SUITE 202 RESTON, VA 20191 T: 703-326-9092 F: 703-326-9096 E MAIL: <u>CONTACT@RVBA.COM</u> WWW.RVBA.COM

Table of Contents

Executive Summary	3
Purpose	4
Background	
Relevant Documents Reviewed	
Discussion	12
Findings	16

Executive Summary

To meet RT's need for additional rolling stock for upcoming Light Rail service expansions, RT took advantage of the availability of surplus equipment from Santa Clara VTA and purchased 21 UTDC Light Rail Vehicles (LRV's) in 2003-4. This acquisition was concurrent with the purchase of 29 identical units from the same fleet of 50 LRV's by Utah Transit Authority (UTA).

All of these LRV's needed midlife refurbishments as well as technical upgrades, and UTA chose to use local funds to move forward with their rehab program. The procurement methodology chosen by UTA for their rehab effort resulted in an increase of 55% in the final value of their contract over the original price.

RT's staff took advantage of the opportunity to study the entirety of UTA's refurbishment program and used the lessons learned at UTA to structure RT's own RFP for this effort. After careful analysis, RT staff determined that of all procurement methodologies allowed under the applicable Federal statutes and local ordinances, the one that provides the best opportunity to reduce the risk of a cost increase on the scale of UTA's is the Best Value approach to contracting.

Following RT Board's approval of the Best Value contracting approach, RT staff completed all necessary documentation and the RFP for the work was issued in May of 2011. From that date forward RT staff practiced strict adherence to the rules governing a Best Value procurement.

Proposals were received by RT from two contractors and the requisite steps of negotiations, communications and Final Offers were followed as prescribed by the Governance of Best Value. Scoring of the Final Offers by RT staff resulted in the selection of Siemens as the preferred Proposer for recommendation of award of the contract.

Upon receipt of RT's notice of the selection of Siemens, the other Proposer (Alstom) immediately filed a protest within the guidelines of the procurement. Multiple exchanges of letters between RT and Alstom ensued, and a face-to-face meeting was held in hopes of resolving the Protest.

These exchanges between RT and Alstom did not result in a resolution of the Protest, so RT chose to issue an RFQ seeking the services of an independent outside reviewer to study the documentation of the procurement, its adherence to required Governance and to issue a recommendation on how to proceed.

The findings of the Study are that RT has carefully adhered to the Governance requirements of Best Value procurements and RT staff has methodically administered this RFP process in its execution. There are no issues raised within the Alstom Protest that justify overturning the Staff recommendation for award to Siemens.

Purpose

The consulting firm Raul V. Bravo + Associates, Inc. (RVB+A) is to analyze: the protocol followed by RT's staff in the evaluation of Proposals submitted by the proposers; the observance of governing directions included within the Federal Transit Administration's and other relevant Governing Manuals; and the issues raised in Alstom's protest letter and supplemental submissions. Alstom's submissions were filed in response to the Sacramento Regional Transit Districts' determination that Siemens Industry, Inc.'s Proposal submitted in response to RFP No. 2010043 was most advantageous to the District.

Based upon that analysis, the consultant is to provide its findings. These findings may be considered a recommendation as to how to proceed.

Background

In 2003, RT acquired 21 UTDC Light Rail Vehicles (LRVs) from Santa Clara Valley Transportation Authority (VTA). These vehicles were originally placed into service at VTA starting in 1987 and were due for a routine midlife refurbishment at the time of their purchase by RT. In addition, they required necessary technical modifications to ensure their compatibility with the infrastructure of RT's light rail system and compliance with the Federal Americans with Disabilities Act (ADA).

RT was fortunate that its acquisition of these vehicles from VTA coincided with Utah Transit Authority's (UTA) simultaneous purchase of the balance (29 cars) of VTA's older fleet of 50 UTDC LRV's. The availability of significant local funding sources allowed UTA to forgo the time consuming processes required to secure Federal allocations, so UTA was able to quickly push ahead with the refurbishment of their UTDC equipment. Lessons learned from the UTA program were studied by RT's staff and served as a directly relevant test lab for the subsequent development of RT's refurbishment program.

The lessons from the UTA rehab were blended in with the professional experience gained by two of RT's key in-house personnel who were directly involved in commissioning and maintaining the UTDC cars when they were received and operated at VTA. This combination of experiences lead to the decision to hire LTK Engineering to inspect the UTDC cars at RT and to then develop the technical specification for the rehabilitation of those cars. Lessons from the UTA program also served to demonstrate to RT Staff and Management that the procurement methodology that would provide the greatest potential for a successful cost-effective rehabilitation of the UTDC cars would be the Best Value approach provided for in the existing Federal, and State statutes and local ordinances that govern the funding streams to be used to pay for the work.

Key milestones that flowed from the adoption and application of the Best Value methodology were as follows:

July 2010 - RT completes Peer Review of UTA's UTDC Refurbishment Program:

- Development of Technical Specification by LTK begins,

- Development of Commercial Terms and Special Provisions for the RFP begins.

March 2011 - RT Management formally recommends, and RT Board officially approves, Best Value procurement approach to managing UTDC LRV refurbishment.

May 19, 2011 - Technical Specification, Commercial Terms and Special Provisions completed and RFP issued.

June 1, 2011 - Pre-Proposal Meeting and first official viewing of UTDC vehicles by prospective proposers held at RT's Metro Heavy Repair Facility site.

June 13, 2011 - Second site visit by prospective proposers to inspect UTDC vehicles

July 12, 2011 - Third site visit by prospective proposers to inspect UTDC vehicles.

Multiple dates - RT issues RFP Addenda and Letters of Clarification, responds to written questions from RFP Planholders.

September 8, 2011 - Proposals received from Alstom and Siemens. Copies of the Technical Sections of the two Proposals are distributed the same day to RT Proposal Evaluation Committee members, including instructions for them to follow in independently preparing their scoring of the Technical portions of the two Proposals. Prices were not opened and were kept separate and under seal by RT Procurement.

September 16, 2011 - RT Proposal Evaluation Committee meets to begin group discussions of scoring sheets for Technical Proposals and the documentation of individual evaluation comments by members.

September 16, 2011 - Price Proposals opened and total scores compiled for Alstom and Siemens, both of whom are determined to be within the competitive price range as established by the LTK estimate.

October 10, 2011 - Letters of invitation sent to both firms inviting them to participate in separate face-to-face negotiations with RT, scheduled for October 27 and October 28, 2011. Letters included lists of items to be discussed on those dates.

October 27, 2011 - Negotiations held between RT and Alstom.

October 28, 2011 - Negotiations held between RT and Siemens.

These negotiation meetings were followed up by written exchanges between RT and the Proposers to secure clarifications and the refinement of their respective offerings, to the extent permitted under the Governance of this procurement. These exchanges continued until the individual Proposers sought no further answers or clarifications from RT.

November 4, 2011 - Final submittal of clarifications received from Alstom in response to issues raised during Negotiations.

January 27, 2012 - Final submittal of clarifications received from Siemens in response to issues raised during Negotiations. It should be noted here that this additional time is a direct reflection of the extensive and thorough level of investigation sought by Siemens to ensure clarity in its understanding of the work product necessary to meet the needs of RT for this refurbishment program. The staff did not lead Siemens into this deeper discussion; it was a result of initiatives taken by Siemens as provided for within the Governance of a Best Value procurement.

January 31, 2012 - Final Offers are requested from both Alstom and Siemens, with a due date of February 8, 2012.

February 8, 2012 - Final Offers received from both Proposers by RT.

February 10, 2012 – RT Proposal Evaluation Committee begins independent scoring of Final Offers.

February 15, 2012 - RT Proposal Evaluation Committee members meets to begin group discussions of scoring sheets for Final Offers and documents their comments. Members make a determination that Siemens was found overall to be the most advantageous proposal to RT.

February 21, 2012 - Notice of Intent to Recommend Conditional Award of Contract letters were sent to Alstom and Siemens, with the Recommendation of Contract Award to Siemens.

February 23, 2012 - Letter of Protest received from Alstom.

February 28, 2012 - RT sends Preliminary Response to Alstom and notifies Siemens of Alstom's Protest.

March 8, 2012 - RT meets with Alstom to discuss and attempt to resolve the protest, as called for in the protest procedure.

March 13, 2012 - Alstom submits letter to RT seeking further consideration of their Protest of the RT Staff decision and requesting a copy of the documents that RT relied upon to make its recommendation.

March 20, 2012 - RT agrees to release requested documents to Alstom. A copy of the same documents was simultaneously sent to Siemens, along with a copy of the Alstom Protest correspondence. All of these documents were transmitted to both Proposers on March 22, 2012.

March 23, 2012 - RT issues Request for Quote (RFQ) for consulting services to perform an independent investigation of Alstom's procurement protest.

April 5, 2012 - Alstom submits letter to RT in response to RT's letter of March 20, 2012 concerning the Protest filed on February 23, 2012. Letter requests reconsideration of multiple points of RT's scoring and evaluation and disputes RT's conclusions leading to RT's Recommendation of Siemens.

April 24, 2012 - RT notifies RVB+A of its selection to provide consulting services in investigation of Alstom's protest and issues Notice To Proceed.

April 26, 2012 - RT holds consulting services project kickoff meeting with Gary Hallman of RVB+A.

May 25, 2012 - Due date for RVB+A's summary report to RT.

Relevant Documents Reviewed

DOCUMENT	ISSUED BY	RELEVANT	RT'S	COMMENTS
		SECTIONS/ISSUES	COMPLIANCE	
RFP No. 2010043 + Addenda #'s 1,2&3, including Protest Procedures	Sacramento RT	All Sections	Thorough, complete and carefully documented	Complied with governing laws, ordinances, policies and procedures
Alstom Proposal submitted September 8, 2011	Alstom Transportion Inc. (sic)	All Sections	Thoroughly reviewed with documented comments	Alstom responded with a proposal that was more appropriate for a Lowest Cost Technically Compliant Procurement, not a Best Value Procurement
Siemens Proposal submitted September 8, 2011	Siemens Industry, Inc. Mobility Division	All Sections	Thoroughly reviewed with documented comments	Siemens Proposal was in conformance with a Best Value Procurement
RT summary of Proposal, negotiations and related materials from Alstom	Sacramento RT	All Sections	Thoroughly reviewed with documented comments	Alstorn documentation is significantly less detailed than what was provided by Siemens. RT evaluators determined that it did not demonstrate a clear understanding of the details of the work necessary to fulfill the contract within RT's budgetary estimate
RT summary of Proposal, negotiations and related materials from Siemens	Sacramento RT	All Sections	Thoroughly reviewed with documented comments	RT's evaluators determined that Siemens' documentation demonstrated a clear and detailed understanding of the scope of work that is necessary to fulfill the contract within RT's budgetary estimate, particularly in comparison to the Alstom documentation
Final Offer submitted by Alstom on February 8, 2012	Alstom Transportation Inc.	All Sections	Thoroughly reviewed with documented comments	Alstom's Final Offer was not judged to have sufficiently enhanced the quality and clarity of their initial Proposal

9 of 16

		udged by RT nuch greater	al Offer &	work that can	s stage in the	provided	ed supported		provided	ed supported		vith Alstom at	2 to discuss			luthorizing	ly funded	Sest Value	that was	ers within the	e rules of this		ium RT	ition to be	nin RFP No.
COMMENTS		Siemens' Final Offer was judged by RT evaluators to be providing much greater	clarity than Alstom's Final Offer &	Proposal to all elements of work that can	reasonany be usinted at this stage in the process.	All Committee Members provided	complete scoring and related supported	commentary	All Committee Members provided	complete scoring and related supported	commentary	Face-to-face meeting held with Alstom at	RT offices on March 8, 2012 to discuss	Protest		Provides legal basis for authorizing	various types of Federally funded	DT antiofical that it had more all	INT was saustied intat it had received the level of clarity and detail that was	achievable with both Proposers within the	Governance provided by the rules of this	procurement	Established the minimum RT	requirements for information to be	provided by Proposers within RFP No. 2010043
RT'S	COMPLIANCE	Thoroughly reviewed with documented	comments			Thoroughly reviewed	with accumented		Thoroughly reviewed	with documented	comments	Reviewed and	responded to in	compliance with RT Procurement Policy	Manual	Full Compliance		Euth Compliance					Full Compliance		
RELEVANT	SECTIONS/ISSUES	All Sections				All Sections			All Sections			Letters dated	February 23, March	13 & April 5, 2012		All Sections		Sontion 1 E E J	Request for Best	and Final Offer			Section 1.203:	Request for	Proposals
ISSUED BY		Siemens Industry, Inc.	Mobility Division			Sacramento RT	Committee	members	Sacramento RT	Evaluation	Committee members	Alstom	Transportation	Inc.		Federal Transit	Administration	Eadaral Trancit	Administration				Sacramento	Regional	I ransit Uistrict
DOCUMENT		Final Offer submitted by Siemens on February 8,	2012			Evaluation Earne			Final Proposal	Evaluation Forms		Materials submitted in	connection with Protest			FTA Circular 4220.1F		ETA Reet Practices	Procurement Manual.	Section 4.5.5.2			Sacramento RT	Administrative Code,	I Itle 1 - Procurement Ordinance

COMMENTS	Provided local agency basis for RT Board authorization of Negotiated Procurement through RFP No. 2010043	Provided Governance for RT staff administration of this protest procedure	Provided Governance for RT Staff administration of FTA Policies and RT Administrative Codes for RFP No. 2010043	Consulting firm LTK was retained to provide a technical specification as well as a price estimate prior to the issuance of RFP No. 2010043. Both Proposers submitted Final Offers within the range of LTK's price estimate	This document was not required under the Governance of Best Value procurement.
RT'S COMPLIANCE	Full Compliance	Full Compliance as of the date of preparation of this document (5-24- 2012)	Full Compliance	Full Compliance	This document was prepared by RT staff as an overview for internal use
RELEVANT SECTIONS/ISSUES	Section 1.406: Negotiated Procurement	Article VI: Bid/Proposal Protest Procedure	Chapter 8 - Competitive Proposal Contracts	Chapter 15 - Cost and Price Analysis	This was a review/recap of the entire procurement
ISSUED BY	Sacramento Regional Transit District	Sacramento Regional Transit District	Sacramento Regional Transit District	Sacramento Regional Transit District	Sacramento Regional Transit District
DOCUMENT	Sacramento RT Administrative Code, Title 1 - Procurement Ordinance	Sacramento RT Administrative Code, Title 1 - Procurement Ordinance	Sacramento RT Procurement Policy Manual issued December 30, 2009	Sacramento RT Procurement Policy Manual issued December 30, 2009	Procurement Review of UTDC Light Rail Vehicle Refurbishment RFP 2010043

Discussion

The UTDC LRV refurbishment program at UTA has been of benefit to RT in that the efforts in Utah provided a test bed for gaining valuable insights into what should be the most successful approach to follow for RT's own refurbishment program. It is clear from studying RT's RFP for this refurbishment that the lessons-learned at UTA were both understood and applied in the structuring of RFP No. 2010043.

UTA's refurbishment program was substantially complete by early 2010, to such an extent that RT staff was able to define their program plan secure in their knowledge of the direction that needed to be taken. Consulting firm LTK was then hired to inspect the UTDC cars at RT and to subsequently prepare the technical specification that was incorporated into the RFP.

LTK then used this knowledge, plus the lessons learned from the UTA program, to prepare the price estimate benchmark for RT's refurbishment. The vendor pricing proposals received by RT for this procurement are both within the LTK estimate of \$20,936,520.44 for this scope of work. This fact supports the validity of RT's approach.

FINAL OFFERS	Possible Points	Alstom	Siemens	Point Difference
Part 1 - The Firm	70	43.5	62.5	19.00
Part 2 - Referenced Projects	21	14.5	15.5	1.00
Part 3 - Project Staffing & Experience	84	26.5	79	52.50
Part 4 - Technical Submittal	245	159	206	47.00
Part 5 - Price Proposal	280	280	224	-56.00
Total:	700	523.5	587	63.50

The total score possible was 100 points from each evaluator, with 60 points available for the technical portion and 40 points maximum for the lowest total price.

As noted in the list of events provided in the Background section of this study, Alstom filed its Protest Letter on February 23, 2012. Multiple issues about RT's processes and conclusions were contained within that Protest Letter. A detailed reply to Alstom's letter of February 23rd was transmitted to Alstom from RT on February 28, 2012, over the signature of Mr. Mike Mattos, RT's Chief of Facilities and Business Support Services. Alstom's allegations were determined to lack merit by Mr. Mattos, but he offered Alstom a face-to-face meeting for further discussion in an attempt to resolve the protest.

Following the March 8th face-to-face meeting, Alstom submitted a Letter on March 13, 2012 supplementing its grounds for protest and requesting a copy of the documents that RT relied upon to make its recommendations. The specific points of Protest stated in Alstom's March 13th Letter are copied directly from that document and are shown in italics below, followed by this Study's response to each allegation as viewed through the language of the Regulations, Ordinances and Policies & Procedures that govern this Best Value procurement:

1.) *RT's conclusion regarding Alstom's refurbishment experience was not based upon objective criteria;*

Alstom does have more overall railcar refurbishment experience than Siemens. However, Siemens Proposal demonstrated a clearer understanding of the details of the work that will be necessary to deliver against this RFP. This clearer understanding by Siemens provided greater confidence to RT's evaluators that the price submitted by Siemens is reasonable and will be less subject to change orders resulting from the types of discoveries that typically occur in refurbishment projects. It should be noted that when UTA conducted its refurbishment of its UTDC cars, they opted to accept a much less detailed work scope definition from their Proposers than RT has for this RFP, and the UTA program experienced an overall cost increase of 55% above the initial bid/contract price. Such a percentage increase in the cost of RT's program would require overall funding of more than \$31 million dollars, versus the current LTK estimate of just over \$20 million.

2.) RT's conclusions regarding potential deficiencies in Alstom's cababilities (sic) were incorrect;

RT's Evaluation Committee did not conclude that Alstom lacks the corporate capabilities to perform refurbishment work. Under the Governance of this RFP, the Evaluation Committee must base its ratings upon what is presented to them within the confines of a response to the RFP for this project. Siemens Proposal demonstrated a stronger understanding of the work scope for this project, thereby providing greater detail in support of their proposed pricing than did Alstom.

3.) *RT's interpretation of the results of negotiations was capricious;*

Thorough review of the Proposals and Final Offers submitted by both Proposers and the documentation of RT's negotiations with both Alstom and Siemens does not support an allegation of capriciousness in RT's conclusions. Governance of this procurement specifically forbids RT from leading a Proposer to ways of improving their offer. Under the rules of Best Value, it is incumbent upon the Proposer to take the initiative to seek clarification of details not provided by the RFP. This pursuit of clarity was comparatively significant in favor of Siemens when reviewing the competing Proposals, Negotiation Documents and Final Offers.

4.) Results of the Application of the mathematical price calculation are questionable;

It must be noted that Alstom submitted this question before they had access to the pricing contained within Siemens Final Offer. Application of the price calculation formula contained within the RFP to Siemens Final Offer results in an adjustment of 3 points (out of a possible 700 total points). This adjustment does not alter the final scoring sufficiently to change the outcome of the Staff recommendation.

5.) The evaluation process, even if properly applied, led to a result that is not most advantageous;

This review supports the position that the evaluation process was applied in strict conformity to the Best Value Governance for this RFP and that RT benefitted from the Best Value approach. The challenges associated with seeking additional funds make it a necessity that RT select the contractor whose proposal provides the RT with the greatest confidence that it's pricing is based upon a clear understanding of the work that is to be done. Experience with refurbishments teaches that issues not evident at the time of a contract award will likely occur. In favoring the proposal submitted by Siemens, RT Staff is seeking to protect the Best Value for their available dollars by selecting the Proposer that has demonstrated the deepest understanding of the necessary work scope, thereby reducing the risk associated with the areas of work that will be subject to further discovery.

Following review of the documentation supplied to them by RT on March 22nd, Alstom submitted a letter on April 5th containing additional points of disagreement with RT's conclusions. A review of the items contained within Alstom's table of issues in this letter finds them to be relatively minor in terms of their financial impact upon the overall cost of this refurbishment program, and not significant enough to offset the difference in the scoring of the Technical Proposals submitted by the two competitors - even if all of the items were to somehow be found to be correctly and fairly claimable to the benefit of Alstom's score for their Final Offer. In fact, almost all of the items listed in Alstom's letter of April 5th are clarifications proposed by Siemens to generate cost savings to RT and are a direct reflection of Siemens detailed approach to gaining understanding and definition of the scope of work before submitting their Final Offer to RT. The choice by Alstom to not seek such additional clarifications and value enhancements within their submittals to RT was their own decision and, under the rules of Best Value as correctly administered by RT, the opportunity was fully open and available to them.

Findings

This study finds that in their administration of RFP No. 2010043, the Staff of RT has been thorough and fair in following procedures and practices in all areas. The study finds no areas of concern and believes that the Conclusions and Recommendations arrived at through the RFP process are sustainable and defendable under the rules governing this Best Value procurement.



SACRAMENTO REGIONAL TRANSIT DISTRICT PROCUREMENT SERVICES P.O. Box 2110 Sacramento, CA 95812-2110

Procurement Review of UTDC Light Rail Vehicle Refurbishment RFP 2010043

April 2012

NOTE: Exhibits 'A' through 'J' are not included in this Document

UTDC LIGHT RAIL VEHICLE REFURBISHMENT PROJECT

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Procurement Review of UTDC Light Rail Vehicle Refurbishment RFP No. 2010043 4/6/2012 2010043.Procurement Review.UTDC LRV.Refurb For IP.doc Page i of ii

UTDC LIGHT RAIL VEHICLE REFURBISHMENT PROJECT

Pre-Proposal Meeting	
Pre-Bid Inspections (site visits) Addendums	
Proposal Receipt	
Proposal Review	
Written Evaluation	
Schedule:	
Written Evaluation Scoring and Comments	14
Determination of Competitive Range	14
Negotiations	15
Request for Final Offer (Pricing and Updates to Proposal)	17
Final Review	
Trade-Offs	
Evaluation Scoring	23
Proposal Price Summary	23
Price Analysis	
Recommendation for Contract Award	25
EXHIBITS	
EXHIBITS Exhibit A – UTDC Vehicle Refurbishment Project Schedule	
	26
Exhibit A – UTDC Vehicle Refurbishment Project Schedule	26 26
Exhibit A – UTDC Vehicle Refurbishment Project Schedule Exhibit B – Planholders List	26 26 26
Exhibit A – UTDC Vehicle Refurbishment Project Schedule Exhibit B – Planholders List Exhibit C-1 – Contract Negotiations Letters to Alstom dated October 10, 2011	
Exhibit A – UTDC Vehicle Refurbishment Project Schedule Exhibit B – Planholders List Exhibit C-1 – Contract Negotiations Letters to Alstom dated October 10, 2011 Exhibit C-2 – Contract Negotiations Letter to Siemens dated October 10, 2011	26 26 26 26 26 26
Exhibit A – UTDC Vehicle Refurbishment Project Schedule Exhibit B – Planholders List Exhibit C-1 – Contract Negotiations Letters to Alstom dated October 10, 2011 Exhibit C-2 – Contract Negotiations Letter to Siemens dated October 10, 2011 Exhibit D-1 – Alstom Negotiation Meeting Sign-in-sheets	26 26 26 26 26 26 26 26
Exhibit A – UTDC Vehicle Refurbishment Project Schedule Exhibit B – Planholders List Exhibit C-1 – Contract Negotiations Letters to Alstom dated October 10, 2011 Exhibit C-2 – Contract Negotiations Letter to Siemens dated October 10, 2011 Exhibit D-1 – Alstom Negotiation Meeting Sign-in-sheets Exhibit D-2 – Siemens Negotiation Meeting Sign-in-sheets	26 26 26 26 26 26 26 26 26
Exhibit A – UTDC Vehicle Refurbishment Project Schedule Exhibit B – Planholders List Exhibit C-1 – Contract Negotiations Letters to Alstom dated October 10, 2011 Exhibit C-2 – Contract Negotiations Letter to Siemens dated October 10, 2011 Exhibit D-1 – Alstom Negotiation Meeting Sign-in-sheets Exhibit D-2 – Siemens Negotiation Meeting Sign-in-sheets Exhibit E-1 – Alstom Final Agenda	26 26 26 26 26 26 26 26 26 26
Exhibit A – UTDC Vehicle Refurbishment Project Schedule Exhibit B – Planholders List Exhibit C-1 – Contract Negotiations Letters to Alstom dated October 10, 2011 Exhibit C-2 – Contract Negotiations Letter to Siemens dated October 10, 2011 Exhibit D-1 – Alstom Negotiation Meeting Sign-in-sheets Exhibit D-2 – Siemens Negotiation Meeting Sign-in-sheets Exhibit E-1 – Alstom Final Agenda Exhibit E-2 – Siemens Final Agenda	26 26 26 26 26 26 26 26 26 26 26
Exhibit A – UTDC Vehicle Refurbishment Project Schedule Exhibit B – Planholders List Exhibit C-1 – Contract Negotiations Letters to Alstom dated October 10, 2011 Exhibit C-2 – Contract Negotiations Letter to Siemens dated October 10, 2011 Exhibit D-1 – Alstom Negotiation Meeting Sign-in-sheets Exhibit D-2 – Siemens Negotiation Meeting Sign-in-sheets Exhibit E-1 – Alstom Final Agenda Exhibit E-2 – Siemens Final Agenda Exhibit F-1 – Summary of Negotiations with Alstom	26 26 26 26 26 26 26 26 26 26 26 26 26
 Exhibit A – UTDC Vehicle Refurbishment Project Schedule Exhibit B – Planholders List Exhibit C-1 – Contract Negotiations Letters to Alstom dated October 10, 2011 Exhibit C-2 – Contract Negotiations Letter to Siemens dated October 10, 2011 Exhibit D-1 – Alstom Negotiation Meeting Sign-in-sheets Exhibit D-2 – Siemens Negotiation Meeting Sign-in-sheets Exhibit E-1 – Alstom Final Agenda Exhibit E-2 – Siemens Final Agenda Exhibit F-1 – Summary of Negotiations with Alstom Exhibit F-2 – Summary of Negotiations with Siemens 	26 26 26 26 26 26 26 26 26 26 26 26 26
 Exhibit A – UTDC Vehicle Refurbishment Project Schedule Exhibit B – Planholders List Exhibit C-1 – Contract Negotiations Letters to Alstom dated October 10, 2011 Exhibit C-2 – Contract Negotiations Letter to Siemens dated October 10, 2011 Exhibit D-1 – Alstom Negotiation Meeting Sign-in-sheets Exhibit D-2 – Siemens Negotiation Meeting Sign-in-sheets Exhibit E-1 – Alstom Final Agenda Exhibit E-2 – Siemens Final Agenda Exhibit F-1 – Summary of Negotiations with Alstom Exhibit F-2 – Summary of Negotiations with Siemens Exhibit G-1 – Letter Request to Alstom for Final Offers 	26 26 26 26 26 26 26 26 26 26 26 26 26 2
 Exhibit A – UTDC Vehicle Refurbishment Project Schedule Exhibit B – Planholders List Exhibit C-1 – Contract Negotiations Letters to Alstom dated October 10, 2011 Exhibit C-2 – Contract Negotiations Letter to Siemens dated October 10, 2011 Exhibit D-1 – Alstom Negotiation Meeting Sign-in-sheets Exhibit D-2 – Siemens Negotiation Meeting Sign-in-sheets Exhibit E-1 – Alstom Final Agenda Exhibit E-2 – Siemens Final Agenda Exhibit F-1 – Summary of Negotiations with Alstom Exhibit F-2 – Summary of Negotiations with Siemens Exhibit G-1 – Letter Request to Alstom for Final Offers Exhibit G-2 – Letter Request to Siemens for Final Offers 	26 26 26 26 26 26 26 26 26 26 26 26 26 2
 Exhibit A – UTDC Vehicle Refurbishment Project Schedule. Exhibit B – Planholders List. Exhibit C-1 – Contract Negotiations Letters to Alstom dated October 10, 2011. Exhibit C-2 – Contract Negotiations Letter to Siemens dated October 10, 2011. Exhibit D-1 – Alstom Negotiation Meeting Sign-in-sheets. Exhibit D-2 – Siemens Negotiation Meeting Sign-in-sheets. Exhibit E-1 – Alstom Final Agenda Exhibit F-2 – Siemens Final Agenda Exhibit F-2 – Summary of Negotiations with Alstom. Exhibit F-2 – Summary of Negotiations with Siemens. Exhibit G-1 – Letter Request to Alstom for Final Offers. Exhibit G-2 – Letter Request to Siemens for Final Offers Exhibit H – Trade-offs for Final Selection 	26 26 26 26 26 26 26 26 26 26 26 26 26 2
 Exhibit A – UTDC Vehicle Refurbishment Project Schedule Exhibit B – Planholders List Exhibit C-1 – Contract Negotiations Letters to Alstom dated October 10, 2011 Exhibit C-2 – Contract Negotiation Letter to Siemens dated October 10, 2011 Exhibit D-1 – Alstom Negotiation Meeting Sign-in-sheets Exhibit D-2 – Siemens Negotiation Meeting Sign-in-sheets Exhibit E-1 – Alstom Final Agenda Exhibit E-2 – Siemens Final Agenda Exhibit F-1 – Summary of Negotiations with Alstom Exhibit F-2 – Summary of Negotiations with Siemens Exhibit G-1 – Letter Request to Alstom for Final Offers Exhibit G-2 – Letter Request to Siemens for Final Offers Exhibit H – Trade-offs for Final Selection Exhibit I – Evaluation Committee Comments 	26 26 26 26 26 26 26 26 26 26 26 26 26 2

UTDC LIGHT RAIL VEHICLE REFURBISHMENT PROJECT

Objectives of the Project

The Project will refurbish 21 Urban Transportation Development Corporation (UTDC) light rail vehicles (Vehicles) purchased from Santa Clara Valley Transportation Authority (VTA). These Vehicles will be used to support South Line Phase 2 (the Blue Line extension to Cosumnes River College), the Green Line (1.1 miles of new track and two new stations in downtown Sacramento), as well as for weekend service, and eventually limited stop service on the North East Corridor (Blue Line). These Vehicles will not be modified to operate in mixed consists with either of RT's other fleets (Siemens-Duewag and Construcciones y Auxiliar de Ferrocarriles, S.A. (CAF)); it is not cost effective to do so. These Vehicles will always operate in homogenous consists, and in a maximum of three-car consists (to fit within the platform length at light rail stops). The general objectives of this refurbishment program include the following items:

- 1. To ensure the continuation of useful service life of the vehicles (for the second half of the vehicles' design life).
- 2. To improve system and passenger safety
- 3. To improve vehicle reliability
- 4. To reduce maintenance costs
- 5. To reduce unscheduled repairs
- 6. To eliminate obsolete equipment
- 7. To improve passenger com fort and convenience
- 8. To improve interior and exterior appearance
- 9. To assist RT during the safety certification process as needed

The Contractor must assure these objectives are met in all aspects of its work.

Project Overview

In 2003, RT acquired 21 UTDC light rail Vehicles from VTA. Utah Transit Authority (UTA) procured the balance of VTA's fleet and completed its refurbishment in 2009. These Vehicles began operating in service for VTA in 1987. In 2004, RT gained funding to obtain the Vehicles and to procure equipment required for the Vehicles to meet RT's operating requirements. Several major subsystems such as the Train-to-Wayside equipment, E&H ramps, and radios were procured. RT approached its refurbishment project several ways over time.

The first approach involved two parts: first to solicit, using an RFP, a contractor to make all the modifications on a pilot Vehicle, and develop all the necessary schematics and rework instructions to modify the remaining fleet and then, second, solicit, using another RFP, a contractor to modify the remaining 20 Vehicles. A restriction was added to the RFP to preclude the first contractor from bidding on the second RFP because the contractor would have an unfair competitive advantage. RT received no proposals from the first RFP. RT staff sought industry feedback and determined that the prohibition clause was what stopped firms from bidding. Contractors stated they needed the entire modification project to make it cost-effective for them.

The second approach was to perform the entire work "in-house" using RT light rail Maintenance staff. RT would hire and train two technicians who would be dedicated full time to work on the UTDC Vehicles. Due to many changes in RT's working environment, such as reductions in force and the length of time it takes to train technicians, RT decided that a better approach was to seek outside services for both developing the Technical Specifications, and to perform the required modifications. During this time period, RT was actively applying for additional funding. The current and final approach was defined in 2009, when additional funding was obtained for this project. RT re-evaluated what modifications were needed, what systems had to be replaced with newer technology, and what systems were not currently on the Vehicles but needed to be added. RT met with UTA staff to analyze the changes and upgrades that they had made, and to understand the difficulties UTA encountered on its project. RT staff also analyzed any additional needs for today's light rail system environment.

The ARRA funding application for the refurbishment defined minimal changes to the Vehicles but with no new equipment. The application stated that 15 Vehicles would be refurbished with the funding. Due to changing needs to improve Vehicle reliability (lessons learned from UTA), RT sought additional funding through its Grants Department for Prop 1B funds.

Procurement Strategy for Vehicle Refurbishment and Supporting Activities

Summary from Issue Paper, dated March 14, 2011, accompanying Board Resolution No. 11-03-0038:

With RT's fiscal emergency and subsequent layoffs, it was determined that RT would have to contract out the resources required to complete this project. In April 2010, RT contracted with LTK Engineering, through a Work Order to the General Engineering Support Services contract, to perform a technical inspection of the UTDC fleet. In August, RT contracted again with LTK to create the detailed technical specifications for the refurbishment.

On February 23, 2009, the Board approved Resolution 09-02-0035 to delegate increased procurement authority to the General Manager/CEO, for projects funded in whole or in part by the ARRA of 2009, as necessary, to timely apply for and receive federal funding (a condition that has since been met). RT received approximately \$9.8M in ARRA funding for the UTDC refurbishment project and has spent a portion of the funds. A condition of the ARRA funding is that the funds are to be spent timely, without delay, otherwise RT risks having to return the funding and pay back what has already been spent. The funding period for the 2009 American Recovery and Reinvestment Act of 2009 is from February 17, 2009 until September 30th, 2010. An ARRA audit in October 2010 reviewed the status of our project. RT, currently has staff dedicated to the project, has started to procure material, and developed a detailed project plan. RT has been able to show the Auditor that we are actively moving forward with the project. With this information, RT is currently meeting the requirements of the funding. However, Congress has been debating whether all un-obligated funds should be eliminated from the stimulus budget. In order to move forward into the contracting phase and to completely encumber the funding provided, we are asking the Board to streamline and accelerate the Procurem ent processes. Staff is requesting that the Board delegate certain authority to the General Manager/CEO, specific to the UTDC refurbishment project. The General Manager/CEO would be delegated the following authority:

- 1. To release all solicitations of bids and proposals;
- 2. To award and execute contracts up to \$250,000;
- 3. To award and execute sole source contracts up to \$250,000;
- 4. To award and execute all work orders up to \$250,000;
- 5. To approve and execute any single change order up to \$250,000; and
- 6. To approve and execute am endments up to \$250,000.

Under this limited authority, any contract in excess of \$250,000 will be presented to the Board for approval.

Upon authorization from the RT Board of Directors, and subject to the review and approval by the Chief Legal Counsel or his/her designee, the General Manager/CEO would be authorized to execute

all work orders up to \$250,000 on the existing support services contracts: General Construction Management Support Services, and General Engineering Support Services.

Upon authorization from the RT Board of Directors, and subject to the review and approval by the Chief Legal Counsel or his/her designee, the General Manager/CEO would be authorized to approve all solicitations for bids and proposals for the UTDC project. A list of UTDC project procurements, known at this writing, is included as Exhibit A to the Resolution. The list of procurements in Exhibit A may change based on any number of changes in the requirements. During the initial teardown and assessment process, Staff discovered significant variables in the conditions of vehicle components. Each Invitation to Bid and Request for Proposal will be customized, as such, to accommodate the needed work.

Most of the UTDC vehicle components will be procured using the competitive low bid solicitation method; however, a negotiated procurement is the intended procurement strategy for the major UTDC LRV refurbishment contract. Under this method, award of the contract will be to the firm that scores the highest on evaluation criteria that will include price as well as technical and manufacturing capability, rather than low bid. Public Contract Code Section 20323 allows for the use of a competitive negotiation process for the acquisition of specialized rail transit equipment. A competitive negotiation is allowed upon a finding by a 2/3rds vote of RT's Board of Directors, that it is in RT's best interest to consider and that in these circumstances it is in the public interest to consider the broadest possible range of competing products and materials available; fitness of purpose, manufacturer's warranty, performance reliability, standardization, life-cycle costs, delivery timetables, support logistics, and other similar factors in addition to price in the award of this contract.

Project Management Team

Organizational and Technical Team

At the project level, in addition to the Project Director and Project Manager, the management team includes the following leads who work directly with the Project Manager in managing and providing day-to-day functional support throughout the Project's implementation phases from inception to revenue operations. The following positions are identified with administrative titles in parenthesis:

- **General Manager/CEO** The RT General Manager/CEO reports directly to the Board of Directors. The General Manager/CEO functions as the Contracting Officer for the Project and is responsible for ensuring that contracts and the contracting processes are administered in accordance with established guidelines and ordinances.
- Chief Operating Officer The Chief Operating Officer (COO) reports directly to the General Manager/CEO. The COO is responsible for all aspects of bus and light rail operations, bus maintenance, and services including Police Security and Community Bus Services. The COO provides administrative support to the Director of Light Rail to ensure all aspects of the project meet established budgets, schedules, design criteria, and quality levels, The COO provides project status to the General Manager/CEO.
- **Project Director (Director of Light Rail)** The Director ("Project Director") of Light Rail reports directly to the Chief Operating Officer. The Project Director provides administrative support and oversight to the Project Manager's activities to ensure that project design and Vehicle Refurbishment are coordinated and managed to meet established budgets, schedules, design criteria, and quality levels. The Project Director is also responsible for ensuring that project QA reviews and audits are performed. The Project Director will review staffing requirements on an ongoing basis to assure that the Project remains effectively and adequately staffed.

- **Project Manager (RT Superintendent, Light Rail Maintenance Operation)** The Project Manager is fully responsible for management of all activities needed for successful completion of the project including Technical Specification Development and Refurbishment Design to Vehicle System Integration, and other project support activities. The Project Manager also coordinates other project support activities with functional department heads.
- Procurement Project Lead (RT Superintendent, Materials Management) The Procurement Project Lead ("Project Lead") supports the Project Manager and is responsible for management of activities needed for successful completion of the project. The Project Lead's responsibilities include addressing day-to-day critical issues and proposing solutions for these issues while coordinating other project support activities with division heads. The Project Lead works directly with RT Contracts staff and keeps the Project Manager informed of open issues. The Project Lead shares the responsibility for overall project performance, and is the alternate point-of-contact for matters pertaining to FTA and project management issues.

The Project Lead also has the primary responsibility to lead acquisition activities for the Project. by managing the Contract Management post award including, but not limited to the following: Review and Monitor implementation. Review and Verification of Application and Certificate for payment. Review and Monitor Contract Change Order procedure, approvals and processing. Review and Monitor Contract Claims and Claims Issues. Review and Verify Contract Close-out and Final Acceptance.

The Project Lead will work directly with RT Legal and all interfacing Departments during the procurement phase and will keep the Project Manager informed of open issues.

- **On-Site Technical Lead (RT Light Rail Supervisor)** The On-Site Technical Lead supports the Project Manager and the Procurement Project Lead and has the responsibility to manage the vehicle refurbishment by coordinating activities between the Contractor and the light rail Maintenance and Operations staf f.
- Quality Assurance Manager (RT Quality Assurance Administrator) The Quality Assurance Manager: promotes the development of quality management systems consistent with contemporary FTA practices to effect successful implementation; ensures that RT is in compliance with the FTA QA/QC guidelines; develops QA/QC policies, procedures, processes, specifications, practices and guidelines; conducts audits; performs oversight; reviews and monitors procedures and processes; and checks RT staff, consultants and contractors for compliance
- **Director of Design (Director, Civil and Track Design)** The Director of Design works directly with the Project Manager, and is responsible for the interface with design consultants and contractors on matters such as refurbishment, civil, electrical, mechanical subcontractors through refurbishment phases.
- Lead Engineer (Senior Systems Engineer) The Senior Systems Engineer oversees RT's systems engineering staff and external Consulting staff to complete the design requirements for the Project in their respective specialized discipline area.
- **Technical Specifications Development (Consultant Team)** RT enlisted the services of LTK consultant team for its expertise in Light Rail Vehicle manufacturing and refurbishment. The technical consultant provides RT with a Lead Project Engineer and other specialists as needed.

Other Project Support

- **Chief Legal Counsel** The Chief Legal Counsel report directly to RT's Board of Directors and advises the General Manager/CEO and all other staff on all legal matters.
- **Grants Manager** The Grants Manager is responsible for administering local, state and federal funding programs. Supporting the project through the Director of Office of Management and Budget, the Grants Manager's responsibilities include: preparation and coordination of grant applications and amendments; and coordinating efforts to satisfy state and federal project reporting requirements which include the preparation of the FTA quarterly reports.
- **Procurement Analyst (Senior Procurement Analyst)** The Senior Procurement Analyst reports directly to the Manager, Contracts and DBE. This position supports the Procurement Project Lead and has the responsibility for management of activities required for successful completion of the project.
- **Manager, Contracts and DBE** The Manager Contracts/DBE supports the Procurement Team throughout all project-related procurements as reviewer and advisor to the Senior Procurement Analyst and the Procurement Project Lead.

Project Schedule

The following schedule is provided as of August 2011 and outlines major activities for the remainder of the Project. This schedule is included as Exhibit A - UTDC Vehicle Refurbishment Project (Not Included).

Technical Specification Development for Vehicle Refurbishment and Overhauls

RT contracted with LTK to assist with the development of the technical specifications for the Vehicles. LTK and the RT Project team, consisting of Laura Espinoza, Reggie Silva, Colleen Elder, Craig Norman, and Eric Oparko, traveled to Utah to interview UTA Maintenance and Contract Project personnel who managed the refurbishment of UTA's 29 UTDC Vehicles. The Project Team conducted research to learn what difficulties the Maintenance project team experienced, how their upgrades were performed, and changes and/or other upgrades that UTA should have made. Procurement reviewed the RFP, Contract and all the Change Orders. From these "lessons learned," RT intends to avoid several problem issues that UTA encountered.

- Procurement found several problem issues with UTA's procurement strategy; namely, that using one contractor for the entire refurbishment was perhaps not the best approach. UTA experienced several slow-downs from sub-systems where issues were resolved between subcontractor and UTA but they could not act until a change order was processed through the prime contractor. *RT decided to procure separate contracts for some of its overhauls to save time and additional mark-up.*
- By reviewing all the Contract Change Orders, RT was able to identify and include work items that were not addressed by UTA. *RT was able to incorporate the additional work into RT Technical Specifications.*
- RT Maintenance found that UTA did not include some work during their refurbishment that later resulted in issues during operations. UTA wanted to replace the HVAC system but discovered that there was no market for it. This resulted in a change order for their

contractor to rebuild the HVAC units. *RT performed an Industry review with the major HVAC suppliers in 2011, before starting the procurement process, to verify that the units could not be replaced with a new HVAC unit (RT's original preference); therefore, RT modified the specifications accordingly to have the refurbishment contractor rebuild them.*

In July 2010, after RT and LTK completed their Peer Review of the UTA's UTDC refurbishment, LTK's Team consisting of Werner Uttinger, Project Lead and Sabro Takeda, Project Engineer, and RT worked together to develop the technical specifications. LTK performed a partial teardown of the major components, inspected the UTDC vehicles, and provided a report of the items to be addressed during the Refurbishment. LTK then developed a set of technical specifications for the Vehicles and the overhauls to support the Refurbishment project. The Vehicle technical specifications were completed and reviewed by RT Legal in June 2011.

Engineering Estimate

LTK developed a matrix list of requirements in August 2010. The scope included the Vehicle refurbishment, major component overhauls and long lead time items being managed directly by RT. RT, together with LTK, performed an internal review of requirements. Each line item listed the Base Estimate, (minimum work), and the High-End Estimate for each activity. RT's Technical Review Team reviewed the matrix and made a decision as to which option (Base or High-End) was preferred by RT. The Matrix became the outline for the Technical Specifications. RT's preferred options estimate was used to develop the WBS funding baseline budget.

RT used LTK's Engineering Estimate to budget the current funding, which resulted in the conclusion that the awarded ARRA funding would fund completion of the first seven vehicles. RT notified the FTA Project Management Oversight (PMO), Gannett Flemming, of the fact that the current budget estimate would provide funding for only 7 Vehicles. RT requested that LTK expand its Engineering Estimate to add items that were not directly part of the refurbishment activities, such as Contractor's Overhead Costs, Training, and Manuals. In October 2011, LTK submitted the complete Engineering Estimate to RT. RT submitted a request to the FTA to change the quantity of Vehicles from 15 to 7 for the AARA funding Grant. Below is the current funding plan.

UTDC Vehicle Refurbishment Request for Proposal Project no. 2010043

Fiscal Impact

Budgeted:	Yes		
Budget Source:	Capi	tal	
Funding Source:	Fede	eral, State*	
Cost Cntr/GL Acct(s) or Capital Project #:		5: R085 910800	
Total Budget:	\$ 19,67	76,099.70	
Funding Breakdown: American Recove Reinvestment Act (ARRA) c Awarded P Future P Future P	f 2009: rop 1B: rop 1B:	\$5,013,000 \$1,618,869 \$4,859,963 \$9,228,055 \$20,719,887	*Pending – awaiting bond sale and allocation to this project *Pending – requested allocation June 2011

Procurement Team for RFP 2010043 UTDC Vehicle Refurbishment

The Procurement Review Team and Contract Management for the Request for Proposal Project No. 2010043 UTDC Vehicle Refurbishment are made up of the following RT personnel:

Procurement:

- Colleen Elder, Superintendent, Materials Management
- Sue Robison, Senior Procurement Analyst, Contracts
- Fernando Barcena, Manager, Contracts and DBE

The Chief of Facilities and Business Support Services and the General Manager/CEO approved the Evaluation Committee.

The Proposal Evaluation Committee:

- Mark Lonergan, Chief Operating Officer elected to not evaluate
- Vern Barnhart, Director, Bus Maintenance (As of January 1, 2012, promoted to Director, Light Rail)
- Laura Espinoza, Maintenance Superintendent Light Rail
- Reggie Silva, Maintenance Supervisor
- Darryl Abansado, Director, Civil and Track Design
- Craig Norman, Senior Systems Engineer
- Eric Oparko, Quality Assurance Administrator
- Kerry Kopp, Maintenance Trainer Light Rail

Legal Counsel:

Melissa Noble, Attorney III

Procurement Process

A "Best Value" negotiated procurement was determined to be the appropriate solic itation method.

FTA Circular Reference

FTA Circular 4220.1F

"<u>Best Value</u> describes a competitive, negotiated procurement process in which the recipient reserves the right to select the most advantageous offer by evaluating and comparing factors in addition to cost or price such that a recipient may acquire technical superiority even if it must pay a premium price. A "premium" is the difference between the price of the lowest priced proposal and the one that the recipient believes offers the best value. The term "best value" also means the expected outcome of an acquisition that, in the recipient's estimation, provides the greatest overall benefit in response to its material requirements. To achieve best value in the context of acquisitions for public transportation purposes, the evaluation factors for a specific procurement should reflect the subject matter and the elements that are most important to the recipient. While FTA does not mandate any specific evaluation factors, the recipient must disclose those factors in its solicitation. Evaluation factors may include, but are not limited to, technical design, technical approach, length of delivery schedules, quality of proposed personnel, past performance, and management plan. This definition is intended neither to limit nor to dictate qualitative measures a recipient may employ, except that they must support the purposes of the Federal public transportation program."

Request for Proposal

The procurement document was created by Colleen Elder, Sue Robison, and Laura Espinoza, reviewed by Fernando Barcena, and finally reviewed and approved by Melissa Noble Attorney III, Legal Department.

Excerpts From RFP 2010043 Document

Instructions to the Bidder

A pre-proposal conference and site visit will be held on Wednesday, June 1, 2011, at 9:30 a.m. at RT's Metro Heavy Rail Facility (MHRF) conference room at 2760 Academy Way, Sacramento, CA 95815. The purpose of the meeting is to review the scope of work to be performed, the DBE requirements, and to respond to questions regarding the RFP. After the meeting, there will be a site visit to provide an opportunity for Proposers to visually inspect two UTDC Vehicles located in the MHRF maintenance shop and to review documents that will be provided to the Contractor under the Contract. Please note that entrance to the MHRF building is restricted and no one may enter without an RT representative.

A second site visit is scheduled to provide a reasonable amount of time for prospective Proposers and potential subcontractors to conduct an inspection of all UTDC Vehicles. The Vehicles will be staged in both the indoor MHRF maintenance shop, and outdoors in the active Metro rail yard. All attendees must sign a waiver and general release to access RT's property for the site visit. In addition, all attendees, employees and agents of the Proposer and its proposed subcontractors and suppliers must sign-in upon arrival on, and must sign-out upon departing from, RT's property as required by RT.

RT will summarize all questions and responses given at the pre-proposal conference, and all other questions received, according to the Procurement Schedule found in Section I, Introduction, C. All questions should be submitted in writing to RT using the RT-provided MS Excel spreadsheet found on RT's ftp portal site. Instructions for accessing the Excel spreadsheet are found in Section I, Procurement Review of UTDC Light Rail Vehicle Refurbishment RFP No. 2010043 Page 8 of 26 4/6/2012 2010043.Procurement Review.UTDC LRV.Refurb For IP.doc

Introduction, D. Obtaining Electronic UTDC RFP Documents. Proposers should email questions to the contact persons listed on the prior page of this RFP. Proposer must reference the RFP Technical Specification Section number, and subsection number, if applicable. RT will summarize all questions and responses and will mail a hard copy to all Proposers that received a hard copy of the RFP, according to the Procurement Schedule found in Section I, Introduction, C. This summary is provided for reference only, will not be binding on RT, and will not become part of the Contract. Any changes to the RFP as a result of the questions will be made through an addendum to the RFP.

Evaluation Procedures

The overall evaluation process will be performed by the Proposal Evaluation Committee ("Committee"). The Committee will be made up of technically and professionally qualified personnel from RT and other technical consultants. The objective of the evaluation is to determine which Proposals are responsive and technically acceptable.

All Proposals will undergo a preliminary evaluation by the Committee to determine the following:

- a) That the proposed work meets all functional requirements of the specifications, and is fully compliant with, and responsive to, the RFP. A Proposal that does not comply with all of the RFP requirements will be deemed non-responsive, subject to RT's right to waive minor irregularities.
- b) That the Proposer and its proposed subcontractors have sufficient personnel, facilities, and experience to successfully complete the work within the required schedule.

After the preliminary evaluation of the written proposals, the Sealed price proposals will be opened and the final scoring will be determined in accordance with the Evaluation Criteria.

After evaluation is complete and upon determination of the final ranking, RT may commence contract negotiations with the Proposers within the competitive range as set out in Section II.D.7, for the purpose of finalizing a recommendation of award to the RT Board.

Evaluation Criteria

Evaluation Criteria for evaluation of responsive Proposals are listed on the following page. In each case, the number of points (out of a total of 100) assigned to each major section is given in boldface. Following each boldface heading, the point distribution for that section is broken down in greater detail. Where "Compliant/Non-Compliant" is given, no score is awarded, but the material submitted is checked for compliance with the RFP requirements. If any part of a Proposal is deemed non-compliant, the Proposal will be deemed non-responsive.

The Proposal Evaluation Form included in the RFP is shown on the following pages.

Proposal Evaluation Form

RFP No.: 2010043

PROPOSAL EVALUATION FORM

Contractor's Name:

		EVALUATION CRITERIA	Maximum possible score	SCORE
Letter o	fTra	ansmittal	Compliant/Non- Compliant	
Part 1 -	The	Firm; Major Subsystem Subcontractors:	10 points	
	A.	The Firm Experience Financial Capacity	5 points	
	В.	Subsystem Suppliers Supplier Experience Manufacturing Capability	5 points	
Part 2 -	Refe	erenced Projects:	3 points	
Part 3 -	Proj	ect Staffing and Experience:	12 points	
[A.	Staffing Plan and Resumes	6 points	
	В.	Project Manager	6 points	
Part 4 -	Tec	hnical Submittal:	35 points	···
	Α.	Approach to Accomplish the Work	9 points	
	В.	Quality Control	5 points	
	C.	Compliance with Technical Specifications	8 points	· · · · · · · · · · · · · · · · · · ·
	D.	Relevant Design and Manufacturing of Subsystems - New Subassembly Components:		* * * *
		Auxiliary Power System	3 points	
		Communications System	3 points	
		Event Recorder System	2 points	
	E.	Project Schedule	5 points	
Sub- TOTAL		QUALIFICATIONS AND TECHNICAL SCORE	60 points	

	EVALUATION CRITERIA	Maximum possible score	SCORE
Part 5 -	- Price Proposal:		
Fo	orm V-1 - Proposal Price (separately sealed envelope) Proposer's Score = <u>Lowest Total Price</u> X 40 Proposer's Total Price (including RT-determined costs for off-site work)	40 points	
Sub- Total	PRICE SCORE	40 points	
Fo	oposal Security (separately sealed envelope) orm V-2A – Bid Bond, or orm V-2B - Irrevocable Letter of Credit	Compliant/ Non-Compliant	
Fo	orm V-3 - Receipt of Addenda	Compliant/ Non-Compliant	
Fc	orm V-4 - Interests and Gratuities Certification	Compliant/ Non-Compliant	
Fc	orm V-5 - Campaign Contribution Disclos ure Form	Compliant/ Non-Compliant	
Fo	orm V-6 - Certification Regarding Organiz ational Conflicts	Compliant/ Non-Compliant	
Fc	orm V-7 - Certification Regarding RT's Form of Agreement	Compliant/ Non-Compliant	
Fc	orm V-8 - List of Principals and Officers	Compliant/ Non-Compliant	
	orm V-9 - FTA Certification Regarding Debar ment, uspension, Ineligibility and Voluntary Exclusion	Compliant/ Non-Compliant	
	orm V-10 - FTA Certification of Restrictions on Lobbying	Compliant/ Non-Compliant	
	orm V-11 - FTA Certification Regarding Clean Air A ct and ederal Water Pollution Control Act	Compliant/ Non-Compliant	
	orm V-12 - FTA Buy America Certificate	Compliant/ Non-Compliant	
	orm V-13 - Certificate of Compliance With Drug and cohol Testing and Drug-Free Workplace Act	Compliant/ Non-Compliant	
OTAL	TOTAL EVALUATION SCORE	100 points	

Scoring Range

Excellent	Good	Average	Below Average	Unsatisfactory
10	7	5	3	0

Rating Performed By:

(Printed Name)

(Date)

(Signature)

Procurement Review of UTDC Light Rail Vehicle Refurbishment RFP No. 2010043 4/6/2012 2010043.Procurement Review.UTDC LRV.Refurb For IP.doc

Competitive Negotiations

RT reserves the right to enter into contract negotiations to negotiate items such as the technical specifications, price, project schedule, etc., with all Proposers within the competitive range. During the negotiations, the Proposers within the competitive range may be asked to submit a best and final proposal and cost. RT reserves the right to make award based on the original proposal without further negotiations.

Award of Contract

RT intends to award a Contract to the Proposer offering the proposal most advantageous to RT. Award of contract may or may not be made to the lowest priced Proposal. Since technical acceptability is considered vital to a successful project, RT reserves the right to award a contract on other than the lowest-price basis if a higher-priced Proposal is determined to be more advantageous to RT.

After final evaluation and scoring of all Proposals, and completion of a price and/or cost analysis, if required, RT's Proposal Evaluation Committee intends to recommend to the RT Board that the UTDC Light Rail Vehicle Refurbishment Contract be awarded to the Proposer that complies with this RFP and whose Proposal is the most advantageous to RT.

RFP 2010043 Summary of Procurement Activities

Proposal and Negotiation History Release of the RFP

During the review and completion of the procurement documents, an industry search was made to develop the Planholders list. For vendors, RT used its past procurement (Light Rail Vehicle Procurement in 1999) and researched: other agencies' refurbishment RFPs; the internet; APTA's web-site; and LTK recommendations. The RFP was released on May 19, 2011 with the final bid due date of September 8, 2011.

Planholders

RT released the RFP to 42 firms (See Exhibit B Not Included). The solicitation was advertised in publications of general circulation in accordance with RT SOP GM-SOP-97-009; posted on RT's website under Contracting Opportunities; and advertised in Transit Intelligence for maximum outreach.

Pre-Proposal Meeting

The Planholders were invited to the Pre-Proposal meeting on June 1, 2011 at RT's Metro Heavy Repair Facility, with a short inspection of the Vehicles in the shop. The purpose of the meeting was to review the scope of work to be performed, the DBE requirements, and to respond to questions regarding the RFP. After the meeting, a site visit was held to provide an opportunity for Proposers to visually inspect two UTDC Vehicles located in the MHRF maintenance shop and to review documents that will be provided to the Contractor under the Contract.

Pre-Bid Inspections (site visits)

Two additional site visits were scheduled to provide a reasonable amount of time for the proposer's technical and engineering staff and potential subcontractors to conduct a thorough inspection of all UTDC Vehicles. The equipment that was partially torn down for the LTK evaluation and all 21 Vehicles were available for inspection. Attendance at the 2 site visits

included both firms that submitted Proposals (28 representatives from Siemens and 7 from Alstom) and a few sub-suppliers.

Addendums

Three Addendums were issued on: June 29, 2011, August 2, 2011, and August 18, 2011.

Proposal Receipt

On September 8, 2011, responsive proposals were received from: Alstom Transportation, Inc. and Siemens Industry, Inc.

Proposal Review

Proposals were distributed to each Evaluation Committee member on September 8th, with instructions to bring their evaluation score sheets and comments to the 10:00 a.m. meeting on Friday, September 16, 2011 in the Engineering Conference Room. Each evaluator read and scored the proposals independently.

Written Evaluation

A Proposal Evaluation Committee, Pre-Review of Proposals Meeting was held on September16, 2011. A meeting agenda contained the following agenda items:

Meeting Objective - To kick-off the proposal evaluation process

Evaluators' Role -

- o To determine that the proposal meets the requirements set forth in the RFP.
- Evaluators to document the strengths and weaknesses of the proposal.
- It is not appropriate for the evaluator to try to redesign or make changes to any aspect of the proposal during the evaluation process.

Proposal Requirements – See earlier reference to FTA Circular 4220.1F

Confidentiality Agreement - each Evaluator signed a confidentiality agreement.

Schedule:

- o Friday, September 16, 2011 Evaluation Committee proposal review meeting
- Thursday, September 29, 2011 Oral Presentations (if needed)

Written Evaluation Scoring and Comments

There were stark differences between how the 2 firms responded to the Technical Specifications. A representative sample of each Proposer's response is found below. The sample was taken directly from the RFP Technical Specifications and from each proposal.

The selection is Section 2.2.5 Roof Shrouds:

2.2.5 Roof Shrouds "Contractor must inspect roof shrouds, repair any defects found and replace all mounting hardware with stainless steel hardware."

Siemens' response to Section 2.2.5:

"Roof shrouds will be removed from the vehicle primarily to facilitate the removal of roof mounted equipment and to prevent damage to both. When dismounted from the vehicle, the shrouds will be inspected for: corrosion; bent or dented areas; failed welds; and damaged paint coating. Repairs will be made as applicable to remove and mitigate corrosion, straighten outer surfaces to within +/- 1 mm (+/-0.039 in) of original surface contour, repair broken welds and repair and replace damaged paint per Siemens' procedures. All roof shroud hardware used during reinstall ation will be stainless steel."

This was a typical response from Siemens' proposal, well thought out and thorough, which demonstrated that Siemens has good under standing of the amount of work required, and for RT to evaluate Siemens' technical abilities.

Alstom's response to Section 2.2.5:

"Alstom shall be compliant with the requirements of this Section."

This was a typical response from Alstom's proposal to the majority of the items in the Technical Specifications. Alstom did not demonstrate its level of understanding and a bility to perform the work. Consequently, the Evaluation Committee scored the more-detailed proposal (Siemens) higher.

Scoring based on the Written Proposal Evaluations:

Evaluation scores and comments were turned over to Procurement staff to compile the scores. Sealed price proposals were opened, and the scoring results were:

Name	Total Score (out of 700 points)	Average Weighted Score
Alstom	554	79
Siemens	577	82

Determination of Competitive Range

Staff determined that both firms were in the competitive range.

• On October 10, 2011, a letter was sent to both firms, including a tentative agenda, and attached a list of items for discussion. Most of the items on the list needed clarification and/or additional information. Each firm's letter was specific to issues that needed to be discussed with that firm. See Exhibit C-1 to Alstom and C-2 to Siemens (Not Included).

• For Alstom, its repeated statements that "Alstom shall be compliant with the requirements of this section" made it difficult to determine whether or not RT's specifications had been fully understood. RT requested that Alstom make a presentation to explain how Alstom would comply with the Technical Specifications. RT requested that Alstom be prepared to explain why there was no pricing for each Item 1 for Tables B-2, B-3, B-4, and B6.

For Siemens, RT requested Siemens be prepared to provide the elements that went into the pricing for each Item 1 for Tables B-2, B-3, B-4, and B6.

Negotiations

The Evaluation Committee decided it would be unnecessary to hold oral presentations and that time would be better spent on entering dir ectly into face-to-face negotiations with both firms.

Negotiations meetings were led by the Materials Management Superintendent. The sign-in sheets are included as Exhibit D-1 for Alstom's meeting and D-2 for Siemens meeting (Not Included). The format of the meeting followed the agenda's that were furnished to each firm prior to the meeting. The summary of discussion items were developed by RT from the Evaluation Committee member's questions and comments, and from each Proposers lists of Major Risks, Cost Savings Suggestions and Contract Exceptions.

During negotiations, the Manager, Contracts and DBE summarized the following to both firms: Negotiations would be conducted with all proposers within the competitive range. Negotiations will result in revisions requested of proposers, with the intent to correct deficiencies and shortcomings in the proposal/offer and with the intent to improve the proposal/offer. Negotiations with each proposer within the competitive range will be unique as to the specifics in each proposer's offer. There may be iterations of revisions until proposer has made its best offer on each negotiating point. RT will not issue a BAFO document. When the proposer has made its best and final offer, RT will not seek further revisions to proposer's offer and will conclude negotiations. After negotiations have been closed and if there remain multiple proposers within the form of a Final Offer. Once Final Offers have been received, RT will determine which of the multiple final offers is the most advantageous offer, based on the criteria set out in the RFP. After the proposer is selected that is determined by the Evaluation Committee to have made the offer most advantageous to RT, RT staff will recommend to the RT Board to award a contract to the successful proposer.

<u>Alstom</u>

Contract negotiations meetings began with Alstom on October 27, 2011 with follow-up correspondence back and forth to negotiate the Technical Specifications, price, and terms and conditions.

Alstom's approach to negotiations included little technical content; instead Alstom proposed several maintenance-related services to RT, for example: Vibration Technology Service and Traction Motor Based Maintenance and Overhaul, Advanced Winding Analyzer, and Train Line Service (TLS).

Since Alstom's proposal lacked detail, RT found it difficult to discuss details its proposal. RT brought up the fact that Alstom's common statement of "Alstom shall be compliant" left little to discuss. Alstom provided additional information to RT at the meeting in response to RT's request for more details; however, the document provided by Alstom added very little information. The document consisted of an Excel spreadsheet with each Technical Specification section listed, followed by several cells titled as "Statement of Compliance," consisting of "Addendum - Fully Compliant -Comply w/ comment - Do not comply - Out of scope, and For info only," and using an "x" to identify the category that best fit. The last column heading, "TLS Eng Comment" was comprised of brief comments such as "Understood, and No further comment."

During the discussions, the topic of staffing for the project was brought up by RT. Alstom responded that for many positions, included the critical position of QA/QC, they "will hire staff as needed" from the Sacramento region.

Another area of concern identified in Alstom's proposal price forms was that Alstom did not include any cost for the top level support for each Item 1 in Tables B-2, B-3, B-4, and B6. Alstom responded that the pricing was included elsewhere. RT concluded that the costs must be in the engineering costs found in Table A or that Alstom did not anticipate that each Vehicle is different and will require some custom Engineering.

RT asked Alstom what tooling and other equipment they had to perform the work and Alstom's response was they would buy everything they needed.

During the discussions, Alstom explained that TLS support would be transferred to its Naperville, Illinois location, not its west coast Mare Island facility located just hours away in the Bay Area. They explained to RT that TLS will give RT a high level of support after project completion. The Alstom Negotiations Team was unaware that RT has Alstom propulsion equipment on its CAF fleet of LRVs and that currently 5 vehicles were out of service due to equipment failures. Once they were told, Alstom immediately made phone calls and offered meetings to resolve on-going issues on the CAF vehicles. RT's experience with TLS has not been favorable since the on-site warranty period was complete in approximately 2006.

Alstom had 29 questions/items to discuss and discussions concluded after its November 4, 2011 submittal. The Summary of Contract Negotiations with Alstom can be found as Exhibit E–1 (Not Included).

• <u>Siemens</u>

Contract negotiations meetings began with Siemens on October 28, 2011 with several weeks of follow-up correspondence back and forth to negotiate the Technical Specifications, price, and terms and conditions.

Siemens' approach to negotiations was technically well thought out and encompassed virtually all aspects (major/minor) of the project and process to accomplish them. Some of the topics discussed in detail included: shop space and logistics, removal of the trucks for overhaul at its French Road location, painting and associated permits for painting in the shop, slewing rings, and many other topics related to the Technical Specifications.

Siemens addressed the request to provide the elements that went into the pricing for each Item 1 for Tables B-2, B-3, B-4, and B6 (as requested in the letter of invitation to enter into negotiations) by explaining that Engineering support will be needed after teardown of each vehicle and also that its support overhead costs were rolled up into the top level. RT considered this to be appropriate.

Siemens committed to providing experienced staffing from their Sacramento facility and put on contract as a technical advisor consultant the former Operations Manager (from

VTA) for the original UTDC acquisition. Siemens will provide warranty and after market support from its Sacramento facility.

Siemens had over 90 questions/items to discuss and discussions concluded in early January 2012 Exhibit E-2 (Not Included). The Summary of Contract Negotiations with Siemens can be found as Exhibit F-1 for Alstom and F-2 for Siemens (Not Included).

Request for Final Offer (Pricing and Updates to Proposal)

Proposers remaining in the competitive range were asked to submit a final revised technical proposal and final revised price proposal. Final Offers were requested from both Alstom and Siemens on January 31, 2012 with a due date of Wednesday, February 8, 2012. Each letter addressed specific issues to be taken into consideration for the firms Final Offer (See Exhibit F-1 for Alstom and F-2 for Siemens - Not Included).

Final Review

Trade-Offs

The Evaluation Committee discussed the Final Offers and trade-offs for each proposal. The Committee agreed that Siemens submitted the technically superior proposal and has superior project management and support staff. Siemens's core business is light rail (and preferred by the Committee) compared to Alstom's heavy and commuter rail experience with very little light rail experience. The level of detail in Siemens proposal and during negotiations is superior and as a result, presents less risk to RT.

RT did not favor Alstom's plans to hire most of its workers locally after contract award, given that the employees might not have any light rail industry experience and would be disbanded after the project ends. Also, after project completion, Alstom proposes to transfer all support for the vehicles to Train Life Services (TLS) in Illinois. RT's experience with TLS is below standard and has caused CAF vehicles (with Alstom propulsion equipment) to be out of service. Warranty and aftermarket repair work has taken at times up to a year for repaired parts to be returned to RT. Siemens will provide warranty and after market support from its Sacramento facility.

As far as cost allocation, no heavy up-front costs were included with Siemen's proposal. RT has committed to completing 7 Vehicles with the ARRA funding. With Alstom's proposed up-front costs of 20% or \$3,000,000, only 3 of the 7 Vehicles would be completed with the current available funding.

A summary of trade-offs between Alstom and Siemens was developed by using the RFP Technical Evaluation Form. See following pages.

Evaluation Criteria		Trade Offs	Offs	RT Position
	Points	Alstom	Siemens	
Part 1 - The Firm; Major Subsystem Subcontractors:	10			
The Firm	ى	Will hire most of workers locally, probably without any experience in the rail industry, after completion, transfer all support for the vehicles to TLS in III.	Will bring experienced LR worker from the Sacramento Facility. All of the aftermarket support, after completion, will remain at the same Sacramento facility.	Having the Contractor based locally allows them to be more flexible and better able to handle unplanned issues.
Experience	1	Alstom's proposal provided only Commuter and Heavy Rail projects as examples.	All examples provided were of Light Rail overhauls and refurbishment projects.	The risk to RT is higher with Alstom since they have no LRV experience multiplied by their proposal being vague in most areas.
		RT's experience with TLS is below standard since 2007 and has caused CAF vehicles (with Alstom propulsion equipment) to be out of service. Warranty and aftermarket repair work has taken at times up to a year for repaired parts to be returned to RT.	RT's experience with Siemens support has been consistent since the purchase of the U2 Vehicles in approximately1986.	RT believes that Siemens support for warranty and aftermarket located in the Sacramento Area will provide superior support over Alstom TLS.
		Examples provided some complete vehicle overhauls, although none were of LRV's.	Examples provided were of complex sub-system refurbishments on LRV, including one with Sacramento RT for the Communication system for the U2a Vehicles.	Siemens understanding of LRV and having several overhaul projects outweighs Alstom's many project working on Heavy/Commuter Rail.
Financial Capacity		No issues.	No issues. Provided a cost savings to RT of a Parent Company Guarantee as a alternative to the Performance Bond.	Siemens suggestion saved \$214K on the proposal cost.

Page 18 of 26

Subsystem Suppliers	Ŋ	 RT rejected the first supplier for the APS because the Supplier "Technologies Lanka" had no experience manufacturing APS units. Alstom later provided a second supplier that RT accepted. 2) Suggested a different Event Recorder than requested in the specifications, (RT did not reject). 	All sub-systems met RT's requirements.	RT had concerns with Alstom's decision to pick an unknown, unproven APS supplier that had never designed the most complex sub-system required for the Vehicle refurbishment.
Supplier Experience		Suggested APS Supplier with no experience for the systems proposed to be supplied.	Suggested sub-supplier has been producing similar systems in the Light Rail Industry for many years.	RT would be concerned with Alstom using a sub-supplier that was a 'second choice' by the Proposer.
Manufacturing Capability		RT was concerned about the original APS supplier was relocating and the retention of experienced personnel.	All of the Sub-suppliers selected have proven success with Siemens.	RT would be concerned with Alstom decision of using a sub-supplier that would be relocating at the time of our project.
Part 2 - Referenced Projects:	m	Alstom did not include any LRV projects, only heavy rail and commuter rail project provided.	Siemens provided several project all with LRV's. Siemens completed a complex project for RT. Alternate processes were suggested to RT that increased productivity and saved labor costs.	Siemens understanding of LRV and having several overhaul projects outweighs Alstom's many projects working on Heavy/Commuter Rail.
Part 3 - Project Staffing and Experience:	12			
Staffing Plan and Resumes		Besides the Project Manager (PM) and the Deputy PM, all of the other disciplines would be hired locally. RT is concerned that the staff hired locally will not have light rail industry experience.	All of the Project team will be provided from within Siemens existing experienced staff. Siemens hired as an expert technical support a former VTA employee that is familiar with the UTDC Vehicles.	RT is concerned that the learning curve with Alstom's staff would affect the project schedule and quality of the work, especially on the first few vehicles/prototypes.

Procurement Review of UTDC Light Rail Vehicle Refurbishment RFP No. 2010043 4/6/2012 2010043.Procurement Review.UTDC LRV.Refurb For IP.doc

Page 19 of 26

			DN selected has a Masters in	The DM for Cismons had direct areas
		experience The PM's resume	r w selected has a Mastel's III Flectrical Endineering and has	working with PT and was suported to
		· 2	worked on past successful	Alstom's' choice
		tense wording. An alternative PM	projects including one with RT	
		was submitted and based on the		
		resume was accepted by RT.		
		Upon further investigation, RT		
		found that his BS in Electrical		
		Engineering education was from		
		on a 60 Minutes television		
		program.		
Part 4 - Technical	35		in i dan da daa waxaa waxaa dada muuda a daga a Namela da angka a co muu da dada angka muu dada angka angka ang	
Submittal:				
Approach to Accomplish	ი	The responses were vague, most	The proposal provided detailed	RT evaluation team concluded that Siemens
the Work		were answered with "Alstom shall	descriptions for each step and	had a better understanding of the project.
		be compliant with the	Siemen's asked many additional	RT was very concerned that Alstom did not
		requirements of this section".	questions during negotiations.	fully understand of the vehicles and scope of
		The Excel spreadsheet that	Their approach was detailed	work. Because their proposal was vague, RT
		Alstom provided at the October	beyond their proposal.	could not be confident that Alstom would
		negotiations meeting provided		perform the work for the amount proposed.
		very little additional information.		-
		During negotiations Alstom spent	During negotiations Siemens	
		little time asking questions or	asked many detailed questions	
		presenting any additional	regarding work coordination,	
		information. Alstom presented	vehicle workspace and work to	
		alternative solutions to on-going	be performed off-site at their	
		Maintenance tools.	Facility.	
		Alstom does not possess any	Siemens manufacturing facility	Siemens local facility and having existing
		tooling or equipment for the	possesses the majority of the	tools and equipment is an advantage to RT.
		project and intends to buy	tooling needed for the project.	
		everytning.		
		No Engineering costs were	Distributed the Engineering	Vehicles will have some differences that will
		allocated to each vehicle;	costs throughout the 21	require engineering support. Siemens
		therefore, there were no	vehicles. RT anticipates that	Proposal reflects a better understanding of
		allowances for engineering	each vehicle will need some	the project needs.
		support on a per vehicle basis.	custom design solutions.	

Procurement Review of UTDC Light Rail Vehicle Refurbishment RFP No. 2010043 4/6/2012 2010043.Procurement Review.UTDC LRV.Refurb For IP.doc

Page 20 of 26

		High risk for Change orders can increase the price post award.	Lower risk of change orders with the proposal.	The lower priced proposal was of higher risk. Siemens proposal was in depth and detailed. Alstom's proposal was vague and it was hard for RT to determine if all the work required was understood and priced accordingly.
		Up-front cost of 20% or \$3,000,000 only allows 3 of the 7 LRV's to be completed with ARRA funding.	Up-front costs of \$500,000 allows RT to complete the committed 7 Vehicles with the ARRA funds available.	RT believes that Siemens proposal distributed the engineering costs in a more realistic way.
		Training price was higher and they priced each line item as an average of the total price. The Manuals were priced much the same way, 4 out of 5 line items as an average of the total price.	Each bid price was priced individually in accordance with the scope of work.	Siemens proposal is in line with the Engineering estimate. Alstom's method for obtaining each line items pricing does not seem to be based on actual estimates.
Quality Control	Ω	Other than the PM all QA/QC daily functions will be brought in as new hires locally.	Proposed process is well outlined and established. LRV trained Inspector will be used from their Sacramento facility.	Siemen's approach of using a QA/QC manager who already has experience in the LRV industry will ensure better quality management over Alstom's hiring of a local person with unknown LRV experience.
Compliance with Technical Specifications	ω	The Team finds that there is little to evaluate since the proposal had little detail.	The proposal was well written and detailed, many additional issues were brought up during negotiations that provide RT with assurance that Siemens had a complete understanding of the work.	The Team feels that the risk of unanticipated issues would be greatly reduced by selecting Siemens.
Relevant Design and Manufacturing of Subsystems - New Subassembly Components:				
Auxiliary Power System	S	Second Offer was approved	The Supplier is also being used on Siemens new LRV's.	The team believes that a proven system currently in use by Siemens will provide a better product for RT.
Communications System	ю	Proposed same Supplier	Proposed same Supplier	None
Procurement Review of UTDC Light Rail Vehicle Refurbishment RFP No. 2010043	Rail Vehicle	e Refurbishment RFP No. 2010043		Page 21 of 26

Procurement Review of U LUC LIGNT Rail Venicie Returbishment RFP No. 2010043 4/6/2012 2010043.Procurement Review.UTDC LRV.Refurb For IP.doc

Event Recorder System		Proposed a different supplier than requested.	Proposed what RT requested.	RT suggested that either Bach-Simpson or Secheron be supplied, Alstom suggested a system unknown to RT.
Project Schedule	υ	The project schedule did not start the teardown of any vehicle until 2nd quarter of 2012 at the same time the major sub-systems are scheduled to be procured. No truck assemblies from the last vehicle were considered to be used as floaters.	Siemens approach is to remove the trucks from the last vehicle on the schedule to use as floater components at NTP. Teardown on LRV 1 & 2 would start the next month.	ove RT believes the Siemens approach allows cle the most flexibility in components, their pater decision to teardown the first vehicles at the own start also provides a way to find any unforeseen issues. Alstom waiting until the major components are available is more of a risk than Siemens plan to teardown the vehicles right after NTP to allow more time to address unplanned scope earlier in the project.
Price	N/A	Alstom received the maximum allowed points for submitting the lowest price.	Siemens received lower points for submitting the higher priced proposal.	Price points were allocated on a mathematical basis per the RFP.

Evaluation Scoring

Final Offers were requested on January 31, 2012 and after final evaluation and scoring of all Proposals and Final Offers, and completion of a cost analysis, the results are as follows:

<u>Name</u>	Total Score (out of 700 points)	Average Weighted Score
Alstom	523.5	75
Siemens	587	84

The comments from the Evaluators have been consolidated into one document. See Exhibit I and the Report of Summary of Evaluators Scores Exhibit J(Not Included).

Proposal Price Summary

The following page is a summary of the original proposal pricing and the Final Price Proposal. The changes are summarized in the columns titled 'Change'.

Alstom decreased its price by \$200,000.00 to reflect RT supplying the Contractor a trailer to house its staff and to reflect a change to the slewing requirements reflected in contract negotiations.

Siemens made several changes to their pricing as a result of negotiations including clarifications of scope, and increases with labor rates and supplier costs due to the length of time from the original price proposal to the request for the Final Offer.

RT later resolved these items with Siemens:

- 1. RT agreed to a savings of \$214,000 by using a Parent Company Guarantee in lieu of a Performance Bond.
- 2. Siemens willing to use RT's paint booth at no extra costs should shop floor painting permits are not obtainable.

		Change		All figures	due to Price increases from Nov to	Feb & 2/23/12 - PCG	reduced by 214K			
		Price per LRV							\$ 936,957.13	
	SIEMENS	Final Price	\$ 465,491.00	\$ 17,668,804.70	\$ 1,153,655.00	\$ 64,585.00	\$ 240,032.00	\$ 83,532.00	\$ 19,676,099:70	(\$318,589.20)
		Nov Bid Price	\$486,501.00	\$18,016,611.90	\$1,125,939.00	\$64,888.00	\$217,313.00	\$83,436.00	\$19,994,688.90	Bid Price Difference between Alstom & Siemens (3,699,829 <i>±</i> /0)
		Change	Table A	Table B						ofference betwe Siemens (3;699,829,70)
		Price per							\$ 760,774.76	Bid Price D
	ALSTOM	e constant de la cons La constant de la cons La constant de la cons	\$ 2,800,000.00	\$ 11,577,569.00	\$ 966,926.00	\$ 46,775.00	\$ 460,000.00	\$ 125,000.00	\$ 15,976,270.00	(\$223,730.00)
MARY		A Contraction of the second se	\$ 3,000,000.00	\$ 11,601,299.00	\$ 966,926.00	\$ 46,775.00	\$ 460,000.00	\$ 125,000.00	\$ 16,200,000.00	
CONTRACT PRICE SUMMARY		Description	Project Schedule and Vehicle Design	Vehicle Refurbishment	Spare Parts	Special Tools and Diagnostic Test Equipment	Manuals	Training	TOTAL CONTRACT PRICE:	Net Difference
ା ଧ 		TAB LE	A	В	U		Ш	ш	TOTAL	
		Bid ttem No.	-	2	n	4	5	٥		

Procurement Review of UTDC Light Rail Vehicle Refurbishment RFP No. 2010043 4/6/2012 2010043.Procurement Review.UTDC LRV.Refurb For IP.doc

Page 24 of 26

Price Analysis

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Evaluation of the final proposal pricing is detailed in an Excel report named "RFP 2010043 Final Pricing Comparison with Engr Est." See Exhibit K.

Both Proposal Prices are within the Engineering Estimate. Cautionary notes include:

- LTK provided estimates based on history of new Vehicle procurements. Since few refurbishments have been completed in the United States, little data is available for comparison.
- LTK cautioned that market prices may differ.
 - Older equipment can be more expensive to maintain over time.
 - Market price for new technology (i.e. communications systems) becomes lower over time.
- A line-by-line comparison is not easily done due to variables in technology. For example the cost of overhauling old systems and outdated technology rises as the equipment ages.
- The cost of technology, such as communication equipment goes down as the market matures.
- LTK's estimate for items such as manuals and training accurately represent true costs.

Table	Description	Summary
A	Project Schedule and Vehicle Design	Alstom's price was \$2.3 million higher than Siemens. Alstom included all engineering costs in Table A. Siemens spread engineering costs throughout Table B.
В	Vehicle Refurbishment	 Some of Siemens line items were higher in part due to distribution of engineering costs allocated throughout the project as opposed to Alstom's method of allocating most engineering costs to Table A Project Schedule and Vehicle Design. Siemens price was higher, but the level of detail and comprehensiveness of its proposal indicates a greater understanding of the scope of work.
С	Spare Parts	Proposer's prices are comparable.
D	Special Tools and Diagnostic Test Equipment	The engineering estimate did not provide complete estimates. Proposer's prices are comparable.
E	Manuals	Siemens price best fit the engineering estimate. Alstom's price was double the price of the engineering estimate and Siemens price. Alstom priced 4 out of 5 line items as an average of the total price.
F	Training	Siemens price best fit the engineering estimate. Alstom's price was higher and it priced each line item as an average of the total price.

Recommendation for Contract Award

Notice of Intent to Recommend Conditional Award of Contract letters were sent to Alstom and Siemens on February 21, 2012.

EXHIBITS

- Exhibit A UTDC Vehicle Refurbishment Project Schedule (Not Included)
- Exhibit B Planholders List (Not Included)
- Exhibit C-1 Contract Negotiations Letters to Alstom dated October 10, 2011 (Not Included)
- Exhibit C-2 Contract Negotiations Letter to Siemens dated October 10, 2011 (Not Included)
- Exhibit D-1 Alstom Negotiation Meeting Sign-in-sheets (Not Included)
- Exhibit D-2 Siemens Negotiation Meeting Sign-in-sheets (Not Included)
- Exhibit E-1 Alstom Final Agenda (Not Included)
- Exhibit E-2 Siemens Final Agenda (Not Included)
- Exhibit F-1 Summary of Negotiations with Alstom (Not Included)
- Exhibit F-2 Summary of Negotiations with Siemens (Not Included)
- Exhibit G-1 Letter Request to A Istom for Final Offers (Not Included)
- Exhibit G-2 Letter Request to Si emens for Final Offers (Not Included)
- Exhibit H Trade-offs for Final Selection (Not Included)
- Exhibit I Evaluation Committee Comments (Not Included)
- Exhibit J Evaluation Scores (Not Included)
- Exhibit K Final Price Comparison

RFP 2010043 UTDC Vehicle Returbishment Project Final Pricing Comparison

				CON	CONTRACT PRICE SUMMARY	UMMARY							
						ALSTOM				SIEMENS			
No.	TABLE	Description	Engr Estimate"	Price per LRV	Nov Bid Price	Final Price	Price per LRV Q	Change Nov	Nov Bid Price	Final Price	Final Price Price per LRV C	Change	Net Difference
-	×	Project Schedule and Vehicle Design	\$4,382,776.33		\$ 3,000,000.00	\$ 2,800,000.00	r -	Table A \$2	\$486,501.00	\$ 465,491.00		57	\$ (2,334,509.00)
N		Vehicle Refurbishment	\$15,382,666		\$11,601,299.00	\$11,601,299.00 \$11,577,569.00	13	Table B \$18,0	\$18,016,611.90	S17,668,804.70		were were changed \$	6,091,235.70
	U	Spare Parts	\$ 549,800.00	- <i>1</i> .	\$ 966,926.00	0 \$ 966,926.00		5	\$1,125,939.00	\$ 1,153,655.00		Price Price Increases	186,729.00
4	0	s and Diagnostic Test Equipment	\$ 270,000.00		\$ 46,775.00	\$ 46,775.00			\$64,888.00	\$ 64,585.00	- 20	trom Nov to Feb & 2/23/12 - S	17,810.00
ы	ш	Manuais	\$ 257,787.22		\$ 460,000.00	0 \$ 460,000.00		64	\$217,313.00	\$ 240,032.00		PCG by 214K	(219,968.00)
e	L	Training	\$ 93,490.89		\$ 125,000.00	0 \$ 125,000.00			\$83,436.00	\$ 83,532.00		↔	(41,468.00)
		TOTAL CONTRACT PRICE: \$20,936,520 44 \$ \$956,977.16 \$16,200,000.00 \$15,976,270.00 \$ 760,774.76	\$20,936,520.44	\$ 996,977.16	\$16,200,000.00	\$15,976,270.00	\$ 760,774.76	\$19,	\$19,994,688.90	\$19,676,099.70	\$19,676,099,70 \$ 936,957.13		\$ 3,699,829.70
	,	Net Difference				(\$223,730.00)	((\$318,589.20)			
		Difference from Engr Est.				S(4,960,250.44)	(\$(1,260,420.74)	~		
		*Engineering Estimate was developed from historical figures for new LRV procurements					Bid Price Difference between Alstom & Siemens (5,543, 223, 70)	Difference betwee Siemens (3:599,829 70)	en Alstom &				
		**Table A was adjusted to moved \$ 773,431.00 (costs included in Vehicle Design) to Table B Vehicle Refurbishment											

Sheet - Summary

Exhibit K

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Final Pricing Comparison Table A

465,491.00 57,660.00 39,531.00 19,205.00 6,063.00 55,570.00 287,462.00 Final Price SIEMENS \$486,501.00 \$ 63 ю \$66,293.00 \$ \$41,850.00 \$ \$20,200.00 \$ \$6,418.00 \$ \$64,179.00 \$ \$287,561.00 **Nov Bid Price** ю 250,000.00 Each Item lowered 1,400,000.00 based on RT Offered \$200,000 concerns of Front loading. price reduction which savings from trailer rental. Change includes ţ \$515,620.75 \$ 200,000.00 \$ 190,000.00 \$773,431.12 \$ 1,500,000.00 \$ 1,400,000.00 \$515,620.75 \$ 200,000.00 \$ 190,000.00 190,000.00 580,000.00 \$4,382,776.33 \$ 3,000,000.00 \$ 2,800,000.00 Final Price ALSTOM TABLE A - PROJECT SCHEDULE AND VEHICLE DESIGN 200,000.00 \$ 300,000.00 \$ 600,000.00 \$ Ł Nov Bld Price \$515,620.75 \$ \$1,546,862.24 \$ \$515,620.75 \$ Engr. Est. TOTAL PRICE: Text Deleted Sum Sum Lump Sump Lump Sum Lump Sum Lump Sum ଥି. Project Schedule, including LRV Baseline Schedule & Design Schedule Submittals Communication System Design Completion Preliminary Design Review for Vehicle Final Design Submittal and Approval Auxiliary System Design Completion Event Recorder Design Completion Description Text Deleted Milestone A5 A6 A7 R Ŗ A Ł

(\$21,010.00)

(\$200,000.00)

Net Difference

Exhibit K

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Sheet - Schedule and Design

Final Pricing Comparison Table B

	ALSTON		A	ALSTOM		SIEMENS	ENS
Table TS Section	D	Engr. Est.	Nov Bid Price	Final Price	Change	Nov Bid Price	Final Price
B-1 NA	Note: There is no Table B-1.						
<i>"</i>			\$ 1,280,580.00			\$3,514,856.10	\$ 3,280,695.50
B-3 Sec 3	Truck		\$ 921,516.00 \$	897,786.00	B3#5/6	\$2,619,483.30	\$ 2,505,455.40
B-4 Sec 4			\$ 530,880.00			\$675,234.00	\$ 598,500.00
B-5 Sec 5	Audiliary Power System		\$ 1,630,566.00			\$2,459,646.00	\$ 2,466,156.00
B-6 Sec 6			\$ 1,014,195.00		-	\$1,936,557.00	s 1,961,799.00
B-7 Sec 7	Door System		\$ 628,425.00			\$640,094.70	\$ 546,283.50
			\$ 3,033,450.00			\$3,138,618.00	\$ 3,225,747.00
B-9 Sec 9			\$ 931,602.00			\$859,278.00	\$ 799,575.00
B-10 Sec 10	D Miscellaneous Electrical Equipment		\$ 1,082,760.00			\$1,352,311.80	\$ 1,561,797.30
	1 Vehicle Testing		\$ 547,325.00			\$820,533.00	\$ 722,796.00
╂──		\$ 14,609,235.00					
	LTK Estimate adjustment from Table A Design Cost for testing activities	773,431					
					_		
	TOTAL PRICE:	\$15,382,666 \$	\$ 11,601,299.00 \$	\$ 11,577,569.00		\$18,016,611.90	\$ 17,668,804.70
	Net Difference	92		(\$23,730.00)	ô		(\$347,807.20)

Exhibit K

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Sheet - Vehicle Refurbishment

Final Pricing Comparison Table E

TABLE E – MANUALS PRICE BREAKDOWN

End Unit Siemens Final Offer Rie Imative Unit Price Total Price Total Price Unit Total Price				•										
Unit Unit Unit Unit Total Price Unit Price Un					ш	ingr Est		Aktom	Alstom Final	Siel	nens	Siemens	s Final Off	er
\$ 59,821.80 NA \$ 120,000.00 \$ 120,000.00 \$ 120,000.00 \$ 120,000.00 \$ 120,000.00 \$ 120,000.00 \$ 120,000.00 \$ 100,000.00 \$ 100,000.00 \$ 100,000.00 \$ 100,000.00 \$ 100,000.00 \$ 100,000.00 \$ 100,000.00 \$ 100,000.00 \$ 100,000.00 \$ 120,000.00	Bid Item	Unit		ð.			200 - A.C.C.		Total Price	Unit Price	and the second	Unit Price		Price
\$ E9,321.80 NA \$ 100,000.00 \$ 100,000.00 \$ 100,000.00 \$ 100,000.00 \$ 100,000.00 \$ 100,000.00 \$ 68,45.00 \$ 68,45.00 \$ 68,48.00 \$ 71,821.80 NA \$ 120,000.00 \$ 120,000.00 \$ 120,000.00 \$ 55,473.00 \$ 68,473.00 \$ 89,856.00 \$ 56,821.80 NA \$ 120,000.00 \$ 120,000.00 \$ 120,000.00 \$ 120,000.00 \$ 12,849.00 \$ 12,942.00 \$ 257,787.22 \$ 460,000.00 \$ 460,000.00 \$ 460,000.00 \$ 460,000.00 \$ 460,000.00 \$ 12,849.00 \$ 12,942.00		ğ	Maintenance Manuals			59,821.80			\$ 120,000.00	\$70,836.00		\$ 71,349.00	5 71	349.00
\$ 71,821.80 NA \$ 120,000.00 \$ 120,000.00 \$ 120,000.00 \$ 855,473.00 \$ 855,473.00 \$ 89,856.00 \$ 56,821.80 NA \$ 120,000.00	N	Lot	Heavy Repair Manuais	Lump Sum	\$	69,321.80		\$ 100,000.00	\$ 100,000.00	\$68,155.00		\$ 68,648.00	5 68 0	648.00
\$ 56,821.80 NA \$ 120,000.00 \$ 120,000.00 \$ 120,000.00 \$ 12,942.00 \$ 12,942.00 \$ 12,942.00 \$ 12,542.00 <th< td=""><td>9</td><td>Fo</td><td>Illustrated Parts Manuals/Catalog</td><td>Lump Sum</td><td>\$</td><td>71,821.80</td><td>NA</td><td>\$ 120,000.00</td><td>\$ 120,000.00</td><td>\$65,473.00</td><td></td><td>\$ 89,856.00</td><td>8 8 0</td><td>856.00</td></th<>	9	Fo	Illustrated Parts Manuals/Catalog	Lump Sum	\$	71,821.80	NA	\$ 120,000.00	\$ 120,000.00	\$65,473.00		\$ 89,856.00	8 8 0	856.00
\$ 257,787.22 \$ 460,000.00 \$ 460,000.00 \$ 460,000.00	4	۲ ۲	Drawings and Schematics	Lump Sum	63	56,821.80	AN	\$ 120,000.00	\$ 120,000.00	\$12,849.00		\$ 12,942.00	0 \$ 12	942.00
	(Trans	sfer Total Pr.	ice to Contract Price Summary, Bid Item 5, Table E) 7	TOTAL PRICE:	27 59	57,787.22		\$ 460,000.00	\$ 460,000.00	\$	\$217,313.00		\$ 242	795.00

Sheet - Manuals

4---

Final Pricing Comparison Table F

		TABLE F	TABLE F ~ TRAINING PRICE BREAKDOWN	BREAKDOWN	:		
			-	Alstorn	Alston Final N/C	Siemens	Siemens Final
Ba				-			
Item	Calif	Description	Engr Estimate	Total Price	Total Price	Total Price	Total Price
-	Hrs.	Auxiliary Power System	\$ 17,798.18 \$	\$ 25,000.00 \$	\$ 25,000.00	\$27,900.00	\$ 28,260.00
2	Hrs.	Communication System	\$ 18,298.18	\$ 25,000.00	\$ 25,000.00	\$12,540.00	<u>لە</u>
3	Ś	Event Recorder	\$ 14,612.72	\$ 25,000.00	\$ 25,000.00	\$10,140.00	\$ 10,272.00
4	Hrs.	Vehicle Sub-System	\$ 20,298.18	\$ 25,000.00	\$ 25,000.00	\$18,960.00 \$	
S	Hrs.	Vehicle System Integration	\$ 22,483.63 \$	\$ 25,000.00 \$	\$ 25,000.00	\$13,896.00	\$ 14,064.00
		TOTAL PRICE:	\$ 93,490.89	\$ 125,000.00	\$ 125,000.00	\$83,436.00	\$ 84,492.00

Sheet - Training

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Exhibit K

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Final Pricing Comparison Table "Additional Work"

		ADDITIONAL WORK									
					Alston Final	ı Final			Siemens Fianl	: Fianl	Γ
EXTER During th corrosior	EXTERIOR CARBODY REPAIR Juring the course of the refurbish corrosion may be uncovered that v	EXTERIOR CARBODY REPAIR During the course of the refurbishment it is likely that hidden damage or deterioration from rust or corrosion may be uncovered that will require additional repair.	erioration from	i rust or				the second s			
Bid Item	TS Section	Description	Area	Ċ.	Unit Price	Total Price		Unit Price		Total Price	8
	2.2.1	Carbody Exterior Body Repair						e med with a name			ſ
-	2.2.1	Carbody Class 1 Body Repair	2ftX2ft	-	\$ 145.00	\$ 145.00		\$	145.00	\$ 145.00	8
2	2.2.1	Carbody, Class 2 Body Repair	2ftX2ft	+	\$ 217.50	\$ 217.50		() ()	251.00	\$ 251.00	8
e	2.2.1	Carbody Class 3 Body Repair	2 ft X 2 ft	t.	\$ 362.50	\$ 362.50 f	without frame	\$	655.00	\$ 655.00	8
								a second	1		
INTERIOR I During the ∞ corrosion ma	IOR FLOOR F he course of t n may be unc	INTERIOR FLOOR REPAIR During the course of the refurbishment it is likely that hidden damage or deterioration from rust or corrosion may be uncovered that will result in variable adjustments to the floor and subfloor commonents	terioration from	n rust or or				19 TO LE DE DO DE DE DO DE DO			
Bld	TS							10724201			
Item	Section	Description	Area	Ę.	Unit Price	Total Price	ar te di NGA C	Unit Price		Total Price	8
	2.2.8	Interior Floor and Subfloor Repair									
4-		Floor Class A (Floor coverings show damage, aging and deterioration)	2#X2A	-	\$ 217.50	\$ 217.50	1769 (N	\$	193.00	\$ 193.00	8
8		Floor Class B (Areas show lifting or bubbles)	2ftX2ft	-	\$ 217.50	\$ 217.50		. Ф	270.00	\$ 270.00	8
з		Floor Class C (Unknown subfloor damage)	2ftX2ft	۲	\$ 261.00	\$ 261.00		Ŷ	596.00	\$ 596.00	8
4		Subfloor	2 ft X 2 ft	1	\$ 1,015.00	\$ 1,015.00		ф	596.00	\$ 596.00	8
		No Engineering Estimate									٦

Sheet - Additional Work

Exhibit K

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ALSTOM

TRANSPORT NORTH AMERICA ALSTOM Transportation Inc. 1001 Frontenac Road Naperville, IL 60563 Office: (630) 369-7525 Mobile: (630) 699-5011 e-mail: Jim.Lindsay@transport.alstom.com

May 30, 2012

Via email to <u>mwiley@sacrt.com</u> and US Mail

Sacramento Regional Transit District Mr. Michael R. Wiley, General Manager/CEO 1400 29th Street (Box 2110), Sacramento, CA

Re: RFP 2010043, UTDC Light Rail Vehicle Refurbishment Notice of Intent to Recommend Award of Contract **Response to RT Letter of May 24, 2012 Concerning Protest filed on February** 28, 2012

Dear Mr. Wiley,

Thank you for your May 24th letter. This letter serves as notice that Alstom requests the protest continue to the RT Board for decision.

Sincerely,

Fudery Allah

Jim Lindsay Vice President and Customer Director

Via email:<u>mnoble@sacrt.com</u> srobison@sacrt.com



Sacramento Regional Transit District A Public Transit Agency and Equal Opportunity Employer

Mailing Address: PO Box 2110 Sacramento, CA 95812-2110

Administrative Office: 1400 29th Street Sacramento, CA 95816 (916) 321-2800 (29th St. Light Rail Station/ Bus 36,38,50E,67,68)

Light Rail Office: 2700 Academy Way Sacramento, CA 95815 (916) 648-8400

Human Resources Office: Employee Relations Office: 2830 G Street, 2nd Floor Sacramento, CA 95816 (916) 321-3800 (Bus 30,31,34,67,68)

Public Transit Since 1973

www.sacrt.com

May 24, 2012

VIA EMAIL TRANSMISSION ONLY

ATTACHMENT A Item Number 4

Jim Lindsay, Vice President and Customer Director Alstom Transportation, Inc. 1001 Frontenac Rd. Naperville, IL 60563

Dear Mr. Lindsay:

Subject: RFP No. 2010043, UTDC Light Rail Vehicle Refurbishment -Notification of the General Manager/CEO's Recommendation Project File/CN: 2010043

This letter serves as notice of my decision to recommend that the RT Board of Directors, which is the awarding authority, deny Alstom's February 23, 2012 protest of RT Staff's intent to recommend award of the contract for UTDC Light Rail Vehicle Refurbishment to Siemens Industries, Inc. In accordance with RFP Section II, E.10. Further Investigation of Protest, I opted to seek the services of an independent investigator to further investigate Alstom's protest. Enclosed is a copy of the investigator's report.

Per RFP Section II, E. 11, Alstom has five working days from the date of this letter to notify me that the protest is withdrawn or that Alstom requests the protest continue to the RT Board for decision. If Alstom fails to submit a notice that it desires to continue the protest by Friday, June 1, 2012, the protest will be deemed to be withdrawn.

If Alstom requests the protest continue to the Board for decision, the protest will be heard at the next regular RT Board meeting, on Monday, June 11, 2012 at 6 p.m. in the RT Auditorium. The Board agenda packet will be distributed to Alstom and all interested parties no later than Tuesday, June 5, 2012. Any new comments, evidence or materials that Alstom would like to have included in the agenda packet must be submitted to RT by noon on Monday, June 4, 2012. While Alstom will also have an opportunity to present evidence at the hearing. submission of the materials in advance will allow for an informed discussion and evaluation by the Board, with a view toward prompt resolution of the protest.

Sincerely,

MichaelRully

Michael R. Wiley General Manager/CEO

Enclosure

Via Email: Jim.Lindsay@Transport.Alstom.com

Randall Miller, Director, Procurement Services C: Fernando Barcena, Manager, Contracts and DBE Colleen Elder, Materials Management Superintendent Sue Robison, Senior Procurement Analyst **RT** Legal Department



INVESTIGATION SERVICES FOR PROCUREMENT PROTEST OF THE UTDC LIGHT RAIL REFURBISHMENT RFP NO. 2010043

MAY 24, 2012

SUBMITTED BY: RAUL V. BRAVO + ASSOCIATES, INC. 1889 PRESTON WHITE DRIVE, SUITE 202 RESTON, VA 20191 T: 703-326-9092 F: 703-326-9096 E MAIL: <u>CONTACT@RVBA.COM</u> WWW.RVBA.COM

Table of Contents

.3
.4
.5
.9
2
6

Executive Summary

To meet RT's need for additional rolling stock for upcoming Light Rail service expansions, RT took advantage of the availability of surplus equipment from Santa Clara VTA and purchased 21 UTDC Light Rail Vehicles (LRV's) in 2003-4. This acquisition was concurrent with the purchase of 29 identical units from the same fleet of 50 LRV's by Utah Transit Authority (UTA).

All of these LRV's needed midlife refurbishments as well as technical upgrades, and UTA chose to use local funds to move forward with their rehab program. The procurement methodology chosen by UTA for their rehab effort resulted in an increase of 55% in the final value of their contract over the original price.

RT's staff took advantage of the opportunity to study the entirety of UTA's refurbishment program and used the lessons learned at UTA to structure RT's own RFP for this effort. After careful analysis, RT staff determined that of all procurement methodologies allowed under the applicable Federal statutes and local ordinances, the one that provides the best opportunity to reduce the risk of a cost increase on the scale of UTA's is the Best Value approach to contracting.

Following RT Board's approval of the Best Value contracting approach, RT staff completed all necessary documentation and the RFP for the work was issued in May of 2011. From that date forward RT staff practiced strict adherence to the rules governing a Best Value procurement.

Proposals were received by RT from two contractors and the requisite steps of negotiations, communications and Final Offers were followed as prescribed by the Governance of Best Value. Scoring of the Final Offers by RT staff resulted in the selection of Siemens as the preferred Proposer for recommendation of award of the contract.

Upon receipt of RT's notice of the selection of Siemens, the other Proposer (Alstom) immediately filed a protest within the guidelines of the procurement. Multiple exchanges of letters between RT and Alstom ensued, and a face-to-face meeting was held in hopes of resolving the Protest.

These exchanges between RT and Alstom did not result in a resolution of the Protest, so RT chose to issue an RFQ seeking the services of an independent outside reviewer to study the documentation of the procurement, its adherence to required Governance and to issue a recommendation on how to proceed.

The findings of the Study are that RT has carefully adhered to the Governance requirements of Best Value procurements and RT staff has methodically administered this RFP process in its execution. There are no issues raised within the Alstom Protest that justify overturning the Staff recommendation for award to Siemens.

Purpose

The consulting firm Raul V. Bravo + Associates, Inc. (RVB+A) is to analyze: the protocol followed by RT's staff in the evaluation of Proposals submitted by the proposers; the observance of governing directions included within the Federal Transit Administration's and other relevant Governing Manuals; and the issues raised in Alstom's protest letter and supplemental submissions. Alstom's submissions were filed in response to the Sacramento Regional Transit Districts' determination that Siemens Industry, Inc.'s Proposal submitted in response to RFP No. 2010043 was most advantageous to the District.

Based upon that analysis, the consultant is to provide its findings. These findings may be considered a recommendation as to how to proceed.

Background

In 2003, RT acquired 21 UTDC Light Rail Vehicles (LRVs) from Santa Clara Valley Transportation Authority (VTA). These vehicles were originally placed into service at VTA starting in 1987 and were due for a routine midlife refurbishment at the time of their purchase by RT. In addition, they required necessary technical modifications to ensure their compatibility with the infrastructure of RT's light rail system and compliance with the Federal Americans with Disabilities Act (ADA).

RT was fortunate that its acquisition of these vehicles from VTA coincided with Utah Transit Authority's (UTA) simultaneous purchase of the balance (29 cars) of VTA's older fleet of 50 UTDC LRV's. The availability of significant local funding sources allowed UTA to forgo the time consuming processes required to secure Federal allocations, so UTA was able to quickly push ahead with the refurbishment of their UTDC equipment. Lessons learned from the UTA program were studied by RT's staff and served as a directly relevant test lab for the subsequent development of RT's refurbishment program.

The lessons from the UTA rehab were blended in with the professional experience gained by two of RT's key in-house personnel who were directly involved in commissioning and maintaining the UTDC cars when they were received and operated at VTA. This combination of experiences lead to the decision to hire LTK Engineering to inspect the UTDC cars at RT and to then develop the technical specification for the rehabilitation of those cars. Lessons from the UTA program also served to demonstrate to RT Staff and Management that the procurement methodology that would provide the greatest potential for a successful cost-effective rehabilitation of the UTDC cars would be the Best Value approach provided for in the existing Federal, and State statutes and local ordinances that govern the funding streams to be used to pay for the work.

Key milestones that flowed from the adoption and application of the Best Value methodology were as follows:

July 2010 - RT completes Peer Review of UTA's UTDC Refurbishment Program:

- Development of Technical Specification by LTK begins,

- Development of Commercial Terms and Special Provisions for the RFP begins.

March 2011 - RT Management formally recommends, and RT Board officially approves, Best Value procurement approach to managing UTDC LRV refurbishment.

May 19, 2011 - Technical Specification, Commercial Terms and Special Provisions completed and RFP issued.

June 1, 2011 - Pre-Proposal Meeting and first official viewing of UTDC vehicles by prospective proposers held at RT's Metro Heavy Repair Facility site.

June 13, 2011 - Second site visit by prospective proposers to inspect UTDC vehicles

July 12, 2011 - Third site visit by prospective proposers to inspect UTDC vehicles.

Multiple dates - RT issues RFP Addenda and Letters of Clarification, responds to written questions from RFP Planholders.

September 8, 2011 - Proposals received from Alstom and Siemens. Copies of the Technical Sections of the two Proposals are distributed the same day to RT Proposal Evaluation Committee members, including instructions for them to follow in independently preparing their scoring of the Technical portions of the two Proposals. Prices were not opened and were kept separate and under seal by RT Procurement.

September 16, 2011 - RT Proposal Evaluation Committee meets to begin group discussions of scoring sheets for Technical Proposals and the documentation of individual evaluation comments by members.

September 16, 2011 - Price Proposals opened and total scores compiled for Alstom and Siemens, both of whom are determined to be within the competitive price range as established by the LTK estimate.

October 10, 2011 - Letters of invitation sent to both firms inviting them to participate in separate face-to-face negotiations with RT, scheduled for October 27 and October 28, 2011. Letters included lists of items to be discussed on those dates.

October 27, 2011 - Negotiations held between RT and Alstom.

October 28, 2011 - Negotiations held between RT and Siemens.

These negotiation meetings were followed up by written exchanges between RT and the Proposers to secure clarifications and the refinement of their respective offerings, to the extent permitted under the Governance of this procurement. These exchanges continued until the individual Proposers sought no further answers or clarifications from RT.

November 4, 2011 - Final submittal of clarifications received from Alstom in response to issues raised during Negotiations.

January 27, 2012 - Final submittal of clarifications received from Siemens in response to issues raised during Negotiations. It should be noted here that this additional time is a direct reflection of the extensive and thorough level of investigation sought by Siemens to ensure clarity in its understanding of the work product necessary to meet the needs of RT for this refurbishment program. The staff did not lead Siemens into this deeper discussion; it was a result of initiatives taken by Siemens as provided for within the Governance of a Best Value procurement.

January 31, 2012 - Final Offers are requested from both Alstom and Siemens, with a due date of February 8, 2012.

February 8, 2012 - Final Offers received from both Proposers by RT.

February 10, 2012 – RT Proposal Evaluation Committee begins independent scoring of Final Offers.

February 15, 2012 - RT Proposal Evaluation Committee members meets to begin group discussions of scoring sheets for Final Offers and documents their comments. Members make a determination that Siemens was found overall to be the most advantageous proposal to RT.

February 21, 2012 - Notice of Intent to Recommend Conditional Award of Contract letters were sent to Alstom and Siemens, with the Recommendation of Contract Award to Siemens.

February 23, 2012 - Letter of Protest received from Alstom.

February 28, 2012 - RT sends Preliminary Response to Alstom and notifies Siemens of Alstom's Protest.

March 8, 2012 - RT meets with Alstom to discuss and attempt to resolve the protest, as called for in the protest procedure.

March 13, 2012 - Alstom submits letter to RT seeking further consideration of their Protest of the RT Staff decision and requesting a copy of the documents that RT relied upon to make its recommendation.

March 20, 2012 - RT agrees to release requested documents to Alstom. A copy of the same documents was simultaneously sent to Siemens, along with a copy of the Alstom Protest correspondence. All of these documents were transmitted to both Proposers on March 22, 2012.

March 23, 2012 - RT issues Request for Quote (RFQ) for consulting services to perform an independent investigation of Alstom's procurement protest.

April 5, 2012 - Alstom submits letter to RT in response to RT's letter of March 20, 2012 concerning the Protest filed on February 23, 2012. Letter requests reconsideration of multiple points of RT's scoring and evaluation and disputes RT's conclusions leading to RT's Recommendation of Siemens.

April 24, 2012 - RT notifies RVB+A of its selection to provide consulting services in investigation of Alstom's protest and issues Notice To Proceed.

April 26, 2012 - RT holds consulting services project kickoff meeting with Gary Hallman of RVB+A.

May 25, 2012 - Due date for RVB+A's summary report to RT.

Relevant Documents Reviewed

DOCUMENT	ISSUED BY	RELEVANT	RT'S	COMMENTS
RFP No. 2010043 + Addenda #'s 1,2&3, including Protest Procedures	Sacramento RT	All Sections	COMPLIANCE Thorough, complete and carefully documented	Complied with governing laws, ordinances, policies and procedures
Alstom Proposal submitted September 8, 2011	Alstom Transportion Inc. (sic)	All Sections	Thoroughly reviewed with documented comments	Alstom responded with a proposal that was more appropriate for a Lowest Cost Technically Compliant Procurement, not a Best Value Procurement
Siemens Proposal submitted September 8, 2011	Siemens Industry, Inc. Mobility Division	All Sections	Thoroughly reviewed with documented comments	Siemens Proposal was in conformance with a Best Value Procurement
RT summary of Proposal, negotiations and related materials from Alstom	Sacramento RT	All Sections	Thoroughly reviewed with documented comments	Alstom documentation is significantly less detailed than what was provided by Siemens. RT evaluators determined that it did not demonstrate a clear understanding of the details of the work necessary to fulfill the contract within RT's budgetary estimate
RT summary of Proposal, negotiations and related materials from Siemens	Sacramento RT	All Sections	Thoroughly reviewed with documented comments	RT's evaluators determined that Siemens' documentation demonstrated a clear and detailed understanding of the scope of work that is necessary to fulfill the contract within RT's budgetary estimate, particularly in comparison to the Alstom documentation
Final Offer submitted by Alstom on February 8, 2012	Alstom Transportation Inc.	All Sections	Thoroughly reviewed with documented comments	Alstom's Final Offer was not judged to have sufficiently enhanced the quality and clarity of their initial Proposal

9 of 16

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COMMENTS	Siemens' Final Offer was judged by RT evaluators to be providing much greater clarity than Alstom's Final Offer & Proposal to all elements of work that can reasonably be defined at this stage in the process.	All Committee Members provided complete scoring and related supported commentary	All Committee Members provided complete scoring and related supported commentary	Face-to-face meeting held with Alstom at RT offices on March 8, 2012 to discuss Protest	Provides legal basis for authorizing various types of Federally funded procurements, including Best Value	RT was satisfied that it had received the level of clarity and detail that was achievable with both Proposers within the Governance provided by the rules of this procurement	Established the minimum RT requirements for information to be provided by Proposers within RFP No. 2010043
RT'S COMPLIANCE	Thoroughly reviewed with documented comments	Thoroughly reviewed with documented comments	Thoroughly reviewed with documented comments	Reviewed and responded to in compliance with RT Procurement Policy Manual	Full Compliance	Full Compliance	Full Compliance
RELEVANT SECTIONS/ISSUES	All Sections	All Sections	All Sections	Letters dated February 23, March 13 & April 5, 2012	All Sections	Section 4.5.5.2, Request for Best and Final Offer	Section 1.203: Request for Proposals
ISSUED BY	Siemens Industry, Inc. Mobility Division	Sacramento RT Evaluation Committee members	Sacramento RT Evaluation Committee members	Alstom Transportation Inc.	Federal Transit Administration	Federal Transit Administration	Sacramento Regional Transit District
DOCUMENT	Final Offer submitted by Siemens on February 8, 2012	Initial Proposal Evaluation Forms	Final Proposal Evaluation Forms	Materials submitted in connection with Protest	FTA Circular 4220.1F	FTA Best Practices Procurement Manual, Section 4.5.5.2	Sacramento RT Administrative Code, Title 1 - Procurement Ordinance

10 of 16

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COMMENTS	Provided local agency basis for RT Board authorization of Negotiated Procurement through RFP No. 2010043	Provided Governance for RT staff administration of this protest procedure	Provided Governance for RT Staff administration of FTA Policies and RT Administrative Codes for RFP No. 2010043	Consulting firm LTK was retained to provide a technical specification as well as a price estimate prior to the issuance of RFP No. 2010043. Both Proposers submitted Final Offers within the range of LTK's price estimate	This document was not required under the Governance of Best Value procurement.
RT'S COMPLIANCE	Full Compliance	Full Compliance as of the date of preparation of this document (5-24- 2012)	Full Compliance	Full Compliance	This document was prepared by RT staff as an overview for internal use
RELEVANT SECTIONS/ISSUES	Section 1.406: Negotiated Procurement	Article VI: Bid/Proposal Protest Procedure	Chapter 8 - Competitive Proposal Contracts	Chapter 15 - Cost and Price Analysis	This was a review/recap of the entire procurement
ISSUED BY	Sacramento Regional Transit District	Sacramento Regional Transit District	Sacramento Regional Transit District	Sacramento Regional Transit District	Sacramento Regional Transit District
DOCUMENT	Sacramento RT Administrative Code, Title 1 - Procurement Ordinance	Sacramento RT Administrative Code, Title 1 - Procurement Ordinance	Sacramento RT Procurement Policy Manual issued December 30, 2009	Sacramento RT Procurement Policy Manual issued December 30, 2009	Procurement Review of UTDC Light Rail Vehicle Refurbishment RFP 2010043

11 of 16

Discussion

The UTDC LRV refurbishment program at UTA has been of benefit to RT in that the efforts in Utah provided a test bed for gaining valuable insights into what should be the most successful approach to follow for RT's own refurbishment program. It is clear from studying RT's RFP for this refurbishment that the lessons-learned at UTA were both understood and applied in the structuring of RFP No. 2010043.

UTA's refurbishment program was substantially complete by early 2010, to such an extent that RT staff was able to define their program plan secure in their knowledge of the direction that needed to be taken. Consulting firm LTK was then hired to inspect the UTDC cars at RT and to subsequently prepare the technical specification that was incorporated into the RFP.

LTK then used this knowledge, plus the lessons learned from the UTA program, to prepare the price estimate benchmark for RT's refurbishment. The vendor pricing proposals received by RT for this procurement are both within the LTK estimate of \$20,936,520.44 for this scope of work. This fact supports the validity of RT's approach.

FINAL OFFERS	Possible Points	Alstom	Siemens	Point Difference
Part 1 - The Firm	70	43.5	62.5	19.00
Part 2 - Referenced Projects	21	14.5	15.5	1.00
Part 3 - Project Staffing & Experience	84	26.5	79	52.50
Part 4 - Technical Submittal	245	159	206	47.00
Part 5 - Price Proposal	280	280	224	-56.00
Total:	700	523.5	587	63.50

The total score possible was 100 points from each evaluator, with 60 points available for the technical portion and 40 points maximum for the lowest total price.

As noted in the list of events provided in the Background section of this study, Alstom filed its Protest Letter on February 23, 2012. Multiple issues about RT's processes and conclusions were contained within that Protest Letter. A detailed reply to Alstom's letter of February 23rd was transmitted to Alstom from RT on February 28, 2012, over the signature of Mr. Mike Mattos, RT's Chief of Facilities and Business Support Services. Alstom's allegations were determined to lack merit by Mr. Mattos, but he offered Alstom a face-to-face meeting for further discussion in an attempt to resolve the protest.

Following the March 8th face-to-face meeting, Alstom submitted a Letter on March 13, 2012 supplementing its grounds for protest and requesting a copy of the documents that RT relied upon to make its recommendations. The specific points of Protest stated in Alstom's March 13th Letter are copied directly from that document and are shown in italics below, followed by this Study's response to each allegation as viewed through the language of the Regulations, Ordinances and Policies & Procedures that govern this Best Value procurement:

1.) RT's conclusion regarding Alstom's refurbishment experience was not based upon objective criteria;

Alstom does have more overall railcar refurbishment experience than Siemens. However, Siemens Proposal demonstrated a clearer understanding of the details of the work that will be necessary to deliver against this RFP. This clearer understanding by Siemens provided greater confidence to RT's evaluators that the price submitted by Siemens is reasonable and will be less subject to change orders resulting from the types of discoveries that typically occur in refurbishment projects. It should be noted that when UTA conducted its refurbishment of its UTDC cars, they opted to accept a much less detailed work scope definition from their Proposers than RT has for this RFP, and the UTA program experienced an overall cost increase of 55% above the initial bid/contract price. Such a percentage increase in the cost of RT's program would require overall funding of more than \$31 million dollars, versus the current LTK estimate of just over \$20 million.

2.) *RT's conclusions regarding potential deficiencies in Alstom's cababilities (sic) were incorrect;*

RT's Evaluation Committee did not conclude that Alstom lacks the corporate capabilities to perform refurbishment work. Under the Governance of this RFP, the Evaluation Committee must base its ratings upon what is presented to them within the confines of a response to the RFP for this project. Siemens Proposal demonstrated a stronger understanding of the work scope for this project, thereby providing greater detail in support of their proposed pricing than did Alstom.

3.) *RT's interpretation of the results of negotiations was capricious;*

Thorough review of the Proposals and Final Offers submitted by both Proposers and the documentation of RT's negotiations with both Alstom and Siemens does not support an allegation of capriciousness in RT's conclusions. Governance of this procurement specifically forbids RT from leading a Proposer to ways of improving their offer. Under the rules of Best Value, it is incumbent upon the Proposer to take the initiative to seek clarification of details not provided by the RFP. This pursuit of clarity was comparatively significant in favor of Siemens when reviewing the competing Proposals, Negotiation Documents and Final Offers.

4.) Results of the Application of the mathematical price calculation are questionable;

It must be noted that Alstom submitted this question before they had access to the pricing contained within Siemens Final Offer. Application of the price calculation formula contained within the RFP to Siemens Final Offer results in an adjustment of 3 points (out of a possible 700 total points). This adjustment does not alter the final scoring sufficiently to change the outcome of the Staff recommendation.

5.) The evaluation process, even if properly applied, led to a result that is not most advantageous;

This review supports the position that the evaluation process was applied in strict conformity to the Best Value Governance for this RFP and that RT benefitted from the Best Value approach. The challenges associated with seeking additional funds make it a necessity that RT select the contractor whose proposal provides the RT with the greatest confidence that it's pricing is based upon a clear understanding of the work that is to be done. Experience with refurbishments teaches that issues not evident at the time of a contract award will likely occur. In favoring the proposal submitted by Siemens, RT Staff is seeking to protect the Best Value for their available dollars by selecting the Proposer that has demonstrated the deepest understanding of the necessary work scope, thereby reducing the risk associated with the areas of work that will be subject to further discovery.

Following review of the documentation supplied to them by RT on March 22nd, Alstom submitted a letter on April 5th containing additional points of disagreement with RT's conclusions. A review of the items contained within Alstom's table of issues in this letter finds them to be relatively minor in terms of their financial impact upon the overall cost of this refurbishment program, and not significant enough to offset the difference in the scoring of the Technical Proposals submitted by the two competitors - even if all of the items were to somehow be found to be correctly and fairly claimable to the benefit of Alstom's score for their Final Offer. In fact, almost all of the items listed in Alstom's letter of April 5th are clarifications proposed by Siemens to generate cost savings to RT and are a direct reflection of Siemens detailed approach to gaining understanding and definition of the scope of work before submitting their Final Offer to RT. The choice by Alstom to not seek such additional clarifications and value enhancements within their submittals to RT was their own decision and, under the rules of Best Value as correctly administered by RT, the opportunity was fully open and available to them.

Findings

This study finds that in their administration of RFP No. 2010043, the Staff of RT has been thorough and fair in following procedures and practices in all areas. The study finds no areas of concern and believes that the Conclusions and Recommendations arrived at through the RFP process are sustainable and defendable under the rules governing this Best Value procurement.

TRANSPORT NORTH AMERICA ALSTOM Transportation Inc. 1001 Frontenac Road Naperville, IL 60563 Office: (630) 369-7525 Mobile: (630) 699-5011 e-mail: Jim Lindsay@transport.alstom.com

April 5, 2012

Via email to <u>mwilev@sacrt.com</u> and US Mail

Sacramento Regional Transit District Mr. Michael R. Wiley, General Manager/CEO 1400 29th Street (Box 2110), Sacramento, CA

Re: RFP 2010043, UTDC Light Rail Vehicle Refurbishment Notice of Intent to Recommend Conditional Award of Contract Response to RT Letter of March 20 Concerning Protest filed on February 28, 2012

Dear Mr. Wiley:

Thank you for your March 20th letter indicating you were in the process of deciding how to proceed following Alstom's protest. Thank you also for the documents that you made available to us on March 22, 2012. After careful review of those documents: specifically the evaluation forms and comments, and Siemens initial and BAFO proposals, Alstom would like to draw your attention to the following points, which we feel deserve further consideration.

ATTACHMENT A Item Number 5

ALSTOM

The Siemen's proposal confirms that like Alstom, Siemens has manufactured over 1,000 new LRVs. However, in contrast to Alstom's experience of having completed over 3,000 vehicle overhaul & modernizations, Siemens fails to reference, and we believe has yet to perform, one complete vehicle overhaul. Instead Siemens references only upgrades and replacements at a sub-system level, in four contracts valued in total at less than half of their price for the Sacramento RT LRV overhaul. It appears that the evaluation committee did not factor into their assessment the difference in scope and complexity associated with doing a complete vehicle overhaul, the commonality of skills required in overhauling any vehicle type, or the differences in those skills required to perform an overhaul to those required for a new build. In short the evaluation committee does not appear to have taken into account Siemens' lack of experience in the field of complete vehicle overhaul

In addition to Siemens price being 24% or \$4million higher than Alstom, Siemens has proposed transfer of scope which was included in Alstom's lower price offer, from Siemens to RT. It would appear that the evaluation committee has not taken into account in its scoring any of the cost or risk associated with the scope changes proposed by Siemens. In particular, the changes tabled below increase RT's total Mr. Michael Wiley

project cost by requiring RT to furnish materials and additional equipment, and to use RT's own labor to perform overhaul activities:

			and the second se
	RT RFP Section & page	Siemens BAFO page	Scope Transfer
6	Tech. Spec 1.4 page 227	Tech. Submittal p12	1.4.1 Siemens shifts responsibility for
			cleaning cars to RT
4	Tech. Spec 1.4 page 227	Tech. Submittal p13	1.4 RT to provide 1 set of lifting Jacks
	Tech. Spec 1.4 page 227	Tech. Submittal p14	1.4.7 Siemens can borrow parts from RT and requires 1 car to be stripped of parts
•	tech spec. 2.2.1 RFP	Tech. Submittal p16 &	Siemens plan to do paint on shop floor
	p235	BAFo action tracker p	(additional permits required, different
			choice of paint is hazardous - health risk
	T		
9	Tech spec. 3.2.7 p245	Tech. Submittal p24	RFp requires vertical stops to be paid by
		-	contractor, Siemens require RT to pay
•	Tech spec. 3.2.13 p247	Tech. Submittal p25	RT requires contractor to replace all broken
			axles, Siemens limit liability to 25%
			replacement, above which RT would be
			responsible for the extra cost
		The state of the s	
•	Tech spec. 6.2.2.1 p269	Tech. Submittal p36 &	RT requires contractor to replace all broken
		BAFo action tracker p10	floor heaters, Siemens limit liability to 25%
			replacement, above which RT would be
			responsible for the extra cost
9	Cdrls	BAFO tracker p9	RT agrees to allow Slemens not to deliver 27
	·		Cdris

For the higher price Siemens has offered, Siemens has also required commercial terms that would increase RT's risk compared to RFP requirements and Alstom's offer. Specifically, the terms are tabled below:

GC #	GC Provision	Risk Transfer noted from BAFO Tracker
<u> </u>	1	
GC17	Termination for	Siemens asked for and RT accepted to include payment for long lead
	convenience	time orders (includes Siemens internal order for APSE)
GC20	Indemnification	RT not released for any liability related to professional services
GC49	Performance Bond	RT accepts a parent company guarantee instead of a performance
		bond or letter of credit.
GC50	Warranty	RT agrees Warranty period limited as final acceptance shortened to
ĺ		start of revenue service (risk for non-performance transferred to RT
		if they start to use the cars)
SC22	Progress payments	Siemens requires that they propose new payment terms once
		awarded the contract (BAFO page 81 Section 16: project schedule,
		see also BAFO negotiation tracker page 129)

Finally, in addition to the higher price, reduced scope and increased risk that Siemens offers, the schedule Siemens requires means that the cars are going to be delivered 60 days later than the RFP required and later than Alstom committed to. The schedule shift will delay RT's ability to get the full complement of vehicles into service.

Both proposers are technically compliant as indicated by an invitation to participate in the BAFO. Additionally, the approach to performing the work that Siemens made in its proposal is similar to the approach Alstom suggested in its presentation on October 27th.

From the BAFO comments shared by the evaluation team, the most consistent and commonly shared explanation for why RT is willing to pay so much more for less, are that Siemens is a local company. This requirement, which is not stated anywhere in the RFP, nevertheless seemed to permeate the decision making.

Although RT may have budgeted \$21 million for the overhaul, we understand this project is currently only partially funded. Funding provided by the State to RT has been reduced. Although the project is approved for PTMISEA funding, there is still \$14 million to be secured. Contracting the overhaul at the price offered by Alstom rather than the price proposed by Siemens would enable the State of California to fund other deserving projects or reduce the state's financing requirements.

Alstom believes that, if RT's management were to consider these factors, it would reject the Staff's recommendation. If RT maintains its intent to award the contract to Siemens, Alstom reserves the right to supplement this letter, and the documentation provided to RT in connection with the protest, in order provide a detailed analysis of the materials RT provided on March 22. In accordance with instructions provided by Ms. Robison, Senior Procurement Analyst, this letter has been submitted electronically, with an original to follow by US mail.

Respectfully,

Jim Lindsav

Vice President and Customer Director

Via email: mnoble@sacrt.com srobison@sacrt.com



Sacramento Regional Transit District A Public Transit Agency and Equal Opportunity Employer

Mailing Address: P.O. Box 2110 Sacramento, CA 95812-2110

Administrative Office: 1400 29th Street Sacramento, CA 95816 (916) 321-2800 (29th St. Light Rail Station/ Bus 36,38,50E,57,68)

Light Rail Office: 2700 Academy Way Sacramento, CA 95815 (916) 648-8400

Human Resources Office: Employee Relations Office: 2830 G Street, 2nd Floor Sacramento, CA 95816 (916) 321-3800 (8us 30,31,34(57,68)

Public Transit Since 1973

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March 22, 2012

VIA UNITED PARCEL SERVICE

Jim Lindsay, Vice President and Customer Director Alstom Transportation, Inc. 1001 Frontenac Rd. Naperville, IL 60563

Dear Mr. Lindsay:

Subject: RFP No. 2010043, UTDC Light Rail Vehicle Refurbishment -Response to Alstom's Request for Further Consideration of <u>Protest filed on February 28, 2012 – Documents Released</u> Project File/CN: 2010043

As a follow-up to my correspondence to you dated March 20, 2012, RT is making available to you the documents that you requested on March 13, 2012. Specifically enclosed are: redacted evaluation forms and comments from the written proposals dated 9/16/11, redacted evaluation forms and comments from the Final Offers dated February 15, 2012. Also enclosed is Siemens' original proposal dated September 8, 2011 and Siemens' Final Offer dated February 7, 2012 (contains the Summary of Contract Negotiations, Exceptions to Commercial terms, and Siemens' final pricing).

Sincerely,

michael Wley

Michael R. Wiley General Manager/CEO

Enclosures

c: Mike Mattos, Chief of Facilities and Business Support Services Randall Miller, Director, Procurement Services Fernando Barcena, Manager, Contracts and DBE Colleen Elder, Materials Management Superintendent Sue Robison, Senior Procurement Analyst RT General Manager/CEO File RT Legal Department

Regional Transit

SACRAMENTO REGIONAL TRANSIT DISTRICT PROCUREMENT SERVICES/CONTRACT ADMINISTRATION PROPOSAL SUMMARY SHEET

Project Title:	UTDC Light Rail Vehicle Refurbishment
Project Number (CN):	2010043
RFP Release Date:	May 19, 2011
Proposal Due Date/Time:	September 8, 2011 at 2:00 p.m.
Project Manager:	Laura Espinoza, Maintenance Superintendent - Light Rail
Procurement Analyst:	Sue Robison, Senior Procurement Analyst
	Colleen Elder, Materials Management Superintendent

		1	2
		aiston	Siemens
	Letter of Transmittal	" " and a second	V.
V-1	Pricing Form (Separately Sealed)	V	Sec. 1
V-2	Bid Bond (Separately Sealed)	V	
V-2B	Irrevocable Letter of Credit (Separately Sealed)		
V-3	Receipt of Addenda		
V-4	Interests and Gratuities Certification	М	
V-5	Campaign Contribution Disclosure Form	N	V
V-6	Certification Regarding Organizational Conflicts		
V-7	Certification Regarding RT's Form of Agreement	VI-1/25	V-Vos
	Exceptions? (Yes/No)	y	
V-8	List of Principles and Officers		
V-9	FTA Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion		
V-10	FTA Certification of Restrictions on Lobbying	V	
V-11	Certification Regarding Clean Air Act and Federal Water Pollution Control Act	\mathbf{V}	V
V-12	FTA Buy America Certificate – Rolling Stock	$\mathcal{N}(A)$	∇ (A)
V-13	Certificate of Compliance with Drug & Alcohol		V
Subm	nittals Opened/Read By: Stule Robison	Date Opene	d: 7/8/11
	RT Witness:	Budget/Estimate	e: \$21m
Comme	ents: Alstom \$ 16, 200,000	opened on 91	116/11
	Siemens 19,994,688.90	Sue Re	suison

RFP Title: UTDC Light Rail Vehicle Refurbishment RFP No.: 2010043 Date: September 8, 2011 WRITTEN

WRITTEN EVALUATIONS

Possible				
Points		Alstom	Siemens	
10	Part 1 - The Firm	elected to not scor		
3	Part 2 - Referenced Projects			
12	Part 3 - Project Staffing & Experience			
35	Part 4 - Technical Submittal			
40	Part 5 - Price Proposal			
	Totals	0	0	
	Rank			

Possible				
Points		Alstom	Siemens	
10	Part 1 - The Firm	6	9	
3	Part 2 - Referenced Projects	1	3	
12	Part 3 - Project Staffing & Experience	4	11	
35	Part 4 - Technical Submittal	26	31	
40	Part 5 - Price Proposal	40	32	-
	Totals	77	86	
	Rank	2	1	Siemens

Possible Points		Alstom	Siemens	
10	Part 1 - The Firm	7	9	-
3	Part 2 - Referenced Projects	2	2	
12	Part 3 - Project Staffing & Experience	6	12	-
35	Part 4 - Technical Submittal	23	28	
40	Part 5 - Price Proposal	40	32	
	Totals	78	83	
	Rank	2	1	Siemens

Possible Points		Alstom	Siemens	
10	Part 1 - The Firm	9	9	
3	Part 2 - Referenced Projects	3	1	
12	Part 3 - Project Staffing & Experience	8	10	
35	Part 4 - Technical Submittal	28	30	
40	Part 5 - Price Proposal	40	32	
1	Totals	88	82	
	Rank	1	2	Alstom

Possible				
Points		Alstom	Siemens	
10	Part 1 - The Firm	7	9	
3	Part 2 - Referenced Projects	2	3	
12	Part 3 - Project Staffing & Experience	6	11	
35	Part 4 - Technical Submittal	22	28	
40	Part 5 - Price Proposal	40	32	
	Totals	77	83	
	Rank	2	1	Siemens

Possible			-r	
Points		Alstom	Siemens	
10	Part 1 - The Firm	7	8	
3	Part 2 - Referenced Projects	2	1	_
12	Part 3 - Project Staffing & Experience	<u> </u>	10	
35	Part 4 - Technical Submittal	24	26	-
40	Part 5 - Price Proposal	40	32	
	Totals	80	77	
	Rank	1	2	Alstom
Possible		· · · · ·		
Points		Alstom	Siemens	
10	Part 1 - The Firm	7	8.5	
3	Part 2 - Referenced Projects	3	2	
12	Part 3 - Project Staffing & Experience	3.5	11	
35	Part 4 - Technical Submittal	23.5	27.5	
40	Part 5 - Price Proposal	40	32	
	Totals	77	81	
	Rank	2	1	Siemens
Possible		,		
Points		Alstom	Siemens	
10	Part 1 - The Firm	8	9	
3	Part 2 - Referenced Projects	3 ·	2	
12	Part 3 - Project Staffing & Experience	6	12	
35	Part 4 - Technical Submittal	20	30	
40	Part 5 - Price Proposal	40	32	
	Totals	77	85	
	Rank	2	1	Siemens
	OVERALL TOTAL	554	577	
	AVE. WEIGHTED	79.14	82.43	
	AVE. RANK	1.25	1.00	

4 -Highest Ranked: Siemens Second Ranked: Alsom

The Evaluation Committee met on September 16, 2011 to discuss the proposals and turn in their scores. Sealed price proposals were opened and price scores added to the Evaluator's scores. The scores for the 2 firms are very close and both firms were determined to fall within the competitive range. The group decided it would be futile to hold oral presentations and that time would be better spent on on entering directly into negotiations with both firms.

Prepared By: Sue Robison Procurement Services/Contract Administration

WRITTEN PROPOSAL EVALUATION COMPILED FROM THE SELECTION COMMITTEE'S COMMENTS

SIEMENS

Strengths

Very well thought out proposal Very thorough, great attention to detail Sole experience is in light rail

Part 1A

The firm manufactures/retrofits LRV's and some heavy rail cars Has financial capacity

Part 2 Subsystem suppliers – adequate experience and performance stated

Referenced projects – meet all requirements and stated that they were completed on time/on budget/ no claims.

Part 3 strong management team with extensive experience and educational background. Tech advisor Mr. Eichten is a former VTA employee during the time the UTDC vehicles were there. Part 4 – well thought out approach, encompassing virtually all aspects (major/minor) of the project and processed to accomplish them

Detailed description for all aspects of the refurbishment. How the work is understood to be accomplished and identifies areas of potential delay (lack of spare parts, etc)

Very well thought out approach to the project with detailed data addressing all aspects and requirements of the ITB. Backed by a strong PM team and local staff/engineering resources. This is a strong proposal.

Weaknesses

Price is higher

ALSTOM

<u>Strengths</u> Sufficient financial capacity

<u>Weaknesses</u>

Part 1A

Heavy rail manufacturing/maintenance/post sale support - no description of background/experience Proposal lacked detailed information Referenced projects are all heavy rail or subway vehicles No references to any LRV work of this scope/extent PM has not ever managed a staff of diverse professionals for a project of this magnitude Overall staffing seems to be marginal in education or relevant experience Detailed information on experience on resumes isn't there Very basic approach to the work APS - No reference to any other installations of this type for vehicle system loads nor for LVPS systems Project schedule - submittal is very global snapshot, lacking in details for major activities like truck rebuild, etc. Overall vague submittal lacking in depth of detail or specifics Many unanswered questions Fails to adequately address requirements of the spec.

PM team is light on experience or education for a project of this complexity. No degrees in electrical, mechanical engineering

UTDC LIGHT RAIL VEHICLE REFURBISHMENT

RFP No.: 2010043

PROPOSAL EVALUATION FORM

Contractor's Name: ALSTOM

		EVALUATION CRITERIA	Maximum possible score	SCORE
Letter	of T	ransmittal	Compliant/Non- Compliant	<u> </u>
Part 1	- Th	e Firm; Major Subsystem Subcontractors:	10 points	
	А.	The Firm Experience Financial Capacity	5 points	3
	В.	Subsystem Suppliers	5 points	3
Part 2	- Ref	erenced Projects:	3 points	
Part 3	- Pro	ject Staffing and Experience:	12 points	
	A.	Staffing Plan and Resumes	6 points	2
	В.	Project Manager	6 points	2
Part 4 -	Tec	hnical Submittal:	35 points	
	A.	Approach to Accomplish the Work	9 points	4
	В.	Quality Control	5 points	4
	C.	Compliance with Technical Specifications	8 points	8
	D.	Relevant Design and Manufacturing of Subsystems - New Subassembly Components:		
		Auxiliary Power System	3 points	
		Communications System	3 points	2
		Event Recorder System	2 points	2
	E.	Project Schedule	5 points	5
Sub- OTAL		QUALIFICATIONS AND TECHNICAL SCORE	60 points	37

			771,428
	EVALUATION CRITERIA	Maximum possible score	SCORE
Part 5 -	Price Proposal:		9 8 1 90 <u>1071777777777777777777777777777777777</u>
Fo	orm V-1 - Proposal Price (separately sealed envelope) Proposer's Score = <u>Lowest Total Price</u> X 40 Proposer's Total Price (including RT-determined costs for off-site work)		40
Sub- Total	PRICE SCORE	40 points	
Fo	oposal Security (separately sealed envelope) rm V-2A – Bid Bond, or rm V-2B - Irrevocable Letter of Credit	Compliant/ Non-Compliant	<u> </u>
Fo	rm V-3 - Receipt of Addenda	Compliant/ Non-Compliant	
Fo	rm V-4 - Interests and Gratuities Certification	Compliant/ Non-Compliant	\checkmark
Fo	rm V-5 - Campaign Contribution Disclosure Form	Compliant/ Non-Compliant	\checkmark
Fo	rm V-6 - Certification Regarding Organizational Conflicts	Compliant/ Non-Compliant	
Foi	rm V-7 - Certification Regarding RT's Form of Agreement	Compliant/ Non-Compliant	
	rm V-8 - List of Principals and Officers	Compliant/ Non-Compliant	\checkmark
	m V-9 - FTA Certification Regarding Debarment, spension, Ineligibility and Voluntary Exclusion	Compliant/ Non-Compliant	\sim
	m V-10 - FTA Certification of Restrictions on Lobbying	Compliant/ Non-Compliant	\checkmark
	m V-11 - FTA Certification Regarding Clean Air Act and deral Water Pollution Control Act	Compliant/ Non-Compliant	\checkmark
For	m V-12 - FTA Buy America Certificate	Compliant/ Non-Compliant	\checkmark
	m V-13 - Certificate of Compliance With Drug and ohol Testing and Drug-Free Workplace Act	Compliant/ Non-Compliant	V
OTAL	TOTAL EVALUATION SCORE	100 points	77

Scoring Range

Average Below Average Unsatisfactory Excellent Good 10 0 3 7 Rating Performed By: (Printed Name) 9/16/11 (Date) jignature)

Strengths Weaknesses: ALSTOM PART 1 A - HEAVY LAIL MANNERCICKING, MAINTENANCE / POST SALE SUPPORT - NO
DESCRIPTION OF 34CHGADEN EXPERIMICE RELEVANT TO THE REFLUBBLICATION - PROTECT.
SUFFICIENT FINANCIAL CURRENTY.
13 - PROTOAL LACKED DETAILED WAS AS PENDED BUT APPENDS THE
SUB'S Alf. Adjacentery Addallices.
PART 2 - REFERENCE) PROJECTS ARE ALL HEAVY ZAL OR SUBWAY (MARRIED PAR)
VEALLAS. NO REFELENCES TO ANY LRU WOLK OF THIS SCOLE/EXTENT - ADAIN ALL
REDUCED INFO NOT PLOVIDED - CONTRACT & MILOURS STALL FROMMA, SUB SYSTEM QUINTITIES,
PROFECT QUALITY NOT INCLUDED.
PARTS - STATEDO - PM NAS NOT EVER MUNIMED & STAFF OF DIVERSE
PROFESSIONALS BE ARREST OF THE APPLICATE (NO DEGEE) OVERAL STAFFING
SEEMS TO BE MALLINAL IN EDUCATIONS OR HIMME EXPELIENCE (BACKLEROUND.
DETAILED INFO OF EXP. ON REJUMES LOUT TIERE.
PART 4-
A. APPROACH - VEILY BLEIC WEUT DEPATILED NFORMATION - 12 TRUCK
DUASSEMBLY/NDT NS/GOON/REPRESENDEN & NOT ADDRESSED IN NALIATUR.
3- QC
C- PROTOGEN STATES COMPLIANCE WIALL ASPECTS OF THE SPEC.
D - AUX PUR SYSTEM - ONLY PROVIDED HIS INVELTEL IST HVAC SYSTEMS
VENTICUS SUSTAIN LOTAL AND FOR LUTS SYLTEMS.

UTDC Light Rail	Vehicle	Refurbishment
2010043/5.19.20	11	

-	sses: ALSTOM SYSTEM - SAME SUB "INTERALIA" AS ONTER PROP	orel
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SWATCHOT	" LACKING IN DETAILS FOR MATTER ACTIVITIES LIKE	, n
TRUCK	RESULD STC.	
OVERAL	- VERY VAGNE SUBMITTAL- LACKING IN DEPORDE	
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UTDC LIGHT RAIL VEHICLE REFURBISHMENT

RFP No.: 2010043

PROPOSAL EVALUATION FORM

Contractor's Name: SIEMENS INDUSTRY, INC.

		EVALUATION CRITERIA	Maximum possible score	SCORE
Letter o	of Ti	ransmittal	Compliant/Non- Compliant	
Part 1	- Th	e Firm; Major Subsystem Subcontractors:	10 points	
	А.	The Firm Experience Financial Capacity	5 points	5
	В.	Subsystem Suppliers	5 points	4
Part 2 -	Ref	erenced Projects:	3 points	3
Part 3 -	Pro	ject Staffing and Experience:	12 points	
	А.	Staffing Plan and Resumes	6 points	5
-	В.	Project Manager	6 points	6
Part 4 -	Тес	hnical Submittal:	35 points	
	A.	Approach to Accomplish the Work	9 points	8
	В.	Quality Control	5 points	4
	C.	Compliance with Technical Specifications	8 points	 8
	D.	Relevant Design and Manufacturing of Subsystems - New Subassembly Components:		
		Auxiliary Power System	3 points	2
		Communications System	3 points	2
		Event Recorder System	2 points	2
	E.	Project Schedule	5 points	5
Sub- FOTAL		QUALIFICATIONS AND TECHNICAL SCORE	60 points	54

			12.128
			952,128
EV/	LUATION CRITERIA	Maximum possible score	SCORE
art 5 - Price Propo	sal:		
Proposer's	osal Price (separately sealed envelope) Score = <u>Lowest Total Price</u> X 40 Proposer's Total Price (including <u>RT-determined costs for off-site work</u>		32
Sub- Total	PRICE SCORE	40 points	
Form V-2A – Bic	y (separately sealed envelope) l Bond, or vocable Letter of Credit	Compliant/ Non-Compliant	
Form V-3 - Rece	ipt of Addenda	Compliant/ Non-Compliant	\checkmark
Form V-4 - Intere	ests and Gratuities Certification	Compliant/ Non-Compliant	
Form V-5 - Cam	paign Contribution Disclosure Form	Compliant/ Non-Compliant	\checkmark
Form V-6 - Certi	ication Regarding Organizational Conflicts	Compliant/ Non-Compliant	\checkmark
Form V-7 - Certil	ication Regarding RT's Form of Agreement	Compliant	\checkmark
Form V-8 - List o	f Principals and Officers	Compliant/ Non-Compliant	\checkmark
	Certification Regarding Debarment, igibility and Voluntary Exclusion	Compliant/ Non-Compliant	\checkmark
	Certification of Restrictions on Lobbying	Compliant/ Non-Compliant	\checkmark
	Certification Regarding Clean Air Act and Induition Control Act	Compliant/ Non-Compliant	\checkmark
·····	Buy America Certificate	Compliant/ Non-Compliant	\checkmark
	ficate of Compliance With Drug and nd Drug-Free Workplace Act	Compliant/ Non-Compliant	\checkmark
OTAL T	OTAL EVALUATION SCORE	100 points	86

Strengths/Weaknesses: SIEMENS INDUSTRY, INC.

	A - THE FILM - MNOUFHLACEDES/RETROFITS LAV'S & Some HEAVY
	PAIL CAFS.
	FINANCIAL CAPACITY -
	B SUBSYSTEM BUPPLIERS - ASSTUDIE SUPERience & Petrodumice sign
PA	ET2 - REFAILINCED PROTECTS - MELT ALL REPUBLICATIONS & STATED PLAT
	Dier well completed on TIME/IN BUDGET/ NO CLAIMS
P	AT 3 - STRANGE MGT TEAM W EXTENSIVE EXPERIENCE & EDUCATOREL
	State County, TECH. ADVISOR ME CICHEN & & Followed VTA EMP
	DUENSE THE TIME THE UTDE VERTICES RAW THERE
PA	RT-4
	A - WELL TITULAT ONT APPLONGH, ENCOMMASSING VIRIUALLY ALL
	ASPECTS (MAJOR/MINOR) OF THE PROFECT & PROCESSES TO AccompLis
	TTHEM.
	B. QC
	C - DETAILED DESCRIPTION FOR ALL ASPECTS OF THE REFUBICA
	How The work is UNDERSTOOD TO JE tecomplisited & IDENTIFIES
	Aders of POTENTIAL DEVA-1 (LACK OF SPACE PAPES, STL)

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011 Strengths/Weaknesses: SIEMENS INDUSTRY, INC.

VERY WELL TROUGHTOUT APPROVED TO THE PROJECT W DETAILED DATA AND ASSIME ALL ASPECTS & REQUIREMENTS OF The ITB, BALLED BY A STAND PON TEAM \$ 120CAL SMAFF/ Parlinks PELENDICES THIS IS A STRONG PROVOSAL

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

PROPOSAL REQUIREMENTS

UTDC LIGHT RAIL VEHICLE REFURBISHMENT

RFP No.: 2010043

PROPOSAL EVALUATION FORM

Contractor's Name: ALSTOM

6500

		EVALUATION CRITERIA	Maximum possible score	SCORE
Letter of Transmittal		Compliant/Non- Compliant		
Part 1	- Th	e Firm; Major Subsystem Subcontractors:	10 points	
	А.	The Firm Experience Financial Capacity	5 points	4
	В.	Subsystem Suppliers	5 points	3
Part 2 -	Ref	erenced Projects:	3 points	2
Part 3 -	Pro	ject Staffing and Experience:	12 points	
	А.	Staffing Plan and Resumes	6 points	4
	В.	Project Manager	6 points	2
Part 4 -	Тес	hnical Submittal:	35 points	
	А.	Approach to Accomplish the Work	9 points	4
	В.	Quality Control	5 points	4
	C.	Compliance with Technical Specifications	8 points	1
	D.	Relevant Design and Manufacturing of Subsystems - New Subassembly Components:		
		Auxiliary Power System	3 points	1
		Communications System	3 points	2
		Event Recorder System	2 points	1
	E.	Project Schedule	5 points	4
Sub- TOTAL		QUALIFICATIONS AND TECHNICAL SCORE	60 points	38

	EVALUATION CRITERIA	Maximum possible score	SCORE
Part 5	- Price Proposal:		n in an
F	orm V-1 - Proposal Price (separately sealed envelope) Proposer's Score = <u>Lowest Total Price</u> X 40 Proposer's Total Price (including RT-determined costs for off-site work)		40
Sub- Total	PRICE SCORE	40 points	4
F	roposal Security (separately sealed envelope) orm V-2A – Bid Bond, or orm V-2B - Irrevocable Letter of Credit	Compliant/ Non-Compliant	v
F	orm V-3 - Receipt of Addenda	Compliant/ Non-Compliant	
F	orm V-4 - Interests and Gratuities Certification	Compliant/ Non-Compliant	Carron Marine
Fo	orm V-5 - Campaign Contribution Disclosure Form	Compliant/ Non-Compliant	-
Fo	orm V-6 - Certification Regarding Organizational Conflicts	Compliant/ Non-Compliant	
Fo	orm V-7 - Certification Regarding RT's Form of Agreement	Compliant/ Non-Compliant	· · · · ·
Fo	orm V-8 - List of Principals and Officers	Compliant/ Non-Compliant	*******
	orm V-9 - FTA Certification Regarding Debarment, uspension, Ineligibility and Voluntary Exclusion	Compliant/ Non-Compliant	and the second se
Fo	orm V-10 - FTA Certification of Restrictions on Lobbying	Compliant/ Non-Compliant	~
	orm V-11 - FTA Certification Regarding Clean Air Act and ederal Water Pollution Control Act	Compliant/ Non-Compliant	ere.
Fc	orm V-12 - FTA Buy America Certificate	Compliant/ Non-Compliant	Parameter .
	orm V-13 - Certificate of Compliance With Drug and cohol Testing and Drug-Free Workplace Act	Compliant/ Non-Compliant	/
OTAL	TOTAL EVALUATION SCORE	100 points	78

Scoring Range

 Average
 Below Average
 Unsatisfactory

 5
 3
 0
 Excellent 10 Good 7 Rating Performed By: (Printed Name) 9 6 (Date) Signature

Strengths/Weaknesses: ALSTOM

for APS, Lanka Alstom Lanka oroposes experience al complete APS system. include not This raise about reliability and support. Also states there is likely to charge, which paises <u>asse/</u> plant CONCERNS company's stability and capacity. about - All of Alstoms referenced projects were completed on time. referenced project most similar to ours -The one is still in design phase, no actual work completes for wheel/axle work. Not familiar identified PAMCO more inte. PAMCO, nead 1K disposal of battering 5.1) for does , Alstom Spec colls equip. to disp not list the batteries with the other - HVAC (60 Alstom states with will he interchangeable existing type 7 SRC". It appears with That The interd replace rather than rebuild existing whits Procedure Spec requ for Burn In (1,3)5cbmittal men 10 geogeneek microphone. Spec calls for in-clash Alstom Droposes Spec callsfor exterior side Lest, signs, -(8.2.7, no ment proposal signs in

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011 Strengths/Weaknesses: ALSTOM

- Alstern dain -The-trainer trenna RYONDBES Alstom does not provide much intorn the work plan from Noperville - Alstem's warranty will be supported locad ion - Did not provide much information on spec sections. Most simplet states " ... shall be comption into provided with requirements Manager a few month's Project only experience as a has since 7/11), no college degice Manger project identifie engineer not Site

PROPOSAL REQUIREMENTS

1

UTDC LIGHT RAIL VEHICLE REFURBISHMENT

RFP No.: 2010043

PROPOSAL EVALUATION FORM

Contractor's Name: SIEMENS INDUSTRY, INC.

gul 10

		EVALUATION CRITERIA	Maximum possible score	SCORE
Letter of Transmittal			Compliant/Non- Compliant	
Part 1	- Th	e Firm; Major Subsystem Subcontractors:	10 points	
	А.	The Firm Experience Financial Capacity	5 points	5
	В.	Subsystem Suppliers Supplier Experience Manufacturing Capability	5 points	4
Part 2 -	Ref	erenced Projects:	3 points	2
Part 3 -	Рго	ject Staffing and Experience:	12 points	
	Α.	Staffing Plan and Resumes	6 points	6
	В.	Project Manager	6 points	6
Part 4 -	Тес	hnical Submittal:	35 points	
	А.	Approach to Accomplish the Work	9 points	8
	В.	Quality Contro!	5 points	4
	C.	Compliance with Technical Specifications	8 points	
	D.	Relevant Design and Manufacturing of Subsystems - New Subassembly Components:		
		Auxiliary Power System	3 points	2
		Communications System	3 points	2
		Event Recorder System	2 points	
	E,	Project Schedule	5 points	4
Sub- OTAL		QUALIFICATIONS AND TECHNICAL SCORE	60 points	51

	EVALUATION CRITERIA	Maximum possible score	SCORE
Part 5	- Price Proposal:		
F	orm V-1 - Proposal Price (separately sealed envelope) Proposer's Score = <u>Lowest Total Price</u> X 40 Proposer's Total Price (including RT-determined costs for off-site work)		32
Sub- Total	PRICE SCORE	40 points	
Fo	roposal Security (separately sealed envelope) orm V-2A – Bid Bond, or orm V-2B - Irrevocable Letter of Credit	Compliant/ Non-Compliant	/
Fo	orm V-3 - Receipt of Addenda	Compliant/ Non-Compliant	/
Fo	Form V-4 - Interests and Gratuities Certification		/
Fc	Form V-5 - Campaign Contribution Disclosure Form		/
Fo	Form V-6 - Certification Regarding Organizational Conflicts		/
Fo	rm V-7 - Certification Regarding RT's Form of Agreement	Non-Compliant Compliant/ Non-Compliant	~
Fo	rm V-8 - List of Principals and Officers	Compliant/ Non-Compliant	
	rm V-9 - FTA Certification Regarding Debarment, spension, Ineligibility and Voluntary Exclusion	Compliant/ Non-Compliant	
	rm V-10 - FTA Certification of Restrictions on Lobbying	Compliant/ Non-Compliant	******
	rm V-11 - FTA Certification Regarding Clean Air Act and deral Water Pollution Control Act	Compliant/ Non-Compliant	1
Fo	Form V-12 - FTA Buy America Certificate		2
	rm V-13 - Certificate of Compliance With Drug and whol Testing and Drug-Free Workplace Act	Non-Compliant Compliant/ Non-Compliant	/
OTAL	TOTAL EVALUATION SCORE	100 points	83

51

Scoring Range

Average 5 Excellent 10 Below Average Unsatisfactory 3 0 Good 7 Rating Performed By: Printed Name) 91 /*/ (/ /* (Date) Signatu

Strengths/Weaknesses: SIEMENS INDUSTRY, INC.

well rounded personnel has relevent experience, education. experti work plan is well thought out, although it assumptions makes Signens makes assumption that they can borrow parts from other LRV's. This may be very limited, RT may of on what is parts they want - Siemens assumes sufficient work space Company how rebuild, but doesn't define much I month lag - do not like in completing last Cay train which 1chap were browed. mart3 - Siemens proposed appeneek micraphone for flush mount Siemens assumes they can do some The perint, has in Only very ninor "touch up Can occur in shop (1.4.7). The shop. All other printing requires. book MANA - Warranty support will be loca returbist fores not include a romplete Dremen's experience job similar have done "partials" to UTDC scope, but include all relements such 23 truck3

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

PROPOSAL REQUIREMENTS

UTDC LIGHT RAIL VEHICLE REFURBISHMENT

RFP No.: 2010043

PROPOSAL EVALUATION FORM

Contractor's Name: ALSTOM

		EVALUATION CRITERIA	Maximum possible score	SCORE
Letter	Letter of Transmittal			
Part 1	- Th	e Firm; Major Subsystem Subcontractors:	10 points	
	A.	The Firm Experience Financial Capacity	5 points	5
	В.	Subsystem Suppliers Supplier Experience Manufacturing Capability	5 points	4
Part 2 ·	Part 2 - Referenced Projects:		3 points	3
Part 3 -	Pro	ject Staffing and Experience:	12 points	
	Α.	Staffing Plan and Resumes	6 points	4
	В.	Project Manager	6 points	4
Part 4 -	Тес	hnical Submittal:	35 points	································
	Α.	Approach to Accomplish the Work	9 points	6
	В.	Quality Contro!	5 points	5
	C.	Compliance with Technical Specifications	8 points	6
	D.	Relevant Design and Manufacturing of Subsystems - New Subassembly Components:	i	. <u></u>
		Auxiliary Power System	3 points	2
		Communications System	3 points	3
		Event Recorder System	2 points	37
	E.	Project Schedule	5 points	
Sub- OTAL		QUALIFICATIONS AND TECHNICAL SCORE	60 points	48

PAGE 25

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

PROPOSAL REQUIREMENTS

	EVALUATION CRITERIA	Maximum possible score	SCORE
Part 5	- Price Proposal:		
F	orm V-1 - Proposal Price (separately sealed envelope) Proposer's Score = <u>Lowest Total Price</u> X 40 Proposer's Total Price (including RT-determined costs for off-site work)		40
Sub- Total	PRICE SCORE	40 points	
Fc	roposal Security (separately sealed envelope) orm V-2A – Bid Bond, or orm V-2B - Irrevocable Letter of Credit	Compliant/ Non-Compliant	nere
Fc	orm V-3 - Receipt of Addenda	Compliant/ Non-Compliant	C
Fo	Form V-4 - Interests and Gratuities Certification		C
Fo	Form V-5 - Campaign Contribution Disclosure Form		Ċ
Fo	Form V-6 - Certification Regarding Organizational Conflicts		4
Fo	Form V-7 - Certification Regarding RT's Form of Agreement		С
Fo	Form V-8 - List of Principals and Officers		C
	Form V-9 - FTA Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion		C
Fo	Form V-10 - FTA Certification of Restrictions on Lobbying		C
Form V-11 - FTA Certification Regarding Clean Air Act and Federal Water Pollution Control Act		Compliant/ Non-Compliant	C
	rm V-12 - FTA Buy America Certificate	Compliant/ Non-Compliant	Current
	rm V-13 - Certificate of Compliance With Drug and cohol Testing and Drug-Free Workplace Act	Compliant/ Non-Compliant	C
OTAL	TOTAL EVALUATION SCORE	100 points	88

Scoring Range

Excellent	Good	Ауегаденные	Below Average	Unsatisfactory
10	7	5	3	0

Rating Performed By:

(Printed Name)

(Date)

(Signature)

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

PROPOSAL REQUIREMENTS

PAGE 26

UTDC LIGHT RAIL VEHICLE REFURBISHMENT

RFP No.: 2010043

PROPOSAL EVALUATION FORM 1 . 222

Contractor's Name: _SIEMENS INDUSTRY, INC.

		EVALUATION CRITERIA	Maximum possible score	SCORE
Letter of Transmittal			Compliant/Non- Compliant	
Part 1 -	Th	e Firm; Major Subsystem Subcontractors:	10 points	
	А.	The Firm Experience Financial Capacity	5 points	5
	B.	Subsystem Suppliers Supplier Experience Manufacturing Capability	5 points	4
Part 2 - I	Ref	erenced Projects:	3 points	1
Part 3 - I	Pro	ject Staffing and Experience:	12 points	
	Α.	Staffing Plan and Resumes	6 points	5
	В.	Project Manager	6 points	5
Part 4 - 1	Гес	hnical Submittal:	35 points	
	A.	Approach to Accomplish the Work	9 points	8
	B.	Quality Control	5 points	5
	C.	Compliance with Technical Specifications	8 points	5
	D.	Relevant Design and Manufacturing of Subsystems - New Subassembly Components:		
		Auxiliary Power System	3 points	3
		Communications System	3 points	2
		Event Recorder System	2 points	335
	Е.	Project Schedule	5 points	5
Sub- OTAL		QUALIFICATIONS AND TECHNICAL SCORE	60 points	50



UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

PAGE 25

		Maximum possible score	SCORE
Part 5 ·	- Price Proposal:		
· ·	orm V-1 - Proposal Price (separately sealed envelope) Proposer's Score = <u>Lowest Total Price</u> X 40 Proposer's Total Price (including RT-determined costs for off-site work)	40 points	32
Sub- Total	PRICE SCORE	40 points	
Fo	oposal Security (separately sealed envelope) rm V-2A – Bid Bond, or rm V-2B - Irrevocable Letter of Credit	Compliant/ Non-Compliant	NONE
Fo	rm V-3 - Receipt of Addenda	Compliant/ Non-Compliant	C
Fo	rm V-4 - Interests and Gratuities Certification	Compliant/ Non-Compliant	C
Fo	rm V-5 - Campaign Contribution Disclosure Form	Compliant/ Non-Compliant	C
Foi	rm V-6 - Certification Regarding Organizational Conflicts	Compliant/ Non-Compliant	C
For	rm V-7 - Certification Regarding RT's Form of Agreement	Compliant/ Non-Compliant	С
	m V-8 - List of Principals and Officers	Compliant/ Non-Compliant	С
	m V-9 - FTA Certification Regarding Debarment, spension, Ineligibility and Voluntary Exclusion	Compliant/ Non-Compliant	С
	m V-10 - FTA Certification of Restrictions on Lobbying	Compliant/ Non-Compliant	C
For Fec	m V-11 - FTA Certification Regarding Clean Air Act and leral Water Pollution Control Act	Compliant/ Non-Compliant	C.
	m V-12 - FTA Buy America Certificate	Compliant/ Non-Compliant	C
	m V-13 - Certificate of Compliance With Drug and ohol Testing and Drug-Free Workplace Act	Compliant/ Non-Compliant	NOT ESTABLISHE
DTAL	TOTAL EVALUATION SCORE	100 points	83-

Scoring Range

Excellent	Good	Average	Below Average	Unsatisfactory
10	7	5	3	0

Rating Performed By:

el³/

(Printed Name)

(Date)

(Signature)

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

Proposal Requirment R F.P- 20100 43 ps. 10-20 + Tech specs 10, Part 2 A-48 FIRM. (S SH b. Ster 5 Pa.T 2. 3 Ret. projet. 3) Part-1-- ALSTOM SUB-SUP. ALL HAVE PLANT/ FACILITIES IN THE USA. - SIEMES. HAS ONLY THE COMM. SYS. SUPPLIER. HOW WILL THEY MEET BUY A MERICA? NOT DETAILED PART-2. ALSTOM HAS SEVERA MATOR O DERAMUC. Poro JECTS. HAS CURRENTY THI PROJECTS SIEMENS - NO MATOR D.H. Projects + HO CURAENT PROSES LISTER

PART 3 STAFF STAFFINE PLANG Project MER, To -ALSTOM. DID NOT CIST THE TO OF TIME EACH. PERSON WILL BE ASSIGNED TO THE PROJECT. - SIEMERS - HAS A WELL PREPAIRE PRESENTATION + DID Fre Luper % string PER BERSON, SIEMERS 4450 PROVIDED A GOOD DISCRIPTION OF 1 HEIR. PROJECT INANAGER. 6

PANT. - terefisues million APPROACH - Ac. W. K.g. QC S Com, Techspe. 8 5 5 Self. Supplier 2 N. p.s.: (3) Coin. 3 22 EUK Q, - Autor the deed of -120 del Velite port Plan, 2 T - AS NOT PRESSANTED LY E ERODOSALE, ALTING I.P. THEIR UR-CONT the Comp. Returned Jorer bank - and an Submitted a Verine H. Ra Surb. Man. They was an ME USE OF TWO SETS OF 1-TING JACKS. OALY ONE 1-AJ PRO POSSER BY PET. SALEMENS DIS LOT 1. P. The supports FOR. R/O

PART. 4. SIEMENS- HEAS A GOOD DISCRIPTICE PLAN TO Decomplish the work. Q.C. BOTH SUBMIFTON A PEAR TECH SPESS ALSTOME (-) General compliance with no + Discription- states that they will comply with all spees. (-) Failed to list all submitter in Section's 508. -SIZMENI (+) Discriptive Compliaire to specs. (-) Failed to include some/several ETEMS ON TECH SPECS THOUGHOUT their tech spece Discriptions It Appears to me that Siemens. is proposing changes to our specs & Going with what they have or propose-

PAN 45 (5) A Project schelp. SIEMERS- HAD A DECRIPTION of the schedule and noted differences. +lie R 纐

J. J. J. J. J. J. J. K. K. K. K. K. K. K. K. K. dulduld SIEMERS. 2.2.1 Rt. states to use Dupont FMRON 200 5- propose their paint System 2.2.4. Rain butters. Rt- states to Replace with. SS Gatters S - Propose. New like material to be used 5-1-No menting of Disposel of M/P, LAPS & Batteries 6.2.2.1. S- not mentioned-O Install - Automatic high-limit. thermostat. @ specifed location 13 Access to heater elementer mentions in 6-2.5 Siemons Specs 8-1 S- No mention of disposed of old. equipment

12 - 1 - 15-No mention of documentation in co-Rom No Mention of 3 Pty's (Laptop computers, XP on later) 12:2.10 St no mention of 12minth on-site support after Completson Section 13 on Slemens Spec proposal is completely different from RT spec. I believe that it is their GAXQC PLAM I used this section. For Rating on PART-4-B-& ERIC Will have to determin it or sect 13 Materials + workmanship is covered tin compliance in their QA/QC plan.

RFP No.: 2010043

1.20

PROPOSAL EVALUATION FORM

Contractor's Name: ALSTOM

. J

		EVALUATION CRITERIA	Maximum possible score	SCORE
Letter	of Ti	ransmittal	Compliant/Non- Compliant	<u> </u>
Part 1	- Th	e Firm; Major Subsystem Subcontractors:	10 points	
	А.	The Firm Experience Financial Capacity	5 points	
	В.	Subsystem Suppliers	5 points	3
Part 2	- Ref	erenced Projects:	3 points	2
Part 3	- Pro	ject Staffing and Experience:	12 points	
	Α.	Staffing Plan and Resumes	6 points	Ş
	В.	Project Manager	6 points	3
Part 4 -	Tec	hnical Submittal:	35 points	
	А.	Approach to Accomplish the Work	9 points	6
	В.	Quality Contro!	5 points	3
	C.	Compliance with Technical Specifications	8 points	4
	D.	Relevant Design and Manufacturing of Subsystems - New Subassembly Components:		
		Auxiliary Power System	3 points	2
		Communications System	3 points	2
		Event Recorder System	2 points	2
	Е.	Project Schedule	5 points	3
Sub- OTAL		QUALIFICATIONS AND TECHNICAL SCORE	60 points	37

	EVALUATION CRITERIA	Maximum possible score	SCORE.
Part 5	5 - Price Proposal:		
	Form V-1 - Proposal Price (separately sealed envelope) Proposer's Score = <u>Lowest Total Price</u> X 40 Proposer's Total Price (including <u>RT-determined costs for off-site work</u>)		40
Sub- Tota		40 points	
F	Proposal Security (separately sealed envelope) Form V-2A – Bid Bond, or Form V-2B - Irrevocable Letter of Credit	Compliant/ Non-Compliant	
F	Form V-3 - Receipt of Addenda	Compliant/ Non-Compliant	
F	orm V-4 - Interests and Gratuities Certification	Compliant/ Non-Compliant	
F	orm V-5 - Campaign Contribution Disclosure Form	Compliant/ Non-Compliant	
F	orm V-6 - Certification Regarding Organizational Conflicts	Compliant/ Non-Compliant	
F	orm V-7 - Certification Regarding RT's Form of Agreement	Compliant/ Non-Compliant	
F	orm V-8 - List of Principals and Officers	Compliant/ Non-Compliant	
	orm V-9 - FTA Certification Regarding Debarment, uspension, Ineligibility and Voluntary Exclusion	Compliant/ Non-Compliant	
F	orm V-10 - FTA Certification of Restrictions on Lobbying	Compliant/ Non-Compliant	
	orm V-11 - FTA Certification Regarding Clean Air Act and ederal Water Pollution Control Act	Compliant/ Non-Compliant	
F	orm V-12 - FTA Buy America Certificate	Compliant/ Non-Compliant	
	orm V-13 - Certificate of Compliance With Drug and Icohol Testing and Drug-Free Workplace Act	Compliant/ Non-Compliant	
OTAL	TOTAL EVALUATION SCORE	100 points	77

\$ 771,428

Scoring Range Excellent Good Average Below Average Unsatisfactory 10 7 5 3 0 Rating Performed By: 9-16-11 (Printed Nam) (Date) 0 0

COMMUTER RAIL - STRUNA AMTRAK, BNSF, CANADIAN PACIFIC FAILWAT HIGH SPOED RAIL EXPORIDUCE CTA KCS, NYCT OBRATIVE GOOD MISSION STATEMENT ONSWE FLEET PORERMANE IN COST EFFERINE MANNA - GLOBAR / WORLD WIDE =20210/14 19.1 BILLIAN OFORDIAL * APS - TOCHNOLOGICS LAWKA QUEBER, CANADA - BOMBANDIOL - LOW VOLTAGE PS KEVONT REARDON - FAR STSTORES 2 ATTALY MALLE - BUY Armica Comp TREENTO, ITAY * COMMUNICATION STATEMS Ful MOTRO WASHING W INTORALLA STSTOMS CORP. 65% BAA COMPLIANT PITTSBURG, PA - COINTECLAIRE, QUOBEL EDGN PRAILINE , - 30% BAA COMPLIANT MINNESOTA MARTH - REBULD × MOSTLY COMMUTER VOLICUS & PROSPECT MANAGE - SHANN GAVAE - PAST - PM - PROPERT MANAGEM (ALL ALONDANT) STUMS W/ MISM - PEODUCTIN MANAUNC ELECTRICIAN FILTER MANMUCH - PRODUCTIVE SUDOWISH CHAMICS WHIGHT + LOAD ELECTRICAL ENGINER 19 YUNES - JOIN ALSTM ZOOG Contracts theme HECHANICAL ENGINER- MANEL OANCIA PROPULSINON ONGUL -JUAN ANTONIO BANAATA ALSOM PROJECT MANALON X¥ ALSIM 2003 2008-SEMMIS 1993-2003 MARTI

2011

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

RENNOVATION AS POSSIBLE ON RETSITE A SPECIAL AST OFFISITE æ - HVAC WHOUS AND AXLOS CRASH ROOME DAM IN MARCISLAND, CA MADIL I RISK - SUBCENMANN PURFARMANIE - NW SUBSISMM INTEGRATIN - SUPPLY CHAN TRACTION MOTORS? CONDITION BROWD ECPANN / QUILTING AS REALING COST SAVINGS ALGOW TO TRAIN RT TRAINWYSTOTRAIN TRAINMY USE PRISMA - DOWNWIT MANALWMINT SYSUM 4.3. CompLINE W/ TECH SPIES PAINTING - NO WARP? VORT GINDERL - COMPLIES WITH DATH SIZIM/ SECTIONE - COMMINICATION STSPAM - PROVIDE SEPTE APS ALSAM TO PURTERLAN LIMINO LINE STUDY 01-TPSS SYSM RT A JINA USOD IN NTC 4,4.5 Recenter -EVINT FAR USUD INWMATA

ST LRV - 2ND QUANTUR 2013 Scrwont AU VOTILIES 2015

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

RFP No.: 2010043

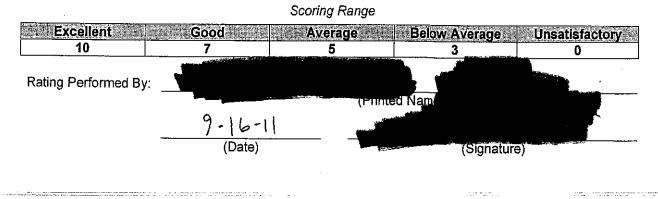
PROPOSAL EVALUATION FORM

Contractor's Name: <u>SIEMENS INDUSTRY, INC.</u>

		EVALUATION CRITERIA	Maximum possible score	SCORE
Letter	of Ti	ransmittal	Compliant/Non- Compliant	#2102.0000000000000000000000000000000000
Part 1	- Th	e Firm; Major Subsystem Subcontractors:	10 points	
	A.	The Firm Experience Financial Capacity	5 points	5
	В.	Subsystem Suppliers	5 points	4
Part 2	- Ref	erenced Projects:	3 points	3
Part 3	- Pro	ject Staffing and Experience:	12 points	
	Α.	Staffing Plan and Resumes	6 points	5
	B.	Project Manager	6 points	6
Part 4 ·	Tec	hnical Submittal:	35 points	
	Α.	Approach to Accomplish the Work	9 points	8
	В.	Quality Control	5 points	4
	C.	Compliance with Technical Specifications	8 points	6
	D.	Relevant Design and Manufacturing of Subsystems - New Subassembly Components:		
		Auxiliary Power System	3 points	3
		Communications System	3 points	2
		Event Recorder System	2 points	2
	E.	Project Schedule	5 points	3
Sub- OTAL		QUALIFICATIONS AND TECHNICAL SCORE	60 points	51

		Maximum possible score	SCORE
Part 5 -	Price Proposal:		
Fo	orm V-1 - Proposal Price (separately sealed envelope) Proposer's Score = <u>Lowest Total Price</u> X 40 Proposer's Total Price (including RT-determined costs for off-site work)		90
Sub- Total	PRICE SCORE	40 points	32
Fo	oposal Security (separately sealed envelope) rm V-2A – Bid Bond, or rm V-2B - Irrevocable Letter of Credit	Compliant/ Non-Compliant	
Fo	rm V-3 - Receipt of Addenda	Compliant/ Non-Compliant	
Fo	rm V-4 - Interests and Gratuities Certification	Compliant/ Non-Compliant	
Fo	rm V-5 - Campaign Contribution Disclosure Form	Compliant/ Non-Compliant	
Fo	rm V-6 - Certification Regarding Organizational Conflicts	Compliant/ Non-Compliant	
For	m V-7 - Certification Regarding RT's Form of Agreement	Compliant/ Non-Compliant	
For	m V-8 - List of Principals and Officers	Compliant/ Non-Compliant	
For Sue	m V-9 - FTA Certification Regarding Debarment, spension, Ineligibility and Voluntary Exclusion	Compliant/ Non-Compliant	
	m V-10 - FTA Certification of Restrictions on Lobbying	Compliant/ Non-Compliant	
	m V-11 - FTA Certification Regarding Clean Air Act and leral Water Pollution Control Act	Compliant/ Non-Compliant	
	m V-12 - FTA Buy America Certificate	Compliant/ Non-Compliant	
	m V-13 - Certificate of Compliance With Drug and bhol Testing and Drug-Free Workplace Act	Compliant/ Non-Compliant	
OTAL	TOTAL EVALUATION SCORE	100 points	83

\$ 952,128.



UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

PROPOSAL REQUIREMENTS

511

Strengths/Weaknesses: SIEMENS INDUSTRY, INC.

SIMIN'S PLANT. BOCAL - SOUTH SACRWMITCO FAMILIAR PM/ROTAINED VTA OPORATION MANAGE 75' 1100 LIGHT RAL & HONVY MALL CAME - OWN 800 IN SORVICE HIGH FLOOR PODTA - Mare LIGHT RAIL VOLICLE EXAMONE ROBULD EXPRESSING - SAUDICLO MITA / + RTI - No HIDRING ... BEOUGHT - CHRIS EICHIN FINANCILL - 116.6 BILLIN. - CURRINT LEV PROVETES APS - SIGMINS EVENT RECERDOR - BACK SIMPSON - CANNOT COTPPLY N/ BAA COMMUNICATION SUSTIM - INTORAMA - EDON PRAIRIC, MN - TRANSLITE - MESSAUE SIGNSE DISRAMS 72 (USED GAVITE ABITE) SOE CAR PROGRAM HISAM X REPECTENCE REDUCE TO ++++ P.M-KONSTANTIN BREUCHA - MAUR IN FE MERMANICAL BNGINGER - OUR STYMAS becallaby GINION 17+ yuman +++ BOMMUNICHTONS ENGINE + + PROPULSION ONGINAM + + HUAC BYSAM RCHWICAL ADVISOR - CHIRIS ELCHINI +++ the MSH -UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011 PROPOSAL REQUIREMENTS

Strengths/Weaknesses: SIEMENS INDUSTRY, INC.

HUNDOT CANNOT GUARANTEE 3 TO 5 1 RT WORK AT FAGLITHS TRUCK OUTE HALL AT FRINGH ROAD PLAN HVAC AT SUBCONTRACTURES FACILITY " INCUNDED A GOOD PROCESS FROM CHINET +** OUDENIN & SUMMUNT OF SCORE OFWORK - PAINT & WINYL FILM # & Scope IS DEDAILED UTDC Light Rail Vehicle Refurbishment

RFP No.: 2010043

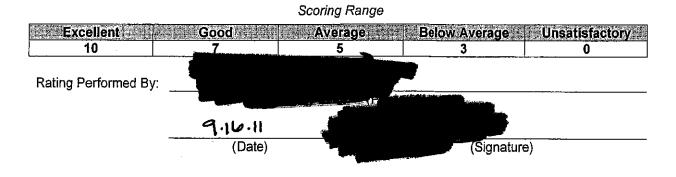
PROPOSAL EVALUATION FORM

Contractor's Name: ALSTOM

		EVALUATION CRITERIA	Maximum possible score	SCORE
Letter	of T	ransmittal	Compliant/Non- Compliant	
Part 1	- Th	e Firm; Major Subsystem Subcontractors:	10 points	7
	Α.	The Firm Experience Financial Capacity	5 points	3
	В.	Subsystem Suppliers	5 points	4
Part 2	- Rei	erenced Projects:	3 points	2
Part 3	- Pro	ject Staffing and Experience:	12 points	7
	Α.	Staffing Plan and Resumes	6 points	4
	В.	Project Manager	6 points	3
Part 4 -	Tec	hnical Submittal:	35 points	25
	Α.	Approach to Accomplish the Work	9 points	7
	В.	Quality Control	5 points	3
	C.	Compliance with Technical Specifications	8 points	.7
	D.	Relevant Design and Manufacturing of Subsystems - New Subassembly Components:		/
		Auxiliary Power System	3 points)
		Communications System	3 points	2
		Event Recorder System	2 points	ŀ
	Ε.	Project Schedule	5 points	3
Sub- OTAL	- <u></u>	QUALIFICATIONS AND TECHNICAL SCORE	60 points	40

12

	EVALUATION CRITERIA	Maximum possible score	SCORE
Part 5 -	Price Proposal:	in a surface of the s	
	rm V-1 - Proposal Price (separately sealed envelope) Proposer's Score = <u>Lowest Total Price</u> X 40 Proposer's Total Price (including RT-determined costs for off-site work)		40
Sub- Total	PRICE SCORE	40 points	40
Foi	oposal Security (separately sealed envelope) rm V-2A – Bid Bond, or rm V-2B - Irrevocable Letter of Credit	Compliant/ Non-Compliant	
For	rm V-3 - Receipt of Addenda	Compliant/ Non-Compliant	\checkmark
For	rm V-4 - Interests and Gratuities Certification	Compliant/ Non-Compliant	\checkmark
For	m V-5 - Campaign Contribution Disclosure Form	Compliant/ Non-Compliant	V
For	m V-6 - Certification Regarding Organizational Conflicts	Compliant/ Non-Compliant	\checkmark
For	m V-7 - Certification Regarding RT's Form of Agreement	Compliant/ Non-Compliant	V
For	m V-8 - List of Principals and Officers	Compliant/ Non-Compliant	\checkmark
	m V-9 - FTA Certification Regarding Debarment, spension, Ineligibility and Voluntary Exclusion	Compliant/ Non-Compliant	V
For	m V-10 - FTA Certification of Restrictions on Lobbying	Compliant/ Non-Compliant	\checkmark
	m V-11 - FTA Certification Regarding Clean Air Act and leral Water Pollution Control Act	Compliant/ Non-Compliant	V
For	m V-12 - FTA Buy America Certificate	Compliant/ Non-Compliant	V
	m V-13 - Certificate of Compliance With Drug and bhol Testing and Drug-Free Workplace Act	Compliant/ Non-Compliant	\checkmark
OTAL	TOTAL EVALUATION SCORE	100 points	BO



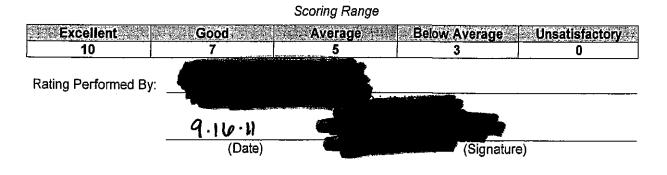
RFP No.: 2010043

PROPOSAL EVALUATION FORM

Contractor's Name: SIEMENS INDUSTRY, INC.

		EVALUATION CRITERIA	Maximum possible score	SCORE
Letter	of T	ransmittal	Compliant/Non- Compliant	······································
Part 1	- Th	e Firm; Major Subsystem Subcontractors:	10 points	B
	А.	The Firm Experience Financial Capacity	5 points	4
	•В.	Subsystem Suppliers Supplier Experience Manufacturing Capability	5 points	4
Part 2 ·	Ref	erenced Projects:	3 points	.1
Part 3 -	Pro	ject Staffing and Experience:	12 points	10
	Α.	Staffing Plan and Resumes	6 points	5
	В.	Project Manager	6 points	5
Part 4 -	Тес	hnical Submittal:	35 points	26
	Α.	Approach to Accomplish the Work	9 points	7
	В.	Quality Control	5 points	З
	C.	Compliance with Technical Specifications	8 points	7
,	D.	Relevant Design and Manufacturing of Subsystems - New Subassembly Components:		
		Auxiliary Power System	3 points	2
		Communications System	3 points	2
		Event Recorder System	2 points	}
	E.	Project Schedule	5 points	4
Sub- TOTAL		QUALIFICATIONS AND TECHNICAL SCORE	60 points	45

	EVALUATION CRITERIA	Maximum possible score	SCORE
Part 5	- Price Proposal:		<u>1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997</u>
	orm V-1 - Proposal Price (separately sealed envelope) Proposer's Score = <u>Lowest Total Price</u> X 40 Proposer's Total Price (including RT-determined costs for off-site work)		32
Sub- Total	PRICE SCORE	40 points	32
F	roposal Security (separately sealed envelope) orm V-2A – Bid Bond, or orm V-2B - Irrevocable Letter of Credit	Compliant/ Non-Compliant	
F	orm V-3 - Receipt of Addenda	Compliant/ Non-Compliant	\checkmark
Fo	orm V-4 - Interests and Gratuities Certification	Compliant/ Non-Compliant	\checkmark
Fo	orm V-5 - Campaign Contribution Disclosure Form	Compliant/ Non-Compliant	V
Fo	orm V-6 - Certification Regarding Organizational Conflicts	Compliant/ Non-Compliant	V
Fc	orm V-7 - Certification Regarding RT's Form of Agreement	Compliant/ Non-Compliant	V
Fc	orm V-8 - List of Principals and Officers	Compliant/ Non-Compliant	\checkmark
	orm V-9 - FTA Certification Regarding Debarment, Ispension, Ineligibility and Voluntary Exclusion	Compliant/ Non-Compliant	V
Fo	rm V-10 - FTA Certification of Restrictions on Lobbying	Compliant/ Non-Compliant	V
	rm V-11 - FTA Certification Regarding Clean Air Act and deral Water Pollution Control Act	Compliant/ Non-Compliant	\checkmark
Fo	Form V-12 - FTA Buy America Certificate Compliant/ Non-Compliant		V
	rm V-13 - Certificate of Compliance With Drug and cohol Testing and Drug-Free Workplace Act	Compliant/ Non-Compliant	V
OTAL	TOTAL EVALUATION SCORE	100 points	77



UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

RFP No.: 2010043

PROPOSAL EVALUATION FORM

Contractor's Name: ALSTOM

		EVALUATION CRITERIA	Maximum possible score	SCORE
Letter	of T	ransmittal	Compliant/Non- Compliant	
Part 1	- Th	e Firm; Major Subsystem Subcontractors:	10 points	
	A.	The Firm Experience Financial Capacity	5 points	3.0
	В.	Subsystem Suppliers Supplier Experience Manufacturing Capability	5 points	4.0
Part 2	- Rei	ferenced Projects:	3 points	3,0
Part 3 ·	- Pro	ject Staffing and Experience:	12 points	······································
	A.	Staffing Plan and Resumes	6 points	2.5
	В.	Project Manager	6 points	1.0
Part 4 -	Tec	hnical Submittal:	35 points	
	Α.	Approach to Accomplish the Work	9 points	4.0
— — _	B.	Quality Control	5 points	2.0.
	C.	Compliance with Technical Specifications	8 points	7.0
	D.	Relevant Design and Manufacturing of Subsystems - New Subassembly Components:		
		Auxiliary Power System	3 points	1,5
		Communications System	3 points	3.0
		Event Recorder System	2 points	2.0
	E.	Project Schedule	5 points	4.0
Sub- OTAL		QUALIFICATIONS AND TECHNICAL SCORE	60 points	37

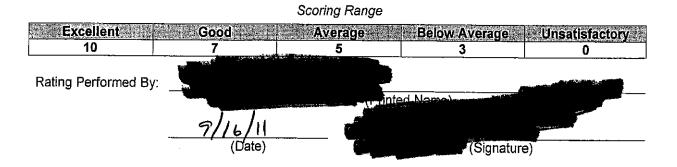
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UTDC Light Rail Vehicle Refurbishment

2010043/5.19.2011

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		EVALUATION CRITERIA	Maximum possible score	SCORE	
Part	5 -	Price Proposal:		a in éine fra éine fra an tha	
		rm V-1 - Proposal Price (separately sealed envelope) Proposer's Score = <u>Lowest Total Price</u> X 40 Proposer's Total Price (including RT-determined costs for off-site work)			
Sul Tot		PRICE SCORE	40 points	16,000;	200
	Fo	oposal Security (separately sealed envelope) rm V-2A – Bid Bond, or rm V-2B - Irrevocable Letter of Credit	Compliant/ Non-Compliant	16,000;	771,429
	Foi	rm V-3 - Receipt of Addenda	Compliant/ Non-Compliant		
	For	rm V-4 - Interests and Gratuities Certification	Compliant/ Non-Compliant		
	For	m V-5 - Campaign Contribution Disclosure Form	Compliant/ Non-Compliant		
	For	m V-6 - Certification Regarding Organizational Conflicts	Compliant/ Non-Compliant		
	For	m V-7 - Certification Regarding RT's Form of Agreement	Compliant/ Non-Compliant		
	For	m V-8 - List of Principals and Officers	Compliant/ Non-Compliant		
		m V-9 - FTA Certification Regarding Debarment, spension, Ineligibility and Voluntary Exclusion	Compliant/ Non-Compliant		
	For	m V-10 - FTA Certification of Restrictions on Lobbying	Compliant/ Non-Compliant		-
		m V-11 - FTA Certification Regarding Clean Air Act and leral Water Pollution Control Act	Compliant/ Non-Compliant		
1	For	m V-12 - FTA Buy America Certificate	Compliant/ Non-Compliant		
		m V-13 - Certificate of Compliance With Drug and bhol Testing and Drug-Free Workplace Act	Compliant/ Non-Compliant		
ота	L	TOTAL EVALUATION SCORE	100 points		



UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

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UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

RFP No.: 2010043

PROPOSAL EVALUATION FORM

Contractor's Name: SIEMENS INDUSTRY, INC.

		EVALUATION CRITERIA	Maximum possible score	SCORE	
Letter of Transmittal			Compliant/Non- Compliant		
Part 1 - The Firm; Major Subsystem Subcontractors: 10 points					
	Α.	The Firm Experience Financial Capacity	5 points	4.0	
	В.	Subsystem Suppliers Supplier Experience Manufacturing Capability	5 points	4,5	
Part 2 - Referenced Projects:		3 points	2.0		
Part 3 -	Pro	ject Staffing and Experience:	12 points		
	Α.	Staffing Plan and Resumes	6 points	5.0	
	В.	Project Manager	6 points	6,0	
Part 4 -	Тес	hnical Submittal:	35 points		
	Α.	Approach to Accomplish the Work	9 points	7.0 ,	
	В.	Quality Control	5 points	3.0	
	C.	Compliance with Technical Specifications	8 points	6.0	
	D.	Relevant Design and Manufacturing of Subsystems - New Subassembly Components:			
		Auxiliary Power System	3 points	3,0	
		Communications System	3 points	3.0	
		Event Recorder System	2 points	2.0	
	Е.	Project Schedule	5 points	3.5	
Sub- OTAL		QUALIFICATIONS AND TECHNICAL SCORE	60 points	49,0	

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UTDC Light Rail Vehicle Refurbishment

2010043/5.19.2011

	EVALUATION CRITERIA	Maximum possible score	SCORE	
Part 5	- Price Proposal:		2 8 C - 1 2 C - 1 2 C - 2 C - 2 C - 2 C - 2 C - 2 C - 2 C - 2 C - 2 C - 2 C - 2 C - 2 C - 2 C - 2 C - 2 C - 2 C	
	orm V-1 - Proposal Price (separately sealed envelope) Proposer's Score = <u>Lowest Total Price</u> X 40 Proposer's Total Price (including RT-determined costs for off-site work)			-
Sub- Total	PRICE SCORE	40 points	19,994	688,9
Fo	oposal Security (separately sealed envelope) rm V-2A – Bid Bond, or rm V-2B - Irrevocable Letter of Credit	Compliant/ Non-Compliant	19,994	952128
Fo	rm V-3 - Receipt of Addenda	Compliant/ Non-Compliant		
Fo	rm V-4 - Interests and Gratuities Certification	Compliant/ Non-Compliant		-
Form V-5 - Campaign Contribution Disclosure Form		Compliant/ Non-Compliant		
Form V-6 - Certification Regarding Organizational Conflicts		Compliant/ Non-Compliant		-
Form V-7 - Certification Regarding RT's Form of Agreement		Compliant/ Non-Compliant]
Form V-8 - List of Principals and Officers		Compliant/ Non-Compliant		
For Su	m V-9 - FTA Certification Regarding Debarment, spension, Ineligibility and Voluntary Exclusion	Compliant/ Non-Compliant Compliant/]
	Form V-10 - FTA Certification of Restrictions on Lobbying			
Form V-11 - FTA Certification Regarding Clean Air Act and		Non-Compliant Compliant/ Non-Compliant		
	m V-12 - FTA Buy America Certificate	Compliant/ Non-Compliant		
For Alco	m V-13 - Certificate of Compliance With Drug and ohol Testing and Drug-Free Workplace Act	Compliant/ Non-Compliant		
DTAL	TOTAL EVALUATION SCORE	100 points		

Scoring Range Excellent Good Average Below:Average Unsatisfactory 10 7 5 3 0 Rating Performed By: 9/16/11 (Date) (Printed Name)

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

PAGE 26

Strengths/Weaknesses: SIEMENS INDUSTRY, INC. discussion of various wover Orocesse 4 C P Submi キ elop ۵ C Coch 1100 \sim olone UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011 PROPOSAL REQUIREMENTS

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RFP No.: 2010043

PROPOSAL EVALUATION FORM

Contractor's Name: ALSTOM

		EVALUATION CRITERIA	Maximum possible score	SCORE
Letter of Transmittal		Compliant/Non- Compliant		
Part 1	- Th	e Firm; Major Subsystem Subcontractors:	10 points	
	A.	The Firm Experience Financial Capacity	5 points	5
	В.	Subsystem Suppliers Supplier Experience Manufacturing Capability	5 points	3
Part 2 -	Part 2 - Referenced Projects:		3 points	3
Part 3 -	Pro	ject Staffing and Experience:	12 points	
	Α.	Staffing Plan and Resumes	6 points	4
	В.	Project Manager	6 points	2
Part 4 -	Part 4 - Technical Submittal:		35 points	
	Α.	Approach to Accomplish the Work	9 points	3
_	В.	Quality Control	5 points	2
	C.	Compliance with Technical Specifications	8 points	4
	D.	Relevant Design and Manufacturing of Subsystems - New Subassembly Components:		
	:	Auxiliary Power System	3 points	2
		Communications System	3 points	3
		Event Recorder System	2 points	2
	Ε.	Project Schedule	5 points	L)
Sub- OTAL		QUALIFICATIONS AND TECHNICAL SCORE	60 points	37

	EVALUATION CRITERIA	Maximum possible score	SCORE
Part 5	- Price Proposal:		a on the trade of the trade of the trade of the
	orm V-1 - Proposal Price (separately sealed envelope) Proposer's Score = <u>Lowest Total Price</u> X 40 Proposer's Total Price (including <u>RT-determined costs for off-site work)</u>		
Sub- Total	PRICE SCORE	40 points	40
F	roposal Security (separately sealed envelope) orm V-2A – Bid Bond, or orm V-2B - Irrevocable Letter of Credit	Compliant/ Non-Compliant	
F	orm V-3 - Receipt of Addenda	Compliant/ Non-Compliant	C
Fo	orm V-4 - Interests and Gratuities Certification	Compliant/ Non-Compliant	C
Fo	orm V-5 - Campaign Contribution Disclosure Form	Compliant/ Non-Compliant	۲
Fo	orm V-6 - Certification Regarding Organizational Conflicts	Compliant/ Non-Compliant	C
Fo	orm V-7 - Certification Regarding RT's Form of Agreement	Compliant/ Non-Compliant	
Fo	orm V-8 - List of Principals and Officers	Compliant/ Non-Compliant	С
	orm V-9 - FTA Certification Regarding Debarment, uspension, Ineligibility and Voluntary Exclusion	Compliant/ Non-Compliant	
Fo	orm V-10 - FTA Certification of Restrictions on Lobbying	Compliant/ Non-Compliant	C
	rm V-11 - FTA Certification Regarding Clean Air Act and deral Water Pollution Control Act	Compliant/ Non-Compliant	۲
Fo	rm V-12 - FTA Buy America Certificate	Compliant/ Non-Compliant	ζ
	rm V-13 - Certificate of Compliance With Drug and cohol Testing and Drug-Free Workplace Act	Compliant/ Non-Compliant	C
OTAL	TOTAL EVALUATION SCORE	100 points	77

 Scoring Range

 Excellent
 Good
 Average
 Below Average
 Unsatisfactory

 10
 7
 5
 3
 0

 Rating Performed By:

 9/1/1/((Date))
 9/1/1/((Date))

Strengths/Weaknesses: ALSTOM Alson - large statte corroration رم a with mide presents in a orly The US compones hanspolation. with 150 employe rather s spical and one encar 10m facilities Alston n impressive enenced number en f iles on the rep or list (+) STAFFENG - Proposed manager - Shan banne interesting resume, late of ouns Land a an experience callene Shalling ---mes M the proposed $\underline{}$ page noch flor TECHNECAL <u>ocer</u>s 28 an son Alsons ted ral proposa \sim a

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

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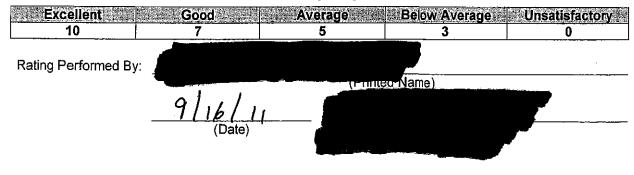
PROPOSAL EVALUATION FORM

Contractor's Name: SIEMENS INDUSTRY, INC.

		EVALUATION CRITERIA	Maximum possible score	SCORE
Letter of Transmittal			Compliant/Non- Compliant	
Part 1	- Th	e Firm; Major Subsystem Subcontractors:	10 points	
	Α.	The Firm Experience Financial Capacity	5 points	5
	В.	Subsystem Suppliers	5 points	4
Part 2 -	Part 2 - Referenced Projects:		3 points	2
Part 3 -	Pro <u></u>	ject Staffing and Experience:	12 points	
	Α.	Staffing Plan and Resumes	6 points	6
	В.	Project Manager	6 points	6
Part 4 -	Tec	hnical Submittal:	35 points	
1	Α.	Approach to Accomplish the Work	9 points	7
	B.	Quality Control	5 points	5
	C.	Compliance with Technical Specifications	8 points	6
	D.	Relevant Design and Manufacturing of Subsystems - New Subassembly Components:		
		Auxiliary Power System	3 points	3
		Communications System	3 points	3
		Event Recorder System	2 points	3 3 2
	Ε.	Project Schedule	5 points	ų ų
Sub- OTAL		QUALIFICATIONS AND TECHNICAL SCORE	60 points	53

	EVALUATION CRITERIA	Maximum possible score	SCORE
Part 5	- Price Proposal:		
F	orm V-1 - Proposal Price (separately sealed envelope) Proposer's Score = <u>Lowest Total Price</u> X 40 Proposer's Total Price (including RT-determined costs for off-site work)		
Sub- Total	PRICE SCORE	40 points	32
F	roposal Security (separately sealed envelope) orm V-2A – Bid Bond, or orm V-2B - Irrevocable Letter of Credit	Compliant/ Non-Compliant	
F	orm V-3 - Receipt of Addenda	Compliant/ Non-Compliant	G
Fo	orm V-4 - Interests and Gratuities Certification	Compliant/ Non-Compliant	C
Fo	orm V-5 - Campaign Contribution Disclosure Form	Compliant/ Non-Compliant	С
Fo	orm V-6 - Certification Regarding Organizational Conflicts	Compliant/ Non-Compliant	C
Fo	orm V-7 - Certification Regarding RT's Form of Agreement	Compliant/ Non-Compliant	
Fc	orm V-8 - List of Principals and Officers	Compliant/ Non-Compliant	С
	orm V-9 - FTA Certification Regarding Debarment, uspension, Ineligibility and Voluntary Exclusion	Compliant/ Non-Compliant	
Fo	orm V-10 - FTA Certification of Restrictions on Lobbying	Compliant/ Non-Compliant	C
Fo Fe	orm V-11 - FTA Certification Regarding Clean Air Act and oderal Water Pollution Control Act	Compliant/ Non-Compliant	C
Fo	orm V-12 - FTA Buy America Certificate	Compliant/ Non-Compliant	C
	rm V-13 - Certificate of Compliance With Drug and cohol Testing and Drug-Free Workplace Act	Compliant/ Non-Compliant	N
OTAL	TOTAL EVALUATION SCORE	100 points	85

Scoring Range



Strengths/Weaknesses: SIEMENS INDUSTRY. INC. STIZONG NORTH AMERICAN Market Presents. Scemenz financesly company, in The Transporte lo Ann <u>n</u>a Caller to Employer The proje releven To Sumens icle refundershand listed 7 properties an elatire try 2~~ STAFFING - HEgh the choice norks for in roject managhas, Ki's part upperen ıc Konstantin Breache pro mel rehali le hearry っ nalm eesene disciplines experience TECHNICAL - ens Lance mon 1 ser so line. رح MHRE 19 ongh +) rocess 1 mi con ne specif -n great Å in of α

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

Strengths/Weaknesses: SIEMENS INDUSTRY, INC.

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UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

Strengths/Weaknesses: SIEMENS INDUSTRY, INC.

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UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

## RFP Title: UTDC Light Rail Vehicle Refurbishment RFP No.: 2010043 Date: February 15, 2012

## FINAL OFFERS

| Possible |                                        |                                       | · ·     |
|----------|----------------------------------------|---------------------------------------|---------|
| Points   |                                        | Alstom                                | Siemens |
| 10       | Part 1 - The Firm                      | elected to not score                  | 9       |
| 3        | Part 2 - Referenced Projects           | · · · · · · · · · · · · · · · · · · · |         |
| 12       | Part 3 - Project Staffing & Experience |                                       |         |
| 35       | Part 4 - Technical Submittal           |                                       |         |
| 40       | Part 5 - Price Proposal                |                                       |         |
|          | Totals                                 | 0                                     | 0       |
|          | Rank                                   |                                       |         |

| Possible |                                        |        |         |         |
|----------|----------------------------------------|--------|---------|---------|
| Points   |                                        | Alstom | Siemens |         |
| 10       | Part 1 - The Firm                      | 4      | 9       |         |
| 3        | Part 2 - Referenced Projects           | 1      | 3       |         |
| 12       | Part 3 - Project Staffing & Experience | 2      | 11      |         |
| 35       | Part 4 - Technical Submittal           | 24     | 31      | _       |
| 40       | Part 5 - Price Proposal                | 40     | 32      |         |
|          | Totals                                 | 71     | 86      |         |
|          | Rank                                   |        |         | Siemens |

| Possible |                                        |        | ]       | _      |
|----------|----------------------------------------|--------|---------|--------|
| Points   |                                        | Alstom | Siemens |        |
| 10       | Part 1 - The Firm                      | 7      | 9       | 7      |
| 3        | Part 2 - Referenced Projects           | 2      | 2       |        |
| 12       | Part 3 - Project Staffing & Experience | 6      | 12      |        |
| 35       | Part 4 - Technical Submittal           | 23     | 28      |        |
| 40       | Part 5 - Price Proposal                | 40     | 32      |        |
|          | Totals                                 | 78     | 83      |        |
|          | Rank                                   | 2      | 1       | Siemen |

| Possible<br>Points                        | Alstom | Siemens |
|-------------------------------------------|--------|---------|
| 10 Part 1 - The Firm                      | 9      | 9       |
| 3 Part 2 - Referenced Projects            | 2      | 2       |
| 12 Part 3 - Project Staffing & Experience | 3      | 10      |
| 35 Part 4 - Technical Submittal           | 30     | 31      |
| 40 Part 5 - Price Proposal                | 40     | 32      |
| Totals                                    | 84     | 84      |
| Rank                                      | 1      | 2       |

| Possible<br>Points |                                        | Alstom | Siemens |         |
|--------------------|----------------------------------------|--------|---------|---------|
| 10                 | Part 1 - The Firm                      | 5      | 9       |         |
| 3_                 | Part 2 - Referenced Projects           | 2      | 3       |         |
| 12                 | Part 3 - Project Staffing & Experience | 3      | 12      | ·       |
| 35                 | Part 4 - Technical Submittal           | 20     | 29      |         |
| 40                 | Part 5 - Price Proposal                | 40     | 32      |         |
|                    | Totals                                 | 70     | 85      |         |
|                    | Rank                                   | 2      | 1       | Siemens |

| D !! !   |                                        |        |         |         |
|----------|----------------------------------------|--------|---------|---------|
| Possible |                                        |        |         |         |
| Points   |                                        | Alstom | Siemens |         |
| 10       | Part 1 - The Firm                      | 5      | 8       |         |
| 3        | Part 2 - Referenced Projects           | 2      | 1       |         |
| 12       | Part 3 - Project Staffing & Experience | 5      | 10      |         |
| 35       | Part 4 - Technical Submittal           | 21     | 26      |         |
| 40       | Part 5 - Price Proposal                | 40     | 32      |         |
| ·····    | Totals                                 | 73     | 77      |         |
|          | Rank                                   | 2      | 1       | Siemens |
| Possible |                                        |        |         |         |
| Points   |                                        | Alstom | Siemens |         |
| 10       | Part 1 - The Firm                      | 6.5    | 9.5     |         |
| 3        | Part 2 - Referenced Projects           | 2.5    | 2.5     |         |
| 12       | Part 3 - Project Staffing & Experience | 5.5    | 12      |         |
| 35       | Part 4 - Technical Submittal           | 20     | 31      |         |
| 40       | Part 5 - Price Proposal                | 40     | 32      |         |
|          | Totals                                 | 74.5   | 87      |         |
|          | Rank                                   | 2      | 1       | Siemens |
| Possible |                                        |        |         | -       |
| Points   |                                        | Alstom | Siemens |         |
| 10       | Part 1 - The Firm                      | 7      | 9       |         |
| 3        | Part 2 - Referenced Projects           | 3      | 2       |         |
| 12       | Part 3 - Project Staffing & Experience | 2      | 12      |         |
|          | Part 4 - Technical Submittal           | 21     | 30      |         |
| 40       | Part 5 - Price Proposal                | 40     | 32      | 7       |
|          | Totals                                 | 73     | 85      |         |
|          | Rank                                   | 2      | 1       | Siemens |
|          | OVERALL TOTAL                          | 523.5  | 587     | -       |
|          |                                        |        |         | 1       |
|          | AVE. WEIGHTED                          | 75     | 84      |         |

Highest Ranked: Siemens Second Ranked: Alsom

The Evaluation Committee met on February 15, 2012 to discuss and score the Final Offers.

Prepared By: <u>SIL RUSION</u> Procurement Services/Contract Administration

## FINAL OFFER EVALUATION COMPILED FROM THE SELECTION COMMITTEE'S COMMENTS

#### **EVALUATOR NO. 1**

#### <u>Siemens</u>

Overall they performed a more thorough investigation of the current condition of the vehicles and appear to have a more comprehensive understanding of the condition of the vehicle fleet; therefore, their pricing more accurately reflects the required work.

They have a manufacturing facility and highly trained labor force located in the area where they have immediate access to engineering and additional labor support if required. Additionally, warranty claims can be handled in a more expeditious and timely manner given their resources that are immediately available.

The proposed Project manager has performed work for RT previously and demonstrated his ability to not only bring the project in on time and within budget - there were no change orders or additional charges and throughout the course of the project and they proposed modifications to the project that enhanced their productivity and offered long term ease of maintenance to RT's maintenance staff.

#### <u>Alstom</u>

They have no staff or facilities to support the project - all project labor will have to be hired and in the event additional labor or resources are required there will be a delay during the hiring and training process.

The Proposed project manager has limited to no experience managing a project of this nature and has a degree from a college that didn't require any classroom attendance and was the subject of a 60 Minutes expose.

Alstom's investigation of the current state of the vehicles was cursory and limited which leads to the very real possibility that they do not fully understand the requirements for successfully completing the project on time or within their proposed pricing.

Access to engineering support and their logistical supply line is hindered due to their being located on the east coast and overseas facilities thus resulting in delays to investigation and resolution of any potential project issues that may/will arise.

Alstom currently has provided the propulsion and auxiliary inverter systems for RT's CAF fleet of vehicles. During proposal interviews the Alstom personnel were unaware of that they had any product being used by RT. Their lack of knowledge of this demonstrates their lack of understanding of RT's fleet and the project requirements.

Alstom warranty and aftermarket support of RT's current Alstom products being utilized by RT is virtually non-existent. RT has struggled to maintain vehicle availability due to the lack of technical and parts support. RT has been working with the FTA for over a year, attempting to obtain replacement propulsion inverter components due to Alstom's inability to meet Buy America requirements which has resulted in our having 6 vehicles out of service. This demonstrates that Alstom's is unable to provide the required aftermarket parts and warranty support required by the project specifications.

#### **EVALUATOR NO. 2**

#### Siemens

Siemens demonstrates a clear understanding of the project. The information from them was detailed and provided adequate information on the general project plan, work flow, and specific subsystems. The project team has the education and experience commensurate with a project of this size and scope. Siemens has local support and expertise to quickly address any engineering issues that may arise.

#### Alstom

Alstom's proposal is too general and does not provide enough detail to demonstrate that they have a clear understanding of the project. The up front costs in their pricing is not in line with RT's funding plan. The project team does not have the depth that Siemen's proposed team does.

#### **EVALUATOR NO. 3**

#### <u>Siemens</u>

Detailed proposal presented. Locally situated and past history staffing presented is familiar to the industry.

#### <u>Alstom</u>

Staffing does not present as much experience. No detail to their proposal. Not really convinced if they understand our technical specifications.

#### **EVALUATOR NO. 4**

#### Siemens

Siemens has invested a great deal of time during the development of the RFP and during the negotiations. This was demonstrated by the detail of the technical questions that were raise during these periods. The staffing including the Project Manager has provided the experience needed to accomplish this refurbishment contract and has also proven their ability to perform this type of task with the Communication Retrofit Project. Also being local will benefit the project with the minimum amount of overhead needed to accomplish this task.

#### Alstom

Although Alstom is a large and capable company, the experience working with light rail vehicles raises concerns. The lack of detail and technical questions provided by Alstom's proposal and during negotiation was close to zero, which can potential generate the need for change orders because of the lack of understanding the details needed for this refurbishment. The Project Manager also raised concerns along with his credentials and actual experience with light rail vehicles. Helicopters was his specialty. Also it was stated that the team would be built up once awarded which also causes the concern of not having the in house expertise. It was also acknowledge that the lack of support that Alstom currently provides with the existing products is currently below standards, which will potential cause problems for RT if Alstom is the Car Builder.

#### **EVALUATOR NO. 5**

#### Siemens

RT has previous experience with the project manager Local is a plus. They have resources readily available. It appears that significant effort and research was given to RT questions. Better feeling that Siemens has a thorough understanding of the scope.

#### <u>Alstom</u>

Very concerned about project manager background and education certification. It appears that Alstom will be hiring the majority of their team from scratch. There didn't appear to be a lot of detail in their responses to RT questions. They appeared to flip flop of the project manager.

#### **EVALUATOR NO. 6**

#### **Siemens**

During negotiations Siemens assured RT that the quality was top priority and they showed that they would more than adequately staff and provide the right qualified independent personnel for independent QC inspections and tests. Siemens is very detailed and though through the technical specifications in all areas. There seems to be no risk in that they understand the work.

#### <u>Alstom</u>

Alstom said they will do QC but they would still need to hire someone, which there is a risk. Not enough detail in tech specs. They did not discuss their detailed approach to all items. Big risk here. Also, they are from out of this area and there may be resources issues.

#### **EVALUATOR NO. 7**

#### Siemens

I did not change my scoring of the Siemens proposal. I felt Siemens submitted a solid proposal with reasonably well thought out work flow processes.

#### Alstom

In the first evaluation and rating the issue of the Program Manager and the qualifications loomed large. I felt the individual first identified did not possess the education qualifications expected of this type of position. Alstom identified a new project manager in the updated submittal. The Project manager, Mr. Telly Sionides possesses a Bachelors Degree from "American State University, of Evanston Wyoming. American State University. Research of American State University said this institution was first established in the State of Hawaii, it was closed by that state and moved to Wyoming and renamed Hamilton University where it was closed by court order and reopened in the Bahamas and named Richardson University. The school is reported to be a diploma mill and was the subject of a 60 Minutes story.

I changed my score for Project manager from a 2 to a ZERO. I lowered my Staffing Plan Resume score from a 4 to a 2, based on this information.

Alstom changed the Auxiliary Power System provider to a respected company known in the transit industry so I raised my score on this item from 2 to 3.

My Alstom score was reduced from the first evaluation from 77 points to 73 points.

## RFP No.: 2010043

PROPOSAL EVALUATION FORM

# Contractor's Name: SIEMENS INDUSTRY, INC.

|              |       | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE    |
|--------------|-------|-------------------------------------------------------------------------------|------------------------------|----------|
| Letter       | of Ti | ransmittal                                                                    | Compliant/Non-<br>Compliant  |          |
| Part 1       | - Th  | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    |          |
|              | A.    | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 5        |
|              | В.    | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 4        |
| Part 2 -     | Ref   | erenced Projects:                                                             | 3 points                     | 3        |
| Part 3 -     | Pro   | ject Staffing and Experience:                                                 | 12 points                    |          |
|              | Α.    | Staffing Plan and Resumes                                                     | 6 points                     | 5        |
|              | В.    | Project Manager                                                               | 6 points                     | 6        |
| Part 4 -     | Тес   | hnical Submittal:                                                             | 35 points                    |          |
|              | А.    | Approach to Accomplish the Work                                               | 9 points                     | 8        |
|              | В.    | Quality Control                                                               | 5 points                     | 4        |
|              | C.    | Compliance with Technical Specifications                                      | 8 points                     | <u> </u> |
|              | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |          |
|              |       | Auxiliary Power System                                                        | 3 points                     | 2        |
|              |       | Communications System                                                         | 3 points                     | 2        |
|              |       | Event Recorder System                                                         | 2 points                     | 2        |
|              | E.    | Project Schedule                                                              | 5 points                     | 5        |
| Sub-<br>OTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 54       |

# **FINAL OFFERS FEBRUARY 15, 2012**

|               | EVALUATION CRITERIA                                                                                                                                                                               | Maximum<br>possible<br>score | SCORE                                      |  |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------------------------------|--|
| Part 5        | - Price Proposal:                                                                                                                                                                                 |                              | a <u>fanifal</u> inersteadersteadersteader |  |
| F             | form V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) | 40 points                    | 32                                         |  |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                       | 40 points                    |                                            |  |
| F             | roposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                        | Compliant/<br>Non-Compliant  |                                            |  |
| F             | orm V-3 - Receipt of Addenda                                                                                                                                                                      | Compliant/<br>Non-Compliant  | V                                          |  |
| F             | orm V-4 - Interests and Gratuities Certification                                                                                                                                                  | Compliant/<br>Non-Compliant  |                                            |  |
| F             | orm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                   | Compliant/<br>Non-Compliant  | V                                          |  |
| F             | orm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                        | Compliant/<br>Non-Compliant  | V                                          |  |
| Fo            | orm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                          | Compliant/<br>Non-Compliant  | V                                          |  |
| Fo            | orm V-8 - List of Principals and Officers                                                                                                                                                         | Compliant/<br>Non-Compliant  | V                                          |  |
|               | orm V-9 - FTA Certification Regarding Debarment,<br>uspension, Ineligibility and Voluntary Exclusion                                                                                              | Compliant/<br>Non-Compliant  | $\checkmark$                               |  |
| Fo            | orm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant  |                                            |  |
|               | orm V-11 - FTA Certification Regarding Clean Air Act and ederal Water Pollution Control Act                                                                                                       | Compliant/<br>Non-Compliant  | $\checkmark$                               |  |
| Fc            | Form V-12 - FTA Buy America Certificate Compliant/<br>Non-Compliant                                                                                                                               |                              |                                            |  |
|               | orm V-13 - Certificate of Compliance With Drug and<br>cohol Testing and Drug-Free Workplace Act                                                                                                   | Compliant/<br>Non-Compliant  | $\checkmark$                               |  |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                            | 100 points                   | 86                                         |  |

#### Scoring Range

Excellent Good Average 📖 Below Average Unsatisfactory 10 3 0 7 Rating Performed By: inter vares J (Date) (Signature) FINAL OFFERS FEBRUARY 15, 2012

## RFP No.: 2010043

PROPOSAL EVALUATION FORM

Contractor's Name: ALSTOM

|              |         | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE      |
|--------------|---------|-------------------------------------------------------------------------------|------------------------------|------------|
| Letter       | of T    | ransmittal                                                                    | Compliant/Non-<br>Compliant  |            |
| Part 1       | - Th    | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    |            |
|              | А.      | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 2          |
|              | В.      | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 2          |
| Part 2 -     | Ref     | erenced Projects:                                                             | 3 points                     | 1          |
| Part 3 -     | Pro     | ject Staffing and Experience:                                                 | 12 points                    |            |
|              | A.      | Staffing Plan and Resumes                                                     | 6 points                     | 2          |
|              | В.      | Project Manager                                                               | 6 points                     | Ø          |
| Part 4 -     | Tec     | hnical Submittal:                                                             | 35 points                    | - <i>F</i> |
|              | Α.      | Approach to Accomplish the Work                                               | 9 points                     | 4          |
|              | В.      | Quality Control                                                               | 5 points                     | 4          |
|              | C.      | Compliance with Technical Specifications                                      | 8 points                     | 6          |
|              | D.      | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |            |
|              |         | Auxiliary Power System                                                        | 3 points                     | 1          |
|              |         | Communications System                                                         | 3 points                     | a          |
|              |         | Event Recorder System                                                         | 2 points                     | 2          |
|              | Ε.      | Project Schedule                                                              | 5 points                     | 5          |
| Sub-<br>OTAL | · · · · | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 31         |

# FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

|               | EVALUATION CRITERIA                                                                                                                                                                                      | Maximum<br>possible<br>score | SCORE        |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------|
| Part 5        | - Price Proposal:                                                                                                                                                                                        |                              |              |
|               | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br><u>RT-determined costs for off-site work</u> ) |                              | 40           |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                              | 40 points                    |              |
| Fo            | roposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                               | Compliant/<br>Non-Compliant  | V            |
| Fo            | orm V-3 - Receipt of Addenda                                                                                                                                                                             | Compliant/<br>Non-Compliant  | V            |
| Fo            | orm V-4 - Interests and Gratuities Certification                                                                                                                                                         | Compliant/<br>Non-Compliant  |              |
| Fo            | orm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                          | Compliant/<br>Non-Compliant  | V            |
| Fo            | orm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                               | Compliant/<br>Non-Compliant  | $\checkmark$ |
| Fo            | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                                  | Compliant/<br>Non-Compliant  | $\checkmark$ |
| Fo            | rm V-8 - List of Principals and Officers                                                                                                                                                                 | Compliant/<br>Non-Compliant  | V            |
|               | rm V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                                       | Compliant/<br>Non-Compliant  | V            |
| Fo            | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                                  | Compliant/<br>Non-Compliant  | $\checkmark$ |
|               | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                                             | Compliant/<br>Non-Compliant  | $\checkmark$ |
| Fo            | rm V-12 - FTA Buy America Certificate                                                                                                                                                                    | Compliant/<br>Non-Compliant  | $\checkmark$ |
|               | rm V-13 - Certificate of Compliance With Drug and<br>sohol Testing and Drug-Free Workplace Act                                                                                                           | Compliant/<br>Non-Compliant  | $\checkmark$ |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                                   | 100 points                   | 71           |

# Scoring Range Excellent Good Average Below Average Unsatisfactory 10 7 5 3 0 Rating Performed By: 2/15/12 2/15/12 2/15/12 3/15/12 3/15/12 FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

Page 1

 From:
 Sue Robison

 To:
 Sue Robison

 Date:
 2/16/2012 7:44 AM

 Subject:
 UTDC Retrofit Project Evaluation Comments

 Attachments:
 Operation

\*\* Confidential \*\* Good Morning Sue...

Here are my selection justification comments for the UTDC Retrofit Project

Siemens:

Overall they performed a more thorough investigation of the current condition of the vehicles and appear to have a more comprehensive understanding of the condition of the vehicle fleet ; therefore, their pricing more accurately reflects the required work.

They have a manufacturing facility and highly trained labor force located in the area where they have immediate access to engineering and additional labor support if required. Additionally, warranty claims can be handled in a more expeditious and timely manner given their resources that are immediately available.

The proposed Project manager has preformed work for RT previously and demonstrated his ability to not only bring the project in on time and within budget - there were no change orders or additional charges and throughout the course of the project and they proposed modifications to the project that enhanced their productivity and offered long term ease of maintenance to RT's maintenance staff.

#### Alstom:

They have no staff or facilities to support the project - all project labor will have to be hired and in the event additional labor or resources are required there will be a delay during the hiring and training process.

The Proposed project manager has limited to no experience managing a project of this nature and has a degree from a college that didn't require any classroom attendance and was the subject of a 60 minutes expose.

Alstom's investigation of the current state of the vehicles was cursory and limited which leads to the very real possibility that they do not fully understand the requirements for successfully completing the project on time or within their proposed pricing.

Access to engineering support and their logistical supply line is hindered due to their being located on the east coast and overseas facilities thus resulting in delays to investigation and resolution of any potential project issues that may/will arise.

Alstom currently has provided the propulsion and auxiliary inverter systems for RT's CAF fleet of vehicles. During proposal interviews the Alstom personnel were unaware of that they had any product being used by RT. Their lack of knowledge of this demonstrates their lack of understanding of RT's fleet and the project requirements.

Alstom warranty and aftermarket support of RT's current Alstom products being utilized by RT is virtually non-existent. RT has struggled to maintain vehicle availability due to the lack of technical and parts support. RT has been working with the FTA for over a year, attempting to obtain replacement propulsion inverter components due to Alstom's inability to meet Buy America requirements which has resulted in our having 6 vehicles out of service. This demonstrates that Alstom's is unable to provide the required aftermarket parts and warranty support required by the project specifications.

## RFP No.: 2010043

PROPOSAL EVALUATION FORM

# Contractor's Name: SIEMENS INDUSTRY, INC.

|               |       | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE                                  |
|---------------|-------|-------------------------------------------------------------------------------|------------------------------|----------------------------------------|
| Letter of     | of Tr | ransmittal                                                                    | Compliant/Non-<br>Compliant  |                                        |
| Part 1        | - Th  | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    |                                        |
|               | А.    | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 5                                      |
|               | В.    | Subsystem Suppliers                                                           | 5 points                     | 4                                      |
| Part 2 -      | Ref   | erenced Projects:                                                             | 3 points                     | 2                                      |
| Part 3 -      | Pro   | ject Staffing and Experience:                                                 | 12 points                    |                                        |
|               | Α.    | Staffing Plan and Resumes                                                     | 6 points                     | 6                                      |
|               | В.    | Project Manager                                                               | 6 points                     | 6                                      |
| Part 4 -      | Тес   | hnical Submittal:                                                             | 35 points                    | ¥                                      |
|               | Α.    | Approach to Accomplish the Work                                               | 9 points                     | 8                                      |
|               | В.    | Quality Control                                                               | 5 points                     | <u>ч</u>                               |
|               | C.    | Compliance with Technical Specifications                                      | 8 points                     | 7                                      |
|               | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              | ······································ |
|               |       | Auxiliary Power System                                                        | 3 points                     | 2                                      |
|               |       | Communications System                                                         | 3 points                     | 2                                      |
|               |       | Event Recorder System                                                         | 2 points                     | ]                                      |
|               | E.    | Project Schedule                                                              | 5 points                     | J                                      |
| Sub-<br>TOTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 51                                     |

# FINAL OFFERS FEBRUARY 15, 2012

|              | EVALUATION CRITERIA                                                                                                                                                                                | Maximum<br>possible<br>score                          | SCORE                                                                                                          |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Part &       | 5 - Price Proposal:                                                                                                                                                                                | n andra franka ana ang ang ang ang ang ang ang ang an | and and a second which a second s |
|              | Form V-1 - Proposal Price <b>(separately sealed envelope</b> )<br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) | 40 points                                             |                                                                                                                |
| Sub-<br>Tota |                                                                                                                                                                                                    | 40 points                                             | 32                                                                                                             |
| F            | Proposal Security <b>(separately sealed envelope)</b><br>Form V-2A – Bid Bond, or<br>Form V-2B - Irrevocable Letter of Credit                                                                      | Compliant/<br>Non-Compliant                           |                                                                                                                |
| F            | Form V-3 - Receipt of Addenda                                                                                                                                                                      | Compliant/<br>Non-Compliant                           |                                                                                                                |
| F            | Form V-4 - Interests and Gratuities Certification                                                                                                                                                  | Compliant/<br>Non-Compliant                           |                                                                                                                |
| F            | Form V-5 - Campaign Contribution Disclosure Form                                                                                                                                                   | Compliant/<br>Non-Compliant                           |                                                                                                                |
| F            | orm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                         | Compliant/<br>Non-Compliant                           | ··· · · · · · · · · · · · · · · · · ·                                                                          |
| F            | orm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                           | Compliant/<br>Non-Compliant                           | · · · · · • · ·                                                                                                |
| F            | orm V-8 - List of Principals and Officers                                                                                                                                                          | Compliant/<br>Non-Compliant                           |                                                                                                                |
|              | orm V-9 - FTA Certification Regarding Debarment,<br>suspension, Ineligibility and Voluntary Exclusion                                                                                              | Compliant/<br>Non-Compliant                           | · · · · ·                                                                                                      |
|              | orm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                           | Compliant/<br>Non-Compliant                           |                                                                                                                |
|              | orm V-11 - FTA Certification Regarding Clean Air Act and<br>ederal Water Pollution Control Act                                                                                                     | Compliant/<br>Non-Compliant                           |                                                                                                                |
| F            | orm V-12 - FTA Buy America Certificate                                                                                                                                                             | Compliant/<br>Non-Compliant                           |                                                                                                                |
|              | orm V-13 - Certificate of Compliance With Drug and<br>Icohol Testing and Drug-Free Workplace Act                                                                                                   | Compliant/<br>Non-Compliant                           |                                                                                                                |
| OTAL         | TOTAL EVALUATION SCORE                                                                                                                                                                             | 100 points                                            | 83                                                                                                             |

#### Scoring Range

| Excellent            | Good    |           | Eelow Average | - Unsatisfactory |
|----------------------|---------|-----------|---------------|------------------|
| 10                   | 7       | 5         | 3             | 0                |
| Rating Performed By: |         | (I=fri(1) | (ed Tylame)   |                  |
|                      | 2/15/12 |           |               |                  |

(Date) FINAL OFFERS FEBRUARY 15, 2012

## RFP No.: 2010043

PROPOSAL EVALUATION FORM

Contractor's Name: ALSTOM

|              |       | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE                                   |
|--------------|-------|-------------------------------------------------------------------------------|------------------------------|-----------------------------------------|
| Letter       | of Ti | ransmittal                                                                    | Compliant/Non-<br>Compliant  |                                         |
| Part 1       | - Th  | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    | ······································  |
|              | А.    | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 4                                       |
|              | В.    | Subsystem Suppliers                                                           | 5 points                     | 3                                       |
| Part 2 -     | Ref   | erenced Projects:                                                             | 3 points                     | 2                                       |
| Part 3 -     | Pro   | ject Staffing and Experience:                                                 | 12 points                    |                                         |
|              | A.    | Staffing Plan and Resumes                                                     | 6 points                     | Ц                                       |
|              | В.    | Project Manager                                                               | 6 points                     | 2                                       |
| Part 4 -     | Tec   | hnical Submittal:                                                             | 35 points                    | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |
|              | Α.    | Approach to Accomplish the Work                                               | 9 points                     | U                                       |
|              | В.    | Quality Control                                                               | 5 points                     |                                         |
|              | C.    | Compliance with Technical Specifications                                      | 8 points                     | 1                                       |
|              | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |                                         |
|              |       | Auxiliary Power System                                                        | 3 points                     | 1                                       |
|              |       | Communications System                                                         | 3 points                     | 1                                       |
|              |       | Event Recorder System                                                         | 2 points                     |                                         |
|              | E.    | Project Schedule                                                              | 5 points                     | Ч                                       |
| Sub-<br>OTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 38                                      |

# FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

|               |                                                                                                                                                                                                   | . Maximum<br>possible<br>score | SCORE |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------|
| Part 5        | - Price Proposal:                                                                                                                                                                                 |                                |       |
| F             | Form V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) |                                |       |
| Sub-<br>Total | DDICE SCODE                                                                                                                                                                                       | 40 points                      | 40    |
| F             | Proposal Security <b>(separately sealed envelope)</b><br>Form V-2A – Bid Bond, or<br>Form V-2B - Irrevocable Letter of Credit                                                                     | Compliant/<br>Non-Compliant    |       |
| F             | orm V-3 - Receipt of Addenda                                                                                                                                                                      | Compliant/<br>Non-Compliant    |       |
| F             | Form V-4 - Interests and Gratuities Certification                                                                                                                                                 |                                |       |
| F             | orm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                   | Compliant/<br>Non-Compliant    |       |
| F             | orm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                        | Compliant/<br>Non-Compliant    |       |
| F             | orm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                          | Compliant/<br>Non-Compliant    |       |
| F             | orm V-8 - List of Principals and Officers                                                                                                                                                         | Compliant/<br>Non-Compliant    |       |
|               | orm V-9 - FTA Certification Regarding Debarment,<br>uspension, Ineligibility and Voluntary Exclusion                                                                                              | Compliant/<br>Non-Compliant    |       |
| Fo            | orm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant    |       |
|               | orm V-11 - FTA Certification Regarding Clean Air Act and<br>ederal Water Pollution Control Act                                                                                                    | Compliant/<br>Non-Compliant    |       |
| Fo            | orm V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant    |       |
|               | orm V-13 - Certificate of Compliance With Drug and<br>cohol Testing and Drug-Free Workplace Act                                                                                                   | Compliant/<br>Non-Compliant    |       |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                            | 100 points                     | 78    |

## Scoring Range

Average Excellent Good Below Average Unsatisfactory 10 7 5 0 3 Rating Performed By: nneû Name) 2/15/12 (Date) FINAL OFFERS FEBRUARY 15, 2012

## Sue Robison - UTDC comments

| From:    |                            |
|----------|----------------------------|
| To:      | Colleen Elder; Sue Robison |
| Date:    | 2/16/2012 3:59 PM          |
| Subject: | UTDC comments              |

Sorry for the late reply, but here are my comments. Let me know if you have any questions about anything.

#### **Siemens**

Siemens demonstrates a clear understanding of the project. The information from them was detailed and provided adequate information on the general project plan, work flow, and specific subsystems. The project team has the education and experience commensurate with a project of this size and scope. Siemens has local support and expertise to quickly address any engineering issues that may arise.

#### Alstom

Alstom's proposal is too general and does not provide enough detail to demonstrate that they have a clear understanding of the project. The up front costs in their pricing is not in line with RT's funding plan. The project team does not have the depth that Siemen's proposed team does.

## RFP No.: 2010043

PROPOSAL EVALUATION FORM

Contractor's Name: ALSTOM

|              | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE |
|--------------|-------------------------------------------------------------------------------|------------------------------|-------|
| Letter of 1  | ransmittal                                                                    | Compliant/Non-<br>Compliant  |       |
| Part 1 - Ti  | ne Firm; Major Subsystem Subcontractors:                                      | 10 points                    | - 9   |
| A            | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 5     |
| B            | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 4     |
| Part 2 - Re  | ferenced Projects:                                                            | 3 points                     | 27    |
| Part 3 - Pro | oject Staffing and Experience:                                                | 12 points                    | - 27  |
| A.           | Staffing Plan and Resumes                                                     | 6 points                     | 3     |
| В.           | Project Manager                                                               | 6 points                     | 0     |
| Part 4 - Tee | chnical Submittal:                                                            | 35 points                    | 3     |
| A.           | Approach to Accomplish the Work                                               | 9 points                     | 6     |
| В.           | Quality Control                                                               | 5 points                     | 5     |
| C.           | Compliance with Technical Specifications                                      | 8 points                     | 6     |
| D.           | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |       |
|              | Auxiliary Power System                                                        | 3 points                     | 3     |
|              | Communications System                                                         | 3 points                     | 3     |
|              | Event Recorder System                                                         | 2 points                     | 3     |
| E.           | Project Schedule                                                              | 5 points                     | 5     |
| Sub-<br>OTAL | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 44    |

# FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011



|               | EVALUATION CRITERIA                                                                                                                                                                                     | Maximum<br>possible<br>score | SCORE                                                 |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------|
| Part 5        | - Price Proposal:                                                                                                                                                                                       | NUCLASSING STREET STATES     | a na antara sa ang ang ang ang ang ang ang ang ang an |
|               | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br><u>RT-determined costs for off-site work)</u> |                              | 40                                                    |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                             | 40 points                    |                                                       |
| Fo            | oposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                               | Compliant/<br>Non-Compliant  | С                                                     |
| Fc            | orm V-3 - Receipt of Addenda                                                                                                                                                                            | Compliant/<br>Non-Compliant  | · C                                                   |
| Fo            | orm V-4 - Interests and Gratuities Certification                                                                                                                                                        | Compliant/<br>Non-Compliant  | Û                                                     |
| Fo            | orm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                         | Compliant/<br>Non-Compliant  | С                                                     |
| Fo            | rm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                               | Compliant/<br>Non-Compliant  | С                                                     |
| Fo            | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                                 | Compliant/<br>Non-Compliant  | C                                                     |
| Fo            | rm V-8 - List of Principals and Officers                                                                                                                                                                | Compliant/<br>Non-Compliant  | C                                                     |
|               | rm V-9 - FTA Certification Regarding Debarment, spension, Ineligibility and Voluntary Exclusion                                                                                                         | Compliant/<br>Non-Compliant  | С                                                     |
| Fo            | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                                 | Compliant/<br>Non-Compliant  | С                                                     |
|               | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                                            | Compliant/<br>Non-Compliant  | С                                                     |
| Fo            | rm V-12 - FTA Buy America Certificate                                                                                                                                                                   | Compliant/<br>Non-Compliant  | C                                                     |
|               | rm V-13 - Certificate of Compliance With Drug and<br>ohol Testing and Drug-Free Workplace Act                                                                                                           | Compliant/<br>Non-Compliant  | С                                                     |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                                  | 100 points                   | 84                                                    |

#### Scoring Range

| Excellent | Good | Average | Below Average | <b>Unsatisfactory</b> |
|-----------|------|---------|---------------|-----------------------|
| 10        | 7    | 5       | 3             | 0                     |

Rating Performed By:

(Printed Name)

(Date) (Signature) FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

PROPOSAL REQUIREMENTS

PAGE 26

Strengths/Weaknesses: ALSTOM

ng does not present as mych experience. DETHIC TO THEIR PROPOSAL, NO. REALLY CONVINCED it they NOT understand OUR Technical Specifications

# FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

#### RFP No.: 2010043

PROPOSAL EVALUATION FORM

# Contractor's Name: SIEMENS INDUSTRY, INC.

|              |       | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE   |
|--------------|-------|-------------------------------------------------------------------------------|------------------------------|---------|
| Letter       | of T  | ransmittal                                                                    | Compliant/Non-<br>Compliant  |         |
| Part 1       | - Th  | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    | Q       |
|              | A.    | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 5       |
|              | В.    | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 4       |
| Part 2       | - Ref | erenced Projects:                                                             | 3 points                     | 27      |
| Part 3       | - Pro | ject Staffing and Experience:                                                 | 12 points                    | <br>  ( |
|              | Α.    | Staffing Plan and Resumes                                                     | 6 points                     | 5       |
|              | B.    | Project Manager                                                               | 6 points                     | 5       |
| Part 4 -     | Тес   | hnical Submittal:                                                             | 35 points                    |         |
|              | Α.    | Approach to Accomplish the Work                                               | 9 points                     | 8       |
|              | В.    | Quality Control                                                               | 5 points                     | 5       |
|              | C.    | Compliance with Technical Specifications                                      | 8 points                     | 5       |
|              | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |         |
|              |       | Auxiliary Power System                                                        | 3 points                     | M       |
|              |       | Communications System                                                         | • 3 points                   | 3       |
|              |       | Event Recorder System                                                         | 2 points                     | 2       |
|              | E.    | Project Schedule                                                              | 5 points                     | 5       |
| Sub-<br>OTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 52      |

# FINAL OFFERS FEBRUARY 15, 2012



|               | EVALUATION CRITERIA                                                                                                                                                                              | Maximum<br>possible<br>score | SCORE    |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------|
| Part 5        | - Price Proposal:                                                                                                                                                                                |                              |          |
| F             | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) |                              | 32       |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                      | 40 points                    |          |
| Fo            | oposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                        | Compliant/<br>Non-Compliant  | С        |
| Fo            | orm V-3 - Receipt of Addenda                                                                                                                                                                     | Compliant/<br>Non-Compliant  | 0        |
| Fc            | orm V-4 - Interests and Gratuities Certification                                                                                                                                                 | Compliant/<br>Non-Compliant  | C        |
| Fc            | orm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                  | Compliant/<br>Non-Compliant  | C        |
| Fo            | rm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                        | Compliant/<br>Non-Compliant  | C        |
| Fo            | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                          | Compliant/<br>Non-Compliant  | <u>C</u> |
| Fo            | rm V-8 - List of Principals and Officers                                                                                                                                                         | Compliant/<br>Non-Compliant  | C        |
|               | rm V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                               | Compliant/<br>Non-Compliant  | C        |
| Fo            | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant  | C        |
|               | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                                     | Compliant/<br>Non-Compliant  | C        |
| Fo            | rm V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant  | С        |
|               | rm V-13 - Certificate of Compliance With Drug and<br>sohol Testing and Drug-Free Workplace Act                                                                                                   | Compliant/<br>Non-Compliant  | С        |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                           | 100 points                   | 84       |

Scoring Range

| Excellent | Good | Average | Below Average | Unsatisfactory |
|-----------|------|---------|---------------|----------------|
| 10        | 7    | 5       | 3             | 0              |

Rating Performed By:

(Printed Name)

(Date) (Signature) FINAL OFFERS FEBRUARY 15, 2012



Strengths/Weaknesses: SIEMENS INDUSTRY, INC.

DETAILED PROPOSAL Presented. Loca y situated and past history amillar to the presented 7 C Th

# **FINAL OFFERS FEBRUARY 15, 2012**

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

## RFP No.: 2010043

## PROPOSAL EVALUATION FORM

# Contractor's Name: SIEMENS INDUSTRY, INC.

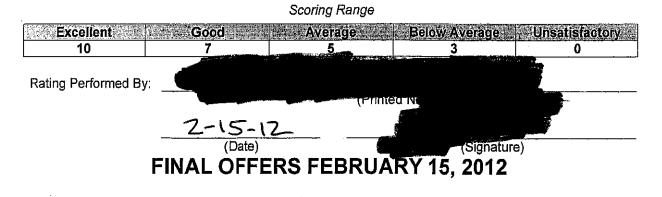
|              |        | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE                                |
|--------------|--------|-------------------------------------------------------------------------------|------------------------------|--------------------------------------|
| Letter       | of Tr  | ransmittal                                                                    | Compliant/Non-<br>Compliant  | NATA ANG BERNET ADOL NATA AN ANG ANG |
| Part 1       | - Th   | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    |                                      |
|              | А.     | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 5                                    |
|              | В.     | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 4                                    |
| Part 2 -     | Ref    | erenced Projects:                                                             | 3 points                     | 3                                    |
| Part 3 -     | Pro    | ject Staffing and Experience:                                                 | 12 points                    |                                      |
|              | Α.     | Staffing Plan and Resumes                                                     | 6 points                     | 6                                    |
|              | В.     | Project Manager                                                               | 6 points                     | 6                                    |
| Part 4 -     | Tec    | hnical Submittal:                                                             | 35 points                    | ¥                                    |
|              | Α.     | Approach to Accomplish the Work                                               | 9 points                     | 3                                    |
|              | В.     | Quality Control                                                               | 5 points                     | 4                                    |
|              | C.     | Compliance with Technical Specifications                                      | 8 points                     | 7                                    |
|              | D.     | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              | /                                    |
|              |        | Auxiliary Power System                                                        | 3 points                     | 3                                    |
|              |        | Communications System                                                         | 3 points                     | 2                                    |
|              |        | Event Recorder System                                                         | 2 points                     | 2                                    |
|              | Ε.     | Project Schedule                                                              | 5 points                     | 3                                    |
| Sub-<br>OTAL | ······ | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 53                                   |

# **FINAL OFFERS FEBRUARY 15, 2012**



这个时期和马格

|               | EVALUATION CRITERIA                                                                                                                                                                             | Maximum<br>possible<br>score | SCORE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part 5 -      | Price Proposal:                                                                                                                                                                                 |                              | <ul> <li>Statistics of the state of the</li></ul> |
|               | rm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) |                              | 32_                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                     | 40 points                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Fo            | oposal Security <b>(separately sealed envelope)</b><br>rm V-2A – Bid Bond, or<br>rm V-2B - Irrevocable Letter of Credit                                                                         | Compliant/<br>Non-Compliant  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Fo            | rm V-3 - Receipt of Addenda                                                                                                                                                                     | Compliant/<br>Non-Compliant  | •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Foi           | rm V-4 - Interests and Gratuities Certification                                                                                                                                                 | Compliant/<br>Non-Compliant  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| For           | rm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                  | Compliant/<br>Non-Compliant  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| For           | rm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                       | Compliant/<br>Non-Compliant  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| For           | m V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                          | Compliant/<br>Non-Compliant  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| For           | m V-8 - List of Principals and Officers                                                                                                                                                         | Compliant/<br>Non-Compliant  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|               | m V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                               | Compliant/<br>Non-Compliant  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| For           | m V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|               | m V-11 - FTA Certification Regarding Clean Air Act and<br>leral Water Pollution Control Act                                                                                                     | Compliant/<br>Non-Compliant  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| For           | m V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|               | m V-13 - Certificate of Compliance With Drug and<br>ohol Testing and Drug-Free Workplace Act                                                                                                    | Compliant/<br>Non-Compliant  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                          | 100 points                   | 85                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |



## RFP No.: 2010043

PROPOSAL EVALUATION FORM

Contractor's Name: ALSTOM

|              |       | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE |
|--------------|-------|-------------------------------------------------------------------------------|------------------------------|-------|
| Letter       | of T  | ransmittal                                                                    | Compliant/Non-<br>Compliant  |       |
| Part 1       | - Th  | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    |       |
|              | A.    | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 2     |
|              | В.    | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 3     |
| Part 2       | - Ref | erenced Projects:                                                             | 3 points                     | 2     |
| Part 3       | - Pro | ject Staffing and Experience:                                                 | 12 points                    |       |
|              | A.    | Staffing Plan and Resumes                                                     | 6 points                     | 2     |
|              | В.    | Project Manager                                                               | 6 points                     | 1     |
| Part 4 -     | - Tec | hnical Submittal:                                                             | 35 points                    |       |
| -            | Α.    | Approach to Accomplish the Work                                               | 9 points                     | 4     |
|              | В.    | Quality Control                                                               | 5 points                     | 3     |
|              | C.    | Compliance with Technical Specifications                                      | 8 points                     | 4     |
|              | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              | ţ     |
|              |       | Auxiliary Power System                                                        | 3 points                     | 2     |
|              |       | Communications System                                                         | 3 points                     | 2     |
|              |       | Event Recorder System                                                         | 2 points                     | 2     |
|              | E.    | Project Schedule                                                              | 5 points                     | 223   |
| Sub-<br>OTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 30    |

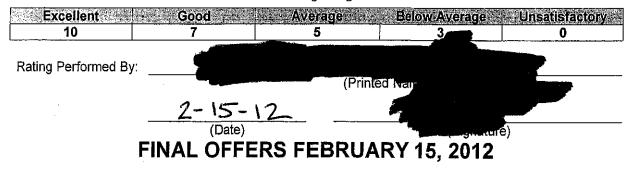
# FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

PAGE 25

|               | EVALUATION CRITERIA                                                                                                                                                                               | Maximum<br>possible<br>score | SCORE |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------|
| Part 5        | - Price Proposal:                                                                                                                                                                                 |                              |       |
| F             | Form V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) |                              | 40    |
| Sub-<br>Total |                                                                                                                                                                                                   | 40 points                    |       |
| F             | roposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                        | Compliant/<br>Non-Compliant  |       |
| F             | orm V-3 - Receipt of Addenda                                                                                                                                                                      | Compliant/<br>Non-Compliant  | _     |
| F             | orm V-4 - Interests and Gratuities Certification                                                                                                                                                  | Compliant/<br>Non-Compliant  |       |
| F             | orm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                   | Compliant/<br>Non-Compliant  |       |
| F             | orm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                        | Compliant/<br>Non-Compliant  |       |
| F             | orm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                          | Compliant/<br>Non-Compliant  |       |
| Fo            | orm V-8 - List of Principals and Officers                                                                                                                                                         | Compliant/<br>Non-Compliant  |       |
|               | orm V-9 - FTA Certification Regarding Debarment,<br>uspension, Ineligibility and Voluntary Exclusion                                                                                              | Compliant/<br>Non-Compliant  |       |
| Fo            | orm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant  |       |
|               | orm V-11 - FTA Certification Regarding Clean Air Act and<br>ederal Water Pollution Control Act                                                                                                    | Compliant/<br>Non-Compliant  |       |
| Fc            | orm V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant  |       |
|               | orm V-13 - Certificate of Compliance With Drug and<br>cohol Testing and Drug-Free Workplace Act                                                                                                   | Compliant/<br>Non-Compliant  |       |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                            | 100 points                   | 70    |

## Scoring Range



## Sue Robison - UTDC Evaluation Commments

| From:    |                           |
|----------|---------------------------|
| To:      | Sue Robison               |
| Date:    | 2/16/2012 4:56 PM         |
| Subject: | UTDC Evaluation Commments |

#### SIEMENS:

Siemens has invested a great deal of time during the development of the RFP and during the negotiations. This was demonstrated by the detail of the technical questions that were raise during these periods. The staffing including the Project Manager has provided the experience needed to accomplish this refurbishment contract and has also proven their ability to perform this type of task with the Communication Retrofit Project. Also being local will benefit the project with the minimum amount of overhead needed to accomplish this task.

#### ALSTOM:

Although Alstom is a large and capable company, the experience working with light rail vehicles raises concerns. The lack of detail and technical questions provided by Alstom's proposal and during negotiation was close to zero, which can potential generate the need for change orders because of the lack of understanding the details needed for this refurbishment. The Project Manager also raised concerns along with his credentials and actual experience with light rail vehicles. Helicopters was his specialty. Also it was stated that the team would be built up once awarded which also causes the concern of not having the in house expertise. It was also acknowledge that the lack of support that Alstom currently provides with the existing products is currently below standards, which will potential cause problems for RT if Alstom is the Car Builder.

## RFP No.: 2010043

# PROPOSAL EVALUATION FORM

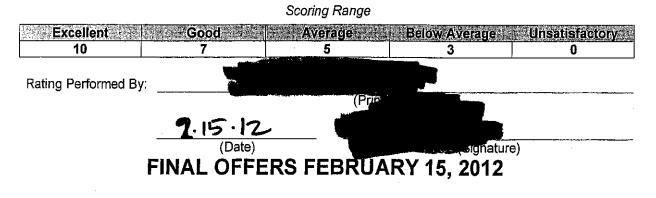
# Contractor's Name: SIEMENS INDUSTRY, INC.

|                       |      | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE |
|-----------------------|------|-------------------------------------------------------------------------------|------------------------------|-------|
| Letter of Transmittal |      |                                                                               | Compliant/Non-<br>Compliant  |       |
| Part 1                | - Th | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    | ଚ     |
|                       | А.   | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 4     |
|                       | В.   | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 4     |
| Part 2 -              | Ref  | erenced Projects:                                                             | 3 points                     | 1     |
| Part 3 ·              | Pro  | ject Staffing and Experience:                                                 | 12 points                    | 10    |
|                       | A.   | Staffing Plan and Resumes                                                     | 6 points                     | 5     |
|                       | В.   | Project Manager                                                               | 6 points                     | 5     |
| Part 4 -              | Тес  | hnical Submittal:                                                             | 35 points                    | 26    |
|                       | Α.   | Approach to Accomplish the Work                                               | 9 points                     | 7     |
|                       | В.   | Quality Control                                                               | 5 points                     | 3     |
|                       | C.   | Compliance with Technical Specifications                                      | 8 points                     | 7     |
|                       | D.   | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |       |
|                       |      | Auxiliary Power System                                                        | 3 points                     | 2     |
|                       |      | Communications System                                                         | 3 points                     | 2     |
|                       |      | Event Recorder System                                                         | 2 points                     | 1     |
|                       | E.   | Project Schedule                                                              | 5 points                     | 4     |
| Sub-                  |      | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 45    |

# FINAL OFFERS FEBRUARY 15, 2012

PAGE 25

|               | EVALUATION CRITERIA                                                                                                                                                                              | Maximum<br>possibl <del>e</del><br>score | SCORE    |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------|
| Part 5        | - Price Proposal:                                                                                                                                                                                |                                          |          |
| F             | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) |                                          | 32<br>32 |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                      | 40 points                                | 32       |
| F             | roposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                       | Compliant/<br>Non-Compliant              |          |
| F             | orm V-3 - Receipt of Addenda                                                                                                                                                                     | Compliant/<br>Non-Compliant              | ~        |
| Fo            | orm V-4 - Interests and Gratuities Certification                                                                                                                                                 | Compliant/<br>Non-Compliant              | V        |
| Fo            | orm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                  | Compliant/<br>Non-Compliant              | ~        |
| Fo            | orm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                       | Compliant/<br>Non-Compliant              | V        |
| Fo            | orm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                         | Compliant/<br>Non-Compliant              | V        |
| Fc            | orm V-8 - List of Principals and Officers                                                                                                                                                        | Compliant/<br>Non-Compliant              | V        |
|               | rm V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                               | Compliant/<br>Non-Compliant              | ~        |
|               | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant              | ~        |
|               | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                                     | Compliant/<br>Non-Compliant              | ~        |
| Fo            | rm V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant              | V        |
|               | rm V-13 - Certificate of Compliance With Drug and<br>schol Testing and Drug-Free Workplace Act                                                                                                   | Compliant/<br>Non-Compliant              |          |
|               |                                                                                                                                                                                                  |                                          |          |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                           | 100 points                               | 77       |



Strengths/Weaknesses: SIEMENS INDUSTRY, INC.

nce with the PM. พร Locale ï۲S resources readily PIMS. available = H appears that significant effort and was given to RT questions. res Better that Siemens has a anding of the scope.

# **FINAL OFFERS FEBRUARY 15, 2012**

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

## RFP No.: 2010043

PROPOSAL EVALUATION FORM

# Contractor's Name: ALSTOM

|              |       | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE |
|--------------|-------|-------------------------------------------------------------------------------|------------------------------|-------|
| Letter       | of T  | ransmittal                                                                    | Compliant/Non-<br>Compliant  |       |
| Part 1       | - Th  | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    | 5     |
|              | A.    | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 2     |
|              | В.    | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 3     |
| Part 2       | - Ref | erenced Projects:                                                             | 3 points                     | 2     |
| Part 3       | - Pro | ject Staffing and Experience:                                                 | 12 points                    | 5     |
|              | Α.    | Staffing Plan and Resumes                                                     | 6 points                     | 3     |
|              | В.    | Project Manager                                                               | 6 points                     | 2     |
| Part 4       | - Tec | hnical Submittal:                                                             | 35 points                    | 21    |
|              | Α.    | Approach to Accomplish the Work                                               | 9 points                     | 5     |
|              | B.    | Quality Control                                                               | 5 points                     | 3     |
|              | C.    | Compliance with Technical Specifications                                      | 8 points                     | 6     |
|              | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |       |
|              |       | Auxiliary Power System                                                        | 3 points                     | 1     |
|              |       | Communications System                                                         | 3 points                     | 2     |
|              |       | Event Recorder System                                                         | 2 points                     | 1     |
|              | E.    | Project Schedule                                                              | 5 points                     | 3     |
| Sub-<br>OTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 33    |

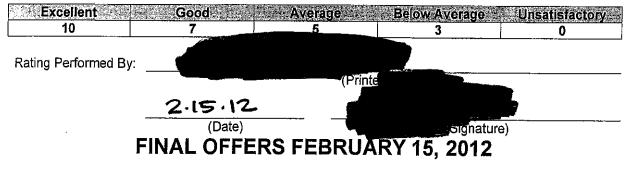
# FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011



|                                                   |                                                                                                                                                                                                  | Maximum<br>possible<br>score               | SCORE |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-------|
| Part 5                                            | - Price Proposal:                                                                                                                                                                                | <ul> <li>Machine Control (1997)</li> </ul> |       |
|                                                   | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) |                                            | 40    |
| Sub-<br>Total                                     | PRICE SCORE                                                                                                                                                                                      | 40 points                                  | 40    |
| Fo                                                | roposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                       | Compliant/<br>Non-Compliant                | r     |
| Fo                                                | orm V-3 - Receipt of Addenda                                                                                                                                                                     | Compliant/<br>Non-Compliant                | レ     |
| Form V-4 - Interests and Gratuities Certification |                                                                                                                                                                                                  | Compliant/<br>Non-Compliant                | ~     |
| Form V-5 - Campaign Contribution Disclosure Form  |                                                                                                                                                                                                  | Compliant/<br>Non-Compliant                | ~     |
|                                                   |                                                                                                                                                                                                  | Compliant/<br>Non-Compliant                | ~     |
| Fo                                                | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                          | Compliant/<br>Non-Compliant                | 1     |
| Fo                                                | rm V-8 - List of Principals and Officers                                                                                                                                                         | Compliant/<br>Non-Compliant                | ~     |
|                                                   | rm V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                               | Compliant/<br>Non-Compliant                | V     |
|                                                   | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant                | V     |
|                                                   | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                                     | Compliant/<br>Non-Compliant                | ~     |
| Foi                                               | rm V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant                | V     |
|                                                   | m V-13 - Certificate of Compliance With Drug and<br>ohol Testing and Drug-Free Workplace Act                                                                                                     | Compliant/<br>Non-Compliant                | ~     |
| OTAL                                              | TOTAL EVALUATION SCORE                                                                                                                                                                           | 100 points                                 | 73    |





Strengths/Weaknesses: ALSTOM

Very concerned about PM background and education certification. It appears that Alstom will be hiring the their team from scratch. prity of ma appear to be a lot of detail There didn't responses to RT questions in the ed to flip flop on the

# **FINAL OFFERS FEBRUARY 15, 2012**

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

## RFP No.: 2010043

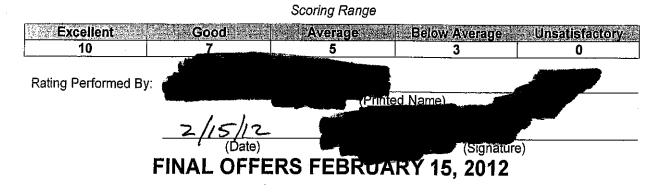
PROPOSAL EVALUATION FORM

# Contractor's Name: SIEMENS INDUSTRY, INC.

|              |       | EVALUATION CRITERIA                                                           | Maximum -<br>possible                | SCORE |
|--------------|-------|-------------------------------------------------------------------------------|--------------------------------------|-------|
| Letter       | of T  | ransmittal                                                                    | Score<br>Compliant/Non-<br>Compliant |       |
| Part 1       | - Th  | e Firm; Major Subsystem Subcontractors:                                       | 10 points                            |       |
|              | 1     | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                             | 4.5   |
|              | B.    | Subsystem Suppliers                                                           | 5 points                             | 5.0   |
| Part 2       | - Ref | erenced Projects:                                                             | 3 points                             | 2.5   |
| Part 3       | - Pro | ject Staffing and Experience:                                                 | 12 points                            |       |
|              | A.    | Staffing Plan and Resumes                                                     | 6 points                             | 6.0   |
|              | В.    | Project Manager                                                               | 6 points                             | 6.0   |
| Part 4 -     | Тес   | hnical Submittal:                                                             | 35 points                            |       |
|              | Α.    | Approach to Accomplish the Work                                               | 9 points                             | B.D   |
|              | В.    | Quality Control                                                               | 5 points                             | 4.0   |
|              | C.    | Compliance with Technical Specifications                                      | 8 points                             | 7.0   |
|              | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                                      |       |
|              |       | Auxiliary Power System                                                        | 3 points                             | 3.0   |
|              |       | Communications System                                                         | 3 points                             | 3.0   |
|              |       | Event Recorder System                                                         | 2 points                             | 2.0   |
|              | E.    | Project Schedule                                                              | 5 points                             | 4.0   |
| Sub-<br>OTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                            | 55.0  |

# **FINAL OFFERS FEBRUARY 15, 2012**

|               | EVALUATIÓN CRITERIA                                                                                                                                                                              | Maximum<br>possible<br>score | SCORE       |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------|
| Part 5        | - Price Proposal:                                                                                                                                                                                |                              |             |
|               | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) |                              |             |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                      | 40 points                    | 32          |
| Fo            | roposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                       | Compliant/<br>Non-Compliant  |             |
| Fo            | orm V-3 - Receipt of Addenda                                                                                                                                                                     | Compliant/<br>Non-Compliant  |             |
| Fo            | orm V-4 - Interests and Gratuities Certification                                                                                                                                                 | Compliant/<br>Non-Compliant  |             |
| Fc            | orm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                  | Compliant/<br>Non-Compliant  |             |
| Fo            | orm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                       | Compliant/<br>Non-Compliant  |             |
| Fo            | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                          | Compliant/<br>Non-Compliant  |             |
| Fo            | rm V-8 - List of Principals and Officers                                                                                                                                                         | Compliant/<br>Non-Compliant  | <u> </u>    |
|               | rm V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                               | Compliant/<br>Non-Compliant  | <del></del> |
| Fo            | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant  |             |
|               | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                                     | Compliant/<br>Non-Compliant  |             |
| Fo            | rm V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant  |             |
|               | rm V-13 - Certificate of Compliance With Drug and<br>schol Testing and Drug-Free Workplace Act                                                                                                   | Compliant/<br>Non-Compliant  |             |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                           | 100 points                   | 81          |



Strengths/Weaknesses: SIEMENS INDUSTRY, INC.

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# **FINAL OFFERS FEBRUARY 15, 2012**

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

### UTDC LIGHT RAIL VEHICLE REFURBISHMENT

#### RFP No.: 2010043

PROPOSAL EVALUATION FORM

Contractor's Name: ALSTOM

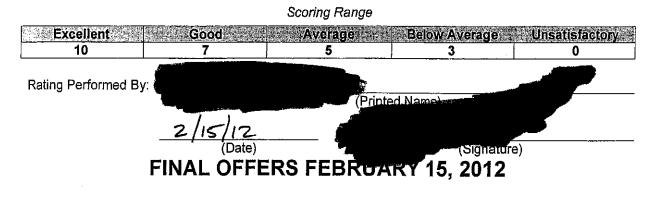
|              |       | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE                                 |
|--------------|-------|-------------------------------------------------------------------------------|------------------------------|---------------------------------------|
| Letter       | of Ti | ransmittal                                                                    | Compliant/Non-<br>Compliant  |                                       |
| Part 1       | - Th  | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    | · · · · · · · · · · · · · · · · · · · |
|              | А.    | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 3.0                                   |
|              | В.    | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 3.5                                   |
| Part 2       | Ref   | erenced Projects:                                                             | 3 points                     | 2.5                                   |
| Part 3 -     | Pro   | ject Staffing and Experience:                                                 | 12 points                    |                                       |
|              | Α.    | Staffing Plan and Resumes                                                     | 6 points                     | 2.5                                   |
|              | В.    | Project Manager                                                               | 6 points                     | 3.0                                   |
| Part 4 -     | Tec   | hnical Submittal:                                                             | 35 points                    | <del></del>                           |
|              | А.    | Approach to Accomplish the Work                                               | 9 points                     | 3.0                                   |
|              | В.    | Quality Control                                                               | 5 points                     | 2.0                                   |
|              | C.    | Compliance with Technical Specifications                                      | 8 points                     | 5.0                                   |
|              | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              | ~                                     |
|              |       | Auxiliary Power System                                                        | 3 points                     | 1.5                                   |
|              |       | Communications System                                                         | 3 points                     | 3.0                                   |
|              |       | Event Recorder System                                                         | 2 points                     | 2.0                                   |
|              | E.    | Project Schedule                                                              | 5 points                     | 3.5                                   |
| Sub-<br>OTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 34.5                                  |

## **FINAL OFFERS FEBRUARY 15, 2012**

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

PAGE 25

|               | EVALUATION CRITERIA                                                                                                                                                                              | Maximum<br>possible<br>score | SCORE |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------|
| Part 5        | - Price Proposal:                                                                                                                                                                                |                              |       |
| Fa            | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) |                              |       |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                      | 40 points                    | 40    |
| Fo            | oposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                        | Compliant/<br>Non-Compliant  |       |
| Fo            | orm V-3 - Receipt of Addenda                                                                                                                                                                     | Compliant/<br>Non-Compliant  |       |
| Fo            | Form V-4 - Interests and Gratuities Certification                                                                                                                                                |                              |       |
| Fo            | rm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                   | Compliant/<br>Non-Compliant  |       |
| Fo            | rm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                        | Compliant/<br>Non-Compliant  |       |
| Fo            | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                          | Compliant/<br>Non-Compliant  |       |
| Fo            | rm V-8 - List of Principals and Officers                                                                                                                                                         | Compliant/<br>Non-Compliant  |       |
|               | rm V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                               | Compliant/<br>Non-Compliant  |       |
| Fo            | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant  |       |
|               | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                                     | Compliant/<br>Non-Compliant  |       |
| Foi           | rm V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant  |       |
|               | rm V-13 - Certificate of Compliance With Drug and ohol Testing and Drug-Free Workplace Act                                                                                                       | Compliant/<br>Non-Compliant  |       |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                           | 100 points                   | 74,5  |



Strengths/Weaknesses: ALSTOM

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## FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

PROPOSAL REQUIREMENTS

### UTDC LIGHT RAIL VEHICLE REFURBISHMENT

#### RFP No.: 2010043

#### PROPOSAL EVALUATION FORM

## Contractor's Name: SIEMENS INDUSTRY, INC.

|               |       | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE      |
|---------------|-------|-------------------------------------------------------------------------------|------------------------------|------------|
| Letter        | of Tı | ransmittal                                                                    | Compliant/Non-<br>Compliant  |            |
| Part 1        | - Th  | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    |            |
|               | A.    | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 5          |
|               | В.    | Subsystem Suppliers                                                           | 5 points                     | 4          |
| Part 2 -      | Ref   | erenced Projects:                                                             | 3 points                     | え          |
| Part 3 -      | Pro   | ject Staffing and Experience:                                                 | 12 points                    |            |
|               | Α.    | Staffing Plan and Resumes                                                     | 6 points                     | 6          |
|               | В.    | Project Manager                                                               | 6 points                     | 6          |
| Part 4 -      | Tec   | hnical Submittal:                                                             | 35 points                    | <b>(</b> / |
|               | A.    | Approach to Accomplish the Work                                               | 9 points                     | 7          |
|               | В.    | Quality Control                                                               | 5 points                     | 5          |
|               | C.    | Compliance with Technical Specifications                                      | 8 points                     | 6          |
|               | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              | ~~~        |
|               |       | Auxiliary Power System                                                        | 3 points                     | 3          |
|               |       | Communications System                                                         | 3 points                     | 3          |
|               |       | Event Recorder System                                                         | 2 points                     | 2          |
|               | E.    | Project Schedule                                                              | 5 points                     | 4          |
| Sub-<br>IOTAL | ,d    | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 53         |

## **FINAL OFFERS FEBRUARY 15, 2012**

|               | EVALUATION CRITERIA                                                                                                                                                                              | Maximum<br>possible<br>score | SCORE                                                                                                          |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------|
| Part 5        | - Price Proposal:                                                                                                                                                                                |                              | a a second a second |
| F             | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) | 40 points                    |                                                                                                                |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                      | 40 points                    | 32                                                                                                             |
| F             | roposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                       | Compliant/<br>Non-Compliant  | <                                                                                                              |
| F             | orm V-3 - Receipt of Addenda                                                                                                                                                                     | Compliant/<br>Non-Compliant  | C                                                                                                              |
| Fo            | orm V-4 - Interests and Gratuities Certification                                                                                                                                                 | Compliant/<br>Non-Compliant  | ٢                                                                                                              |
| Fo            | orm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                  | Compliant/<br>Non-Compliant  | С                                                                                                              |
| Fc            | orm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                       | Compliant/<br>Non-Compliant  | C                                                                                                              |
| Fo            | orm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                         | Compliant/<br>Non-Compliant  | C                                                                                                              |
| Fo            | orm V-8 - List of Principals and Officers                                                                                                                                                        | Compliant/<br>Non-Compliant  | C                                                                                                              |
|               | orm V-9 - FTA Certification Regarding Debarment,<br>uspension, Ineligibility and Voluntary Exclusion                                                                                             | Compliant/<br>Non-Compliant  | С                                                                                                              |
|               | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant  | С                                                                                                              |
|               | orm V-11 - FTA Certification Regarding Clean Air Act and<br>Ideral Water Pollution Control Act                                                                                                   | Compliant/<br>Non-Compliant  | С                                                                                                              |
| Fo            | rm V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant  | C                                                                                                              |
|               | rm V-13 - Certificate of Compliance With Drug and<br>cohol Testing and Drug-Free Workplace Act                                                                                                   | Compliant/<br>Non-Compliant  | C .                                                                                                            |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                           | 100 points                   | 85                                                                                                             |

#### Scoring Range

| Excellent          | Good              | Average | Below Average | Unsatisfactory |
|--------------------|-------------------|---------|---------------|----------------|
| 10                 | 7                 | 5       | 3             | 0              |
| Rating Performed B | 2/15/17<br>(Date) |         | RY 15, 2012   |                |

. 4

## UTDC LIGHT RAIL VEHICLE REFURBISHMENT

#### RFP No.: 2010043

PROPOSAL EVALUATION FORM

Contractor's Name: ALSTOM

|              |       | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE |
|--------------|-------|-------------------------------------------------------------------------------|------------------------------|-------|
| Letter o     | of Ti | ransmittal                                                                    | Compliant/Non-<br>Compliant  |       |
| Part 1       | - Th  | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    |       |
|              | А.    | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 4     |
|              | В.    | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 3     |
| Part 2 -     | Ref   | erenced Projects:                                                             | 3 points                     | 3     |
| Part 3 -     | Pro   | ject Staffing and Experience:                                                 | 12 points                    |       |
|              | Α.    | Staffing Plan and Resumes                                                     | 6 points                     | 2     |
|              | В.    | Project Manager                                                               | 6 points                     | 0     |
| Part 4 - '   | Tec   | hnical Submittal:                                                             | 35 points                    |       |
|              | Α.    | Approach to Accomplish the Work                                               | 9 points                     | 3     |
|              | В.    | Quality Control                                                               | 5 points                     | 2     |
|              | C.    | Compliance with Technical Specifications                                      | 8 points                     | 4     |
|              | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |       |
|              |       | Auxiliary Power System                                                        | 3 poínts                     | z     |
|              |       | Communications System                                                         | 3 points                     | 3     |
|              |       | Event Recorder System                                                         | 2 points                     | 2     |
|              | E.    | Project Schedule                                                              | 5 points                     | 4     |
| Sub-<br>OTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 33    |

## **FINAL OFFERS FEBRUARY 15, 2012**

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

PAGE 25

|               | EVALUATION GRITERIA                                                                                                                                                                                      | Maximum<br>possible<br>score | SCORE |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------|
| Part 5        | - Price Proposal:                                                                                                                                                                                        |                              |       |
|               | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br><u>RT-determined costs for off-site work</u> ) |                              |       |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                              | 40 points                    | 40    |
| Fo            | oposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                                | Compliant/<br>Non-Compliant  | C     |
| Fo            | orm V-3 - Receipt of Addenda                                                                                                                                                                             | Compliant/<br>Non-Compliant  | C     |
| Fo            | rm V-4 - Interests and Gratuities Certification                                                                                                                                                          | Compliant/<br>Non-Compliant  | С     |
| Fo            | rm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                           | Compliant/<br>Non-Compliant  | C     |
| Fo            | rm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                                | Compliant/<br>Non-Compliant  | С     |
| Fo            | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                                  | Compliant/<br>Non-Compliant  | ۲     |
| Fo            | rm V-8 - List of Principals and Officers                                                                                                                                                                 | Compliant/<br>Non-Compliant  | C     |
|               | rm V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                                       | Compliant/<br>Non-Compliant  | Ċ     |
| For           | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                                  | Compliant/<br>Non-Compliant  | C     |
|               | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                                             | Compliant/<br>Non-Compliant  | С     |
| For           | rm V-12 - FTA Buy America Certificate                                                                                                                                                                    | Compliant/<br>Non-Compliant  | C     |
|               | m V-13 - Certificate of Compliance With Drug and<br>ohol Testing and Drug-Free Workplace Act                                                                                                             | Compliant/<br>Non-Compliant  | C     |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                                   | 100 points                   | 73    |

#### Scoring Range

Average Below Average Unsatisfactory Excellent Good 10 7 5 3 0 Rating Performed By: (Proted Mame) 2/15/ 12 FINAL OFFERS FEBRUARY 15, 2012

|              | 2/15/2012 3:25 PM<br>2nd UTDC Evaluation |
|--------------|------------------------------------------|
| From:        |                                          |
| To:          | Sue Robison                              |
| Date:        | 2/15/2012 3:25 PM                        |
| Subject:     | 2nd UTDC Evaluation                      |
| Attachments: | Proposal Evaluation Weakness.doc         |

Sue,

The attachment contains my comments backing up my change in scoring the proposals for the UTDC project.

Thanks,



### Alstom Proposal Evaluation Weakness

In the first evaluation and rating the issue of the Program Manager and the qualifications loomed large. I felt the individual first identified did not possess the education qualifications expected of this type of position. Alstom identified a new project manager in the updated submittal. The Project manager, Mr. Telly Sionides possesses a Bachelors Degree from "American State University, of Evanston Wyoming. American State University. Research of American State University said this institution was first established in the State of Hawaii, it was closed by that state and moved to Wyoming and renamed Hamilton University where it was closed by court order and reopened in the Bahamas and named Richardson University. The school is reported to be a diploma mill and was the subject of a 60 Minutes story.

I changed my score for Project manager from a 2 to a ZERO. I lowered my Staffing Plan Resume score from a 4 to a 2, based on this information.

Alstom changed the Auxiliary Power System provider to a respected company known in the transit industry so I raised my score on this item from 2 to 3.

My Alstom score was reduced from the first evaluation from 77 points to 73 points.

#### Siemens Proposal Evaluation

I did not change my scoring of the Siemens proposal. I felt Siemens submitted a solid proposal with reasonably well thought out work flow processes.





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March 20, 2012

Jim Lindsay, Vice President and Customer Director Alstom Transportation, Inc. 1001 Frontenac Rd. Naperville, IL 60563

Dear Mr. Lindsay:

Subject: RFP No. 2010043, UTDC Light Rail Vehicle Refurbishment -Response to Alstom's Request for Further Consideration of <u>Protest filed on February 28, 2012</u> Project File/CN: 2010043

The Sacramento Regional Transit District (RT) is in receipt of your letter dated March 13, 2012, requesting further consideration of Alstom's February 23, 2012 protest of RT Staff's intent to recommend award the above contract to Siemens Industries, Inc.

After careful review of Alstom's grounds for protest, and per RFP Section II, E.10. Further Investigation of Protest, I am in the process of deciding how to proceed and expect to make a decision within two weeks.

In the meantime, the documents you have requested will be made available to you under a separate cover.

Per RFP Section II, E.2. Effect of Protest on Contract Award or Bid Opening, the Board will not award the Contract prior to issuance of a final decision on the protest.

Sincerely,

Milia Rally

Michael R. Wiley General Manager/CEO

Via Email: Jim.Lindsay@Transport.Alstom.com

c: Mike Mattos, Chief of Facilities and Business Support Services Randall Miller, Director, Procurement Services Fernando Barcena, Manager, Contracts and DBE Colleen Elder, Materials Management Superintendent Sue Robison, Senior Procurement Analyst RT General Manager/CEO File RT Legal Department TRANSPORT NORTH AMERICA ALSTOM Transportation Inc. 1001 Frontenac Road Naperville, IL 60563 Office: (630) 369-7525 Mobile: (630) 699-5011 e-mail: Jim Lindsay@transport.alstom.com



March 13, 2012

Via email to <u>mmattos@sacrt.com</u> and US Mail

Mr. Mike Mattos Chief of Facilities and Business Support Services Sacramento Regional Transit District 1400 29th Street (Box 2110), Sacramento, CA 95816

Re: RFP 2010043, UTDC Light Rail Vehicle Refurbishment Notice of Intent to Recommend Conditional Award of Contract **Protest of Staff Decision** 

Dear Mr. Mattos:

ALSTOM Transportation Inc. ("Alstom") requests further consideration of its February 23, 2012 protest of the staff decision summarized in Sacramento Regional Transit District's ("RT's") letter dated February 21, 2012 of RT's notice of intent to recommend a conditional award of the UTDC Light Rail Vehicle Refurbishment Contract to Siemens Industry, Inc. ("Siemens").

This request is timely, being made within five (5) working days of the March 8, 2012 meeting to attempt to resolve the protest, pursuant to the RT Bid/Protest Procedure, RFP Section II, E, 9.

Alstom wishes to supplement its February 23, 2012 letter, based on information provided in RT's Preliminary Response to Protest dated February 28, 2012 (the "Preliminary Response") and on information RT provided to Alstom during the March 8<sup>th</sup> meeting (the "Meeting").

#### Supplementing Grounds for Protest

Based on its review of RT's Preliminary Response and discussions during the Meeting, Alstom contends that the process for evaluating the proposals and BAFOs was subjective and flawed.

- (1) RT's conclusions regarding Alstom's refurbishment experience was not based on objective criteria;
- (2) RT's conclusions regarding potential deficiencies in Alstom's cababilities were incorrect;

Mr. Mike Mattos

(3) RT's interpretation of the results of negotiations was capricious;

(4) Results of the Application of the mathematical price calculation are questionable; and

(5) The evaluation process, even if properly applied, led to a result that is not most advanteageous.

#### **Refurbishment Experience**

RT's conclusions regarding Alstom's experience were not based on objective critieria.

As discussed in the Meeting, and detailed in Alstom's letter of February 23rd, Alstom has refurbished over 3,000 cars in North America alone, including LRV refurbishments. In contrast, to the best of Alstom's knowledge, Siemens has yet to successfully complete ONE refurbishment project in the United States. Both Alstom and Siemens have extensive world-wide experience in manufacturing new LRVs. However, as RT must know, there is a significant difference between refurbishing vehicles compared to building new ones. In refurbishment of any type of vehicle, skills are required in evaluating the condition, managing the repair of the sub-parts, and dealing with fractional bills of material -- which are not skills associated with a new car build. Alstom is a leader in refurbishing cars in the United States and understands the differences between new build and refurbishing work.

In the Preliminary Response, RT indicated that "While Alstom had experience in heavy rail refurbishments, there was no evidence to support light rail refurbishment experience." RT reiterated this point during the Meeting. From these statements, it appears that RT did not consider that Alstom's substantial experience in refurbishing many types of rail cars should be treated as "similar" experience. For Alstom, it was obvious that refurbishing rail cars was "similar" work, and the fact that it had performed more complex refurbishment work on heavy rail was a distinguishing feature that highlighted the advantages of selecting an experienced refurbishment contractor. As Alstom explained at the Meeting, due to the small size of the LRV fleets in the US, the relative youth of the vehicles compared to heavy rail fleets, and a tendancy for LRV owners to perform a level of work themselves, there have been few LRV refurbishments performed by third party contractors. Alstom has been tracking US LRV refurbishment contracts awarded since 1995. The table below summarizes Alstom's findings.

| Award Date | Agency | City           | State | Qty | Contractor                 | Value      |
|------------|--------|----------------|-------|-----|----------------------------|------------|
| Oct-10     | MUNI   | San Francisco  | CA    | 7   | Ansaldobreda               | 32,000,000 |
| Dec-09     | MUNI   | San Francisco  | CA    | 143 | Ansaldobreda               | 56,752,554 |
| Dec-06     | UTA    | Salt Lake City | UT    | 29  | Bombardier                 | 20,000,000 |
| May-06     | NFTA   | Buffalo        | NY    | 27  | Ansaldobreda               | 32,800,000 |
| Feb-06     | PAT    | Pittsburgh     | PA    | 15  | CAF                        | 45,900,000 |
| Oct-02     | GCRTA  | Cleveland      | OH    | 34  | ΤΤΑ                        | 22,529,998 |
| Jün-01     | SEPTA  | Philadelphia   | PA    | 18  | Brookville Equipment Corp. | 22,700,000 |
| Aug-00     | PAT    | Pittsburgh     | PA    | 40  | CAF                        | 77,000,000 |
| Jun-95     | MBTA   | Boston         | MĂ    | 55  | ALSTOM                     | 11,639,118 |

Mr. Mike Mattos

-3-

Alstom had performed LRV refurbishments on the Boston Green Line (55 cars in 1995) and San Francisco Muni (17 PCC cars, mid-1993 to 1995) fleets. It did not hightlight these older projects in its proposal. If RT had only raised a question about Alstom's LRV experience, Alstom would have described these projects and explained that it still had a current employee who had worked on the Muni rehab, and would be assigned to RT's project.

When comparing the evaluation of the category Referenced projects, despite Siemens having no reference of a successfully completed refurbishment project in the United States, the evaluation team scored both companies similarly (almost identically if taken on a 100 point scale). If LRV refurbishment was a crucial criteria for award, and if Alstom's failure to specifically mention LRV refurbishment seems to have colored RT's evaluation of Alstom in several categories, it would seem that an objective scorer should have disgualified Siemens based on lack of refurbishment experience in the US alone.

#### Alstom's Capabilities

RT incorrectly created and then negatively assessed supposed "deficiencies" in Alstom's capabilities.

In the Preliminary Response, RT stated that "During negotiations, it was apparent that Alstom lacked the infrastructure, tooling, skills, experience and staffing to complete the work." RT did not raise any questions about infrastructure or tooling during the negotiations. At the Meeting, RT could not explain what "infrastructure" Alstom was lacking. In fact, Alstom had agreed to perform the work at RT's own shop. Alstom also questions RT's conclusion that Alstom lacked "tooling." To the extent that specialized tooling would be required to refurbish the LRVs, Alstom intended to purchase it (and included the costs in its price). Therefore, RT's conclusion that any lack of such special tools would make Alstom less qualified was baffling and did not seem to be based on an unbiased assessment.

#### **Capricious Interpretation of Resolution of Negotiations**

RT has adopted a tortured interpretation of "closed," issues which is at odds with common usage and industry practice.

During the negotiations, Alstom provided additional information in response to RT's requests for clarification. This information exchange is memorialized in a January 31, 2012 letter from RT, containing a spreadsheet entitled "Summary of Contract Negotiations." The spreadsheet lists a series of issues, some raised in RT's October 10, 2011 letter to Alstom, and others raised after an October 27, 2011 negotiation session. The Summary of Contract Negotiations indicates that every open issue was "accepted," "approved," and/or "closed." As RT explained in its Preliminary Response, "The negotiations were successful in identifying and resolving issues to the satisfaction of the parties involved."

At the Meeting, Alstom questioned why its score in every category (except price) dropped between its first offer and the BAFO. Alstom questioned how its scores could decrease if Alstom had successfully addressed all open issues. RT explained that the fact that an issue was "closed" or that RT had

Mr. Mike Mattos

"accepted" a response did not mean that Alstom "scored 100%," RT indicated that during the negotiations, RT lost confidence in Alstom's ability to perform the work. RT's novel interpretation of the words "accepted" and "closed" is far from the ordinary meaning of these terms or any industry usage.

-4-

In its Preliminary Response, RT shared the scoring of the Alstom proposal. This scoring is detailed in the table below. From this table, one could conclude that Alstom's performance in negotiations and its delivery of information to RT during the negotiation process was very poor. Every section in the technical evaluation had a reduced score and in some sections the reduction was significant.

| · · · · · · · · · · · · · · · · · · · | Max.   |             | m Scores |        |
|---------------------------------------|--------|-------------|----------|--------|
| · · · · · · · · · · · · · · · · · · · | Points | <b>1</b> 5t | 2nd      | % move |
| Part 1 Firm                           | 70.0   | 51.0        | 43.5     | -14.7% |
| Part 2 Referenced Projects            | 21.0   | 16.0        | 14.5     | -9.4%  |
| Part 3 Project Staffing & experience  | 84.0   | 40.5        | 26.5     | -34.6% |
| Part 4 Technical Submittal            | 245.0  | 166.5       | 159.0    | -4.5%  |
| Part 5 Price Proposal                 | 280.0  | 280.0       | 280.0    | 0.0%   |
| Total                                 | 700.0  | 554.0       | 523.5    | -5.5%  |

During the negotiations, in response to RT's concerns, Alstom made changes regarding its technical submittal, supplier choice and project staffing and experience. In each case RT's response to Alstom was that the changes were accepted and the issues were closed. In some areas, like referenced projects, RT raised no concerns and Alstom did not make any changes in its proposal. Yet, even in these areas Alstom's score was reduced. Alstom consequently concludes that the scoring evaluation was arbitrary and that RT's interpretation of a "closed" issue was capricious, or the words may have been intentionally used to confuse or mislead Alstom about the status of the negotiations.

In the table below, Alstom has commented on the issues raised by RT, the changes Alstom made which were accepted by RT and the corresponding change in evaluations scores. From this analysis Alstom concludes that the evaluation scoring was arbitrary.

| ·      | •                                                                  | Max.   | Alstor | n Score |                                                                                                                                                   |
|--------|--------------------------------------------------------------------|--------|--------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------|
|        |                                                                    | Points | 151    | 2nd     | Changes during negotiations                                                                                                                       |
|        | The firm, experience, financial capacity                           | 35     |        |         | None                                                                                                                                              |
| Part 1 | Subsystem suppliers, supplier experience, manufacturing capability | 35     |        |         | Replaced Lanka with Translechnik, gave experience per supplier,<br>"Accepted and closed by RT"                                                    |
|        | Part 1 Firm                                                        | . 70   | 51     | 43.5    |                                                                                                                                                   |
|        | Part 2 Referenced Projects                                         | 21     | 16     | 14.5    | None                                                                                                                                              |
| 61     | Staffing plan & Resumes                                            | 42     |        |         | Changed organization structure, introduced site manager as well as PAS,<br>separated QC & Safety. "RT is satisfied with Alstom response. Closed'. |
| Enug   | Project Manager                                                    | 42     |        | :       | Replaced Gavne with Stonides, gave resume of Stonides. "AT accepts<br>Alstom's response, Closed."                                                 |
|        | Part 3 Project Staffing & experience                               | 84     | 40.5   | 26.5    |                                                                                                                                                   |
|        | Approach to accomplish the work                                    | 63     |        |         | None                                                                                                                                              |
|        | Quality Control                                                    | 35     |        |         | Changed tole to QC, gave QA plan; separated QC from Safety.<br>"AT is satisfied with Alstom response: Closed."                                    |
| ダゼ     | Compliance with technical specifications                           | 56     |        |         | Gave detailed spreadsheet of how we comply, system by system.<br>Answered questions raised by RT, Items "closed" by RT                            |
| e.     | Relevant Design & manufacturing of Subsystems                      | 56     | ·      |         | Replaced Lanka with Transtechnik, answered questions relied by RT.<br>"Accepted and closed by RT"                                                 |
|        | Project Schedule                                                   | 35     |        |         | Gave a detailed project ichedule, plus workflow chart.<br>"AT accepts the plan. Closed,"                                                          |
|        | Part & Technical Submittal                                         | 245    | 165.5  | 159     |                                                                                                                                                   |
|        | Part 5 Price Proposal                                              | 280    | 280    | 280     |                                                                                                                                                   |
|        | Totat                                                              | 700    | 554    | 523.5   |                                                                                                                                                   |

-5-

#### Mathematical Price Calculation

In its Preliminary Response, RT indicated that Siemens' score on its price proposal was 224 points, based on its original offer and its BAFO. Since Alstom dropped its price for the BAFO, in order for Siemens to maintain the same score, Siemens would have to have dropped its price an equivalent percentage. This unlikely result leads Alstom to question both application of the formula, and whether Siemens may have obtained information regarding Alstom's pricing.

At the Meeting, RT explained that a team of seven (7) scorers evaluated all proposals. For the qualifications and technical score (60% of the total), the individual scores of each evaluator were added. For the price score (40% of the total), RT applied the mathematical formula presented on the Proposal Evaluation Form. Presumably, each evaluator should have obtained an identical result when applying the mathematical formula.

In its Preliminary Response, RT provided the following information regarding scoring of the Price Proposals: Based on the original offers, Alstom scored 280 points and Siemens scored 224 points. After BAFO, Alstom scored 280 points, while Siemens scored 224 points.

How were these numbers derived? The Proposal Evaluation Form contained the following formula:

Proposer's Score = <u>Lowest Total Price</u> x 40 Proposer's Total Price\*

\* Proposer's Total Price includes RT-determined costs for off-site work

|        |      |      | Alstom's Price  | Siemens' Price   | Alstom's Score | Siemens' Score |
|--------|------|------|-----------------|------------------|----------------|----------------|
| Sept   | 8,   | 2011 | \$16,200,000.00 | TO BE CALCULATED | 280            | 224            |
| Propos | sals |      |                 |                  |                |                |
| Feb 7, | 2011 | BAFO | \$15,976,270.00 | \$19,890,099.70  | 280            | 224            |

As the lower priced proposer, Alstom would necessarily achieve the maximum score, or 280, based on a panel of seven scorers (7  $\times$  40 = 280).

Siemens' BAFO score would be:  $($15,976,270.00 / $19,890,099.70) \times (40 \times 7) = 224.9$ . In the table in the Preliminary response, RT truncated Siemens' score to 224.

The Preliminary Response indicated that Siemens' original price score was also 224 points. Therefore, if the formula were applied correctly, Siemens' original price must have been \$20,250,000.00 (with a possible slight variation to account for rounding or truncating), derived from the formula of (\$16,200,000.00/Siemens' price) x 40 x 7 = 224.

While it is possible that Siemens independently lowered its price just enough to maintain the same price score, this unlikely result merits additional review. RT has not provided Siemens original price to Alstom, so Alstom has no way of assessing this.

#### **Results not Advantegeous**

Finally, even if it is assumed that RT scrupulously followed the evaluation process set forth in the RFP, one could still question whether the result was truly most advantageous to the transit property. As RT explained in the Preliminary Response concerning Alstom's September 8, 2011 proposal, "The final scoring of written proposals resulted in a determination that both firms were in the competitive range." On a 100 point scale (instead of the 700 point cumulative scale), the two firms scored very closely, with Alstom scoring 79.1/100 and Siemens scoring 82.4/100. RT reiterated at the Meeting that both firms could do the work.

After BAFO, on a 100 point scale, Alstom scored 74.8/100, while Siemens scored 83.9/100. RT agreed that both firms could do the work, but Siemens' proposal was over 24% more costly.

By applying the process set forth in the RFP, the price differential could have been even greater, and it could still be "more advantageous" to award the project to Siemens, as long as its total score was higher than Alstom's.

Taken to the extreme, if we assume that Siemens' total score had been 524, comprised of 363 technical points and 161 price points, that would equate to a price of:

161 = (\$15,976,270) Siemens' price) x (40 x 7), or a Siemens' price of \$27,784,817.

Siemens could have charged RT almost \$28 Million, for services that Alstom was willing to provide for under \$16 Million, or a 74% price premium. Unless RT concluded that \$28 Million was outside the competitive range, this extreme result would seem to elevate adherence to a "process" beyond fiscal prudence.

Allocating 60% of the score to technical issues and 40% to price could give an advantageous and fiscally prudent result if the prices were within a narrow range. As the prices diverge, the numerical advantage based on scoring could lead to an unnecessary expenditure of public funds.

In this case, a \$3.9 Million premium is surely too much for RT to pay for the refurbishment, considering that RT has already concluded that either firm could perform the work and considering that this project relies on PTMISEA funding, which is not yet fully allocated. As stated in the PTMISEA guidelines of October 2011, "The recent delay of bond sales has impacted the availability of PTMISEA funding," RT may have to assure the Caltrans Department of Finance that the additional funding required is justified.

-7-

#### **Request for Relief**

Alstom respectfully requests that RT's management:

- (1) Reconsider the Preliminary Response to Protest made on February 28, for the purpose of setting aside or annulling the determination of RT's intent to recommend a conditional award of the UTDC Light Rail Vehicle Refurbishment Contract to Siemens; and
- (2) Set aside the finding that Siemens' proposal was the most advantageous to RT when the Siemens proposal was \$3.9 million higher than Alstom's responsive offer; and
- (3) Suspend issuance of a contract or Notice to Proceed to Siemens during the pendency of this protest; and
- (4) Afford Alstom a due process opportunity via a hearing to make a determination that Alstom as the lowest priced proposer, submitted a proposal that was the most advantageous to RT; and
- (5) Recommend a conditional award of the Contract to Alstom.

In order to be able to evaluate whether RT's evaluation process complied with applicable criteria, Alstom requests a copy of the documents that RT relied on to make its recommendation, including the proposal evaluation sheets for Alstom and Siemens, any documents that support the scoring in the evaluation sheets, Siemens' proposal and BAFO, and any other documents that would accompany RT's staff recommendation to the Board.

Thank you for your consideration of Alstom's request for further consideration of the protest. In accordance with instructions provided by Ms. Robison, Senior Procurement Analyst, this letter has been submitted electronically, with an original to follow by US mail.

Very truly yours Jin Lindsay

Vice President and Customer Director

CC Via email:

mnoble@sacrt.com srobison@sacrt.com

ATTACHMENT A Item Number 9



Sacramento Regional Transit District A Public Transit Agency and Equal Opportunity Employer

Mailing Address: P.O. Box 2110 Sacramento, CA 95812-2110

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February 28, 2012

Jim Lindsay, Vice President and Customer Director Alstom Transportation, Inc. 1001 Frontenac Rd. Naperville, IL 60563

Dear Mr. Lindsay:

Subject: RFP No. 2010043, UTDC Light Rail Vehicle Refurbishment -<u>Preliminary Response to Protest</u> Project File/CN: 2010043

The Sacramento Regional Transit District (RT) is in receipt of your letter dated February 23, 2012, on behalf of ALSTOM Transportation, Inc. (Alstom), protesting RT Staff's intent to award the above contract to Siemens Industries, Inc. As the Chief of Facilities and Business Support Services, I have been designated by the RT General Manager/CEO to review and provide a preliminary a response to your protest. After careful review of Alstom's grounds for protest, my preliminary decision is to hold a meeting to attempt to resolve the protest. The following is an explanation of RT's preliminary findings and response to the specific issues raised in your letter of protest:

#### **ISSUE (1) – EVALUATION PROCESS**

You state in your letter that RT may have abused its discretion by acting arbitrarily or capriciously, in its determination that Siemens' proposal was most advantageous to RT and such determination may be entirely without evidentiary support.

#### SUMMARY RESPONSE

RT evaluated the Proposals and Final Offers in accordance with the terms of the RFP. My review confirmed that this procurement was conducted with an objective, quantified scoring process implemented by qualified personnel.

#### **ISSUE (2) – DEBRIEFING**

You stated that RT's application of its evaluation process may be flawed, because there was no opportunity for a debriefing that could provide information on other potential grounds for protest, before the Board meeting that could result in the staff recommendation being adopted. Mr. Jim Lindsay Preliminary Response to Protest -2-

#### SUMMARY RESPONSE

It is RT's policy to hold debriefings only after award and execution of a contract (RT Procurement Policy Manual, Chapter 8.19 Debriefings).

#### **ISSUE (1) – EVALUATION PROCESS**

You stated that in selecting a prospective contractor, RT is required to select the offer that is most advantageous to RT. It does not have to select the lowest priced offer. While this criteria gives RT discretion, its actions must not be arbitrary or capricious or entirely lacking in evidentiary support. You make further statements regarding the scoring and evaluation.

#### RESPONSE

During the procurement, the Selection Committee scored the technical portion of the written proposals, then opened the sealed price proposals. The final scoring of written proposals resulted in a determination that both firms were in the competitive range. At that juncture, Alstom's total aggregate score was 23 points lower than Siemens' score. The total score possible was 700 points with 420 points available for the technical portion and 280 points maximum for the lowest total price. Alstom scored lower on Part 1-The Firm, Part 3–Project Staffing and Experience, and Part 4–Technical Submittal.

| WRITTEN EVALUATIONS                    | Alstom | Siemens | Point<br>Difference |
|----------------------------------------|--------|---------|---------------------|
| Part 1 - The Firm                      | 51     | 61.5    | 10.50               |
| Part 2 - Referenced Projects           | 16     | 14      | -2.00               |
| Part 3 - Project Staffing & Experience | 40.5   | 77      | 36.50               |
| Part 4 - Technical Submittal           | 166.5  | 200.5   | 34.00               |
| Part 5 - Price Proposal                | 280    | 224     | -56.00              |
| Total:                                 | 554    | 577     | 23.00               |

During negotiations, both firms were treated equally in addressing the issues that were raised. The negotiations were successful in identifying and resolving issues to the satisfaction of the parties involved. The Selection Committee's concern from the outset was that Alstom's proposal was vague and lacked detail. During negotiations, it was apparent that Alstom lacked the infrastructure, tooling, skills, experience and staffing to complete the work. While Alstom has experience in heavy rail refurbishments, there was no evidence to support light rail refurbishment experience. Until Final Offers were requested, the Selection Committee did not know how the final pricing would impact the final scoring; therefore, Alstom remained in the competition until Final Offers were received.

#### Mr. Jim Lindsay Preliminary Response to Protest

After Final Offers were received, RT evaluated the Proposals and Final Offers in accordance with terms of the solicitation and made a recommendation for award in accordance with those terms. Alstom's total score was 63.5 points lower than Siemens' score.

| FINAL OFFERS                           | Alstom | Siemens | Point<br>Difference |
|----------------------------------------|--------|---------|---------------------|
| Part 1 - The Firm                      | 43.5   | 62.5    | 19.00               |
| Part 2 - Referenced Projects           | 14.5   | 15.5    | 1.00                |
| Part 3 - Project Staffing & Experience | 26.5   | 79      | 52.50               |
| Part 4 - Technical Submittal           | 159    | 206     | 47.00               |
| Part 5 - Price Proposal                | 280    | 224     | -56.00              |
| Total:                                 | 523.5  | 587     | 63.50               |

#### ISSUE (2) – DEBRIEFING

You stated that you requested a debriefing but your request for a debriefing before the March 12, 2012 meeting was denied. You also stated that not enough information was given, and not enough notice provided to you to incorporate additional grounds for protest.

#### RESPONSE

It is RT's policy to not hold debriefings with unsuccessful proposers until after contract award has been made. The purpose of the debriefing is to assist proposers in improving future offers. To further this purpose and encourage a full and open discussion of the procurement process, RT determined that the debriefing is best done after conclusion of the procurement process. Until final award is made by the RT Board, the ultimate decision maker, the procurement is not yet final. I found that RT staff followed the proper procedures in all instances.

#### ISSUE – REQUEST FOR RELIEF

Alstom requests that RT's management:

- 1. Review the decision made by RT's staff, for the purpose of setting aside or annulling the determination of RT's intent to recommend a conditional award of the UTDC Light Rail Vehicle Refurbishment Contract to Siemens.
- 2. Set aside the finding that Siemens' proposal was the most advantageous to RT when the Siemens proposal was \$3.9 million higher than Alstom's responsive offer;
- Suspend issuance of a contract or Notice to Proceed to Siemens during the pendency of this protest;
- 4. Afford Alstom a due process opportunity via a hearing to make a determination that Alstom as the lowest priced proposer, submitted a proposal that was the most advantageous to RT; and

Mr. Jim Lindsay Preliminary Response to Protest

-4-

5. Recommend a conditional award of the Contract to Alstom.

#### RESPONSE

I have reviewed the procurement history and find that the procurement was conducted objectively, that the quantified scoring process was followed, and that the Selection Committee members made the correct determination that Siemens' proposal is the most advantageous to RT.

After Final Offers were received, final evaluation and scoring results showed that Alstom fell short by 63.5 points despite its price advantage of 56 points. Alstom's proposal was not determined by the Selection Committee to be the most advantageous to RT.

Per RFP Section II, E.2. Effect of Protest on Contract Award or Bid Opening, the Board will not award the Contract prior to issuance of a final decision on the protest.

In accordance with the RT Bid/Proposal Protest Procedure, RFP Section II, E, 9b, a meeting at which Alstom and RT staff will attempt to resolve the protest has been set as follows:

Thursday, March 8, 2012 3 p.m. Sacramento Regional Transit District Executive Conference Room – 2<sup>nd</sup> Floor 1400 29<sup>th</sup> Street Sacramento, CA 95816

Please confirm your attendance at this meeting via email at <u>mmattos@sacrt.com</u>. I can also be reached at (916) 556-0300 if you have questions.

Sincerely

Mike Mattos Chief of Facilities and Business Support Services

Via Email: Jim.Lindsay@Transport.Alstom.com

c: Randall Miller, Director, Procurement Services Fernando Barcena, Manager, Contracts and DBE Colleen Elder, Materials Management Superintendent Sue Robison, Senior Procurement Analyst RT General Manager/CEO File RT Legal Department

## REGIONAL TRANSIT MEMO

| DATE:    | February 24, 2012                                                                                                                                                                                                                 |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TO:      | Mike Wiley, General Manager/CEO                                                                                                                                                                                                   |
| FROM:    | Sue Robison, Senior Procurement Analyst<br>Colleen Elder, Materials Management Superintendent                                                                                                                                     |
| SUBJECT: | UTDC Light Rail Vehicle Refurbishment<br>RFP No. 2010043                                                                                                                                                                          |
| C:       | Bruce Behrens, Chief Legal Counsel<br>Mike Mattos, Chief of Facilities & Business Support Services<br>Melissa Noble, Attorney III<br>Randall Miller, Director, Procurement Services<br>Fernando Barcena, Manager, Contracts & DBE |

A properly filed protest (attached) to RT's letter of staff recommendation to the RT Board of Directors pertaining to award of a contract (attached) was received for this project.

Under RT Administrative Code, Title I - Procurement Ordinance, Chapter 1, Article VI, Bid/Proposal Protest Procedure, Section 1.609, the General Manager/CEO will designate an RT staff person to respond to the protester.

Staff recommends Mike Mattos, Chief of Facilities and Business Support Services, administer all responsibilities related to this protest and identified in the RT Bid/Proposal Protest Procedure, where the procedure states "or his/her designee."

Please indicate your designation of Mike Mattos to respond to the protester with your signature below.

De alla By: V

Michael R. Wiley, General Manager/CEO

Date: 2/24/12

TRANSPORT NORTH AMERICA ALSTOM Transportation Inc. 1001 Frontenac Road Naperville, IL 60563 Office: (630) 369-7525 Mobile: (630) 699-5011 e-mail: Jim.Lindsav@transport.alstom.com

February 23, 2012

Via Federal Express

Sacramento Regional Transit District Mr. Michael R. Wiley, General Manager/CEO 1400 29th Street (Box 2110), Sacramento, CA 95816

Re: RFP 2010043, UTDC Light Rail Vehicle Refurbishment Notice of Intent to Recommend Conditional Award of Contract **Protest of Staff Decision** 

Dear Mr. Wiley:

ALSTOM Transportation Inc. ("Alstom") submits this protest of the staff decision summarized in Sacramento Regional Transit District's ("RT's") letter dated February 21, 2012 of its notice of intent to recommend a conditional award of the UTDC Light Rail Vehicle Refurbishment Contract to Siemens Industry, Inc. ("Siemens") (the letter is Exhibit "1" hereto).

TTACHMENT A

Alstom is entitled to file a protest because as an actual proposer it is an "interested party" as defined in the protest procedure. This protest is timely, being made within ten (10) working days of RT's notice to Alstom that RT staff intended to recommend a conditional award to Siemens.

#### **Grounds for Protest**

The grounds for this protest are that:

- (1) RT may have abused its discretion by acting arbitrarily or capriciously, in its determination that Siemens' proposal was most advantageous to RT and such determination may be entirely without evidentiary support, and
- (2) RT's application of its evaluation process may be flawed, because there was no opportunity for a debriefing that could provide information on other potential grounds for protest, before the Board meeting that could result in the staff recommendation being adopted.

#### <u>Facts</u>

September 8, 2011: Alstom submitted a response to the referenced RFP (Exhibit 2). By its own admission in the February 21 letter, RT determined that Alstom's proposal was responsive to the requirements of the RFP.

-2-

September 16, 2011: RT advised Alstom that it intended to enter into negotiations with all proposers.

October 10, 2011: RT invited Alstom to make a presentation to address items set forth in a list of questions for negotiations (Exhibit 3).

October 27, 2011: Alstom made a presentation to RT to address issues raised in RT's October 10 letter (Exhibit 4).

November 4, 2011: Alstom submitted a response to RT documenting RT's acceptance and/or closure of issues discussed on October 27 (Exhibit 5).

January 31, 2012: Alstom invited to submit Best and Final Offer (Exhibit 6). RT explained that Alstom need only submit the pages that we changed from its original proposal, in response to the October 27 presentation and November 4 response.

February 7, 2012: Alstom submitted its BAFO (Exhibit 7).

February 21, 2012: RT advised Alstom of its intent to recommend a conditional award of the Contract to Siemens (Exhibit 1).

Alstom's September 8 offer was for a total contract price of \$16.2 M. Through discussions with RT and refinement of its offer, Alstom's BAFO was for a total contract price of \$15,976,270.

In the February 21 letter, RT indicated that it would recommend a conditional award to Siemens' in an amount not to exceed \$19,890,099.70. This amount was more than 24% higher than Alstom's BAFO.

#### **<u>RT's Recommendation is Arbitrary</u>**

In selecting a prospective contractor, RT is required to select the offer that is most advantageous to RT. It does not have to select the lowest priced offer. While this criteria gives RT discretion, its actions must not be arbitrary or capricious or entirely lacking in evidentiary support.

Price accounted for 40% of RT's numerical evaluation. Therefore, a \$3.9 M price differential (24.5%) would translate into an Alstom score of 40 on price criteria, and a Siemens' score of 32.

#### February 23, 2012

While the scoring for the price proposal is quantitative and defined, the scoring for the qualifications and technical proposal is subjective and could be applied arbitrarily. In addition, while the scoring of the technical portions may give the evaluation committee a basis for comparing the different technical proposals, it does not give an adequate framework to determine best value – which should be the most advantageous to RT.

Based on the sparse information that RT has provided to date, Alstom has no way of evaluating whether Siemens was able to overcome this 8 point disadvantage in the evaluation by out-scoring Alstom on other criteria. The evaluation committee may have scored more points to Siemens on criteria other than price. However, RT found that Alstom's original proposal was responsive to the RFP, and that all of RT's comments were accepted or closed before the BAFO. In light of the continuing budget constraints RT is facing, it does not seem fiscally advantageous to reject an offer that meets RT's requirements, while saving almost \$4 M in taxpayer funds.

#### Flaws in the Process

On February 21, 2012, Alstom contacted RT's Materials Management Superintendent to request a debriefing concerning Alstom's proposal and RT's notice of intent to recommend a conditional award of the Contract to Siemens. Alstom was advised that it would not be possible to schedule a debriefing before the March 12, 2012 meeting in which the RT staff would make its recommendation to the Board. This process placed Alstom in an untenable position. If the time for filing a protest of a staff recommendation is considered to run from the date of the notice of intent, the time for making a protest of the staff decision would have expired before Alstom could learn whether there were other grounds for protest that were not apparent in the February 21, 2012 letter.

By scheduling its presentation to the Board so soon after issuing the notice of intent, and failing to give Alstom a timely debriefing on the selection process, Alstom has been denied an opportunity to make a fact-based challenge of the reasons for RT's recommendation before the Board meeting. Thus, it appears that RT may not have followed proper procedures or given adequate notice.

Accordingly, Alstom reserves the right to amend its protest to incorporate additional grounds for protest that are related to the staff decision, but are not apparent in the February 21 letter.

#### **Request for Relief**

Alstom respectfully requests that RT's management:

 Review the decision made by RT's staff, for the purpose of setting aside or annulling the determination of RT's intent to recommend a conditional award of the UTDC Light Rail Vehicle Refurbishment Contract to Siemens; Mr. Michael R. Wiley

- (2) Set aside the finding that Siemens' proposal was the most advantageous to RT when the Siemens proposal was \$3.9 million higher than Alstom's responsive offer;
- (3) Suspend issuance of a contract or Notice to Proceed to Siemens during the pendency of this protest;
- (4) Afford Alstom a due process opportunity via a hearing to make a determination that Alstom as the lowest priced proposer, submitted a proposal that was the most advantageous to RT; and
- (5) Recommend a conditional award of the Contract to Alstom.

In order to be able to evaluate whether RT's evaluation process complied with applicable criteria, Alstom requests a copy of the documents that RT relied on to make its recommendation, including the proposal evaluation sheets for Alstom and Siemens, any documents that support the scoring in the evaluation sheets, Siemens' proposal and BAFO, and any other documents that would accompany RT's staff recommendation to the Board.

Alstom would be pleased to provide additional information to assist RT in consider this protest and request for relief. To aid in this process, we have summarized some of the information in Alstom's proposal about its overhaul capabilities. Alstom has had significant experience in renovation contracts; in the United States and throughout the world – far more than Siemens has had. We have overhauled more than 3000 cars in the US alone. For example, we are currently renovating 120 cars for the Delaware River Port Authority (the PATCO fleet). These cars were built in the 1980's, and Alstom is stripping the cars to the shell, removing asbestos and then rebuilding them with new or overhauled equipment. In the past two years, Alstom has completed similar projects for WMATA and MARTA.

On the West Coast, Alstom is just finishing a renovation contract replacing door operators and installing Disabled access items on 66 cars for Caltrans -- a job that Siemens started and failed to complete. This job is being completed on time, to budget and to Caltrans' satisfaction. Some of the team involved in this successful project will be available to support the RT project if Alstom is selected.

Alstom has an experienced and skilled engineering team and also has extensive access to engineering expertise throughout the world in order to quickly resolve any issue that may arise. As RT may appreciate, there is a difference between the renovation of a car and a new build of a car. Alstom is surprised that RT's evaluation team may have scored Siemens' higher in this category.

#### Mr. Michael R. Wiley

Thank you for your consideration of Alstom's request for relief. As required under RT's protest procedure, the original and ten (10) copies of this protest are enclosed.

Verv truly vours. Endery

Jim Lindsay Vice President and Customer Director

Exhibits

1. RT letter dated February 21, 2012

2. Alstom Proposal dated September 8, 2011

3. RT letter dated October 10, 2011, with attached Questions for Negotiations with Alstom

4. Alstom proposal dated October 27, 2011

5. Alstom response to RT dated November 4, 2011

6. RT letter dated January 31, 2012

7. Alstom BAFO dated February 8, 2012

ATTACHMENT A Item Number 12



Sacramento Regional Transit District A Public Transit Agency and Equal Opportunity Employer

Mailing Address: P.O. Box 2110 Sacramento, CA 95812-2110

Administrative Office: 1400 29th Street Sacramento, CA 95816 (916) 321-2800 (29th St. Light Rail Station/ Bus 36,38,505,67,68)

Light Rail Office: 2700 Academy Way Sacramento, CA 95815 (916) 648-8400

Human Resources Office: Employee Relations Office: 2830 G Street, 2nd Floor Sacramento, CA 95816 (916) 321-3800 (Bus 30,31,34,67,68)

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February 21, 2012

Jim Lindsay, Vice President and Customer Director Alstom Transportation, Inc. 1001 Frontenac Rd. Naperville, IL 60563

Dear Mr. Lindsay:

Subject: RFP No. 2010043, UTDC Light Rail Vehicle Refurbishment -Notice of Intent to Recommend Conditional Award of Contract Project File/CN: 2010043

The Sacramento Regional Transit District (RT) received two responsive proposals for the subject project on September 8, 2011, from Alstom Transportation, Inc. and Siemens Industry, Inc.

The Selection Committee deemed Siemens Industry, Inc.'s proposal to be the most advantageous to RT for UTDC Light Rail Vehicle Refurbishment.

This letter serves as notification that on Monday, March 12, 2012, RT staff will recommend to the Board of Directors, conditional award of the Contract for UTDC Light Rail Vehicle Refurbishment to Siemens for an amount not to exceed \$19,890,099.70, contingent upon Siemens Industry, Inc's. compliance with the Buy America Pre-Award Audit requirements.

RT appreciates the time and effort all the proposing firms dedicated to this project.

Sincerely,

Sue Robison

Sue Robison Senior Procurement Analyst

Via Email: Jim.Lindsay@Transport.Alstom.com

c: Mark Lonergan, Chief Operating Officer Vern Barnhart, Director, Light Rail Laura Espinoza, Maintenance Superintendent – Light Rail Fernando Barcena, Manager, Contracts and DBE Colleen Elder, Materials Management Superintendent RT Legal Department TRANSPORT NORTH AMERICA ALSTOM Transportation Inc. 1001 Frontenac Road Naperville, IL 60563 Office: (630) 369-7525 Mobile: (630) 699-5011 e-mail: Jim.Lindsay@transport.alstom.com

June 4, 2012

Via email to <u>mwiley@sacrt.com</u> and US Mail

Sacramento Regional Transit District Mr. Michael R. Wiley, General Manager/CEO 1400 29th Street (Box 2110), Sacramento, CA

## Re: RFP 2010043, UTDC Light Rail Vehicle Refurbishment Notice of Intent to Recommend Conditional Award of Contract Response to RT Letter of May 24 Concerning Protest filed on February 28, 2012

Dear Mr. Wiley:

In your letter of May 24<sup>th</sup> you stated you would recommend that the Sacramento Regional Transit District ("RT") Board of Directors award the contract for UTDC Light Rail Vehicle Refurbishment to Siemens. You requested that if Alstom wanted to continue its protest that comments, evidence or materials that Alstom would like to have included in the agenda packet should be submitted by 4<sup>th</sup> June. Alstom respectfully requests that the protest continue to the Board for decision.

#### INTRODUCTION

Given the 24.5% lower price Alstom offered RT, your rating panel could only recommend Siemens if Siemens dramatically outscored Alstom on the other aspects of its proposal. Since Alstom has vastly more experience refurbishing rail vehicles than Siemens, and unquestionably has the resources RT needs to complete this job, any reasonable observer would have expected Alstom to be rated ahead of Siemens on technical merit, or at least on par with Siemens. Instead, the panel gave Siemens an overwhelming edge on the technical aspects of its proposal – just enough to overcome the huge price differential between the companies' offers. A review of the scoring materials suggests the reason for what seems an inexplicable outcome: Siemens was given an edge because it is a local business. This type of preference is plainly impermissible under the federal regulations RT must follow. (See 49 U.S.C. Section 5323(h)(2), referenced on page 59 of the RFP; see also 49 C.F.R. § 661.21 and FTA Circular 4220.1F, dated 11/01/2008.) As you are well aware, RT's goal here is to determine which proposal offers the best value. Alstom urges the Board of Directors, when determining the best value, to keep the following facts in mind:

- Aistom's price is substantially lower: Alstom's price of \$15,976,270 is \$3,913,830 (24.5%) less than Siemens.
- Change Orders: Because RT's requirements were sufficiently defined in the RFP, and based on Alstom's track record, there is no basis for your evaluator's unfounded suspicion that a contract with Alstom would have an overall cost increase due to unnecessary change orders.
- Alstom has dramatically more refurbishment experience than Siemens: Alstom has refurbished or overhauled over 4,000 vehicles, including LRV's, while Siemens has yet to complete one vehicle overhaul/refurbishment in the United States.
- RT's evaluation documents and procurement review is impermissibly biased with comments expressing preference for Siemens due to it being based in Sacramento.
- In several areas, where Siemens were scored significantly higher than Alstom, there is evidence of arbitrary or capricious judgment by the evaluation team, which resulted in the Siemens' proposal having the appearance of best value.
- In response to the procurement review summary of trade offs provided by RT, Alstom has made a point by point analysis (see attachment 1)

Accordingly, Alstom urges RT to award the contract for UTDC Light Rail Vehicle Refurbishment to Alstom, or in the alternative to request both Siemens and Alstom to submit another BAFO to be reviewed by a different, independent group of evaluators or, if this is not possible, to rebid.

## Alstom's price of \$15,976,270 is \$3,913,830 (24.5%) lower than Siemens

According to the report from Bravo on May 24, LTK had an estimate of 20.9M\$ to complete the refurbishment. Adding the Siemens price to the component overhauls RT is sub-contracting separately, the Siemens price is over this estimate. When you further add the scope of work that Siemens has transferred to RT, Siemens' proposal is significantly higher than the LTK estimate.

As the Board of Directors is aware, the additional capital funding required, for this partially funded project, is not free. Should RT award the contract to Siemens, the additional bonds would have to be

-2-

Mr. Michael Wiley

sold to pay for the nearly \$4 million extra. This would lead to an increased cost to the taxpayers of Sacramento and California of over \$117, 000 per year based on an interest rate of 3%.

Your consultant's report of May 24<sup>th</sup> describes RT's unsubstantiated concern that change orders are more likely to occur with Alstom than with Siemens. However, the Bravo report itself describes how RT learned from the Utah Transit Authority's ("UTA") mistakes in a prior, similar project. There, the UTA provided an unclear initial work-scope resulting in change order issues. In contrast, RT utilized in-house experience and expertise along with LTK to develop a clear work-scope in the RFP. Consequently the probability of change orders due to unclear work-scope is very low.

Moreover, there is no basis to conclude that Alstom is a company that unfairly utilizes change orders to inflate a contract price. In reviewing the overhaul contracts referenced in Alstom's proposal, change orders for additional work represented less than 4% of the contract price (see attachment 2). The contract Alstom has just completed with Caltrans is a perfect illustration. There, Alstom's price was below the amount budgeted by Caltrans. Alstom completed the job on time and under budget. By contrast, Caltrans terminated its contract with Siemens for that same job in part due to the change orders Siemens requested.

In addition, Siemens has transferred risk and scope to RT in negotiations. (See attachment 3). For example, Siemens has limited its scope of axle replacement to 25%. While Alstom estimated it would need to replace 25%, it accepts the risk of replacing more if required (as envisaged in the RFP). If RT takes into account the recent Caltrans experience, and the risk-shifting Siemens has imposed on RT, it is clear that Siemens, not Alstom, presents RT with a real risk of change orders down the line.

# Alstom refurbished over 4,000 vehicles while Siemens has yet to complete one refurbishment.

Alstom's proposal highlighted the vehicle refurbishments the company has completed. Alstom has completed over 4,000 vehicle refurbishments including LRVs (see attachment 4). In comparison, Siemens' proposal detailed its experience (see attachment 5). Siemens' experience is solely with the assembly of new vehicles and not refurbishment of older vehicles. The references called under Siemens "Rail Vehicle Rebuild" are virtually all system upgrades and replacement, not refurbishments. Although we recognize there are a number of LRV system upgrades in the RT project, the majority of the work is in the overhaul and refurbishment of trucks, car bodies and existing systems. With Alstom's high level of experience in refurbishments, Alstom is attuned to the engineering difficulties of refurbishment and reengineering of components and systems. Therefore Alstom, unlike Siemens, has the experience needed to address the variations that inevitably will be found between vehicles. This will be managed on a vehicle-by-vehicle basis by the Alstom engineer who is on site throughout the project, from NTP until completion of the last vehicle. Alstom's policy and experience is to accept and manage the variances between vehicles, and not make these a variation to contract issue.

As indicated in Alstom's letter to Mr Mattos of March 13<sup>th</sup>, there is a significant difference between refurbishing vehicles compared to building new ones. In refurbishment of any type of vehicle, a project

-3-

Mr. Michael Wiley

team must be skilled in evaluating the condition and effecting the repair of the sub-parts and dealing with fractional bills of material. These are not skills associated with a building new cars. It is clear that RT has not taken these differing skill sets into account in its evaluation.

The one vehicle refurbishment project referenced in Siemens' proposal is a contract with Caltrans for "Limited full vehicle overhaul and upgrade of HVAC and door systems" on 66 bi-level cars. Although Siemens started this contract, it never finished it. Technical difficulties Siemens encountered, combined with the commercial disagreements it had with Caltrans, led to the contract being terminated for convenience. Alstom, led by the same Project Management team it proposed to use for RT's contract, with support from the Alstom engineering group, was able to overcome the technical difficulties and complete the rebuild of the cars abandoned by Siemens, under budget and on time. It is patently unreasonable based on the documented experience of Alstom and lack thereof by Siemens, to rate Siemens higher – let alone *substantially* higher – than Alstom for a refurbishment contract.

## Alstom is technically compliant and able to perform the work

RT has recognized that Alstom's proposal was responsive and technically compliant (see attachment 6) and in fact, Alstom and Siemens were scored similarly at the written proposal stage on technical compliance. At the negotiations on October 27<sup>th</sup>, Alstom gave RT a spread sheet detailing a line-by-line technical review (see attachment 7). At the negotiations, Alstom was asked to respond to questions posed by RT. No further questions were posed by RT on this matter. If RT did not have confidence that Alstom clearly understood the details of the work necessary to fulfill the contract, even after the detailed review presented, an objective team of evaluators surely would have sought to confirm that belief with questions or asked for more information. It did not, apparently content to claim that Alstom failed to demonstrate sufficient technical knowledge and thereby award the "local" competitor.

RT criticizes Alstom for succinctly stating that it would comply with particular RT requirements, in comparison to Siemens' more detailed responses. But if RT had any technical questions about Alstom's approach or ability to comply it should have asked further questions of Alstom, rather than assuming – with no foundation – that Alstom lacked an understanding of the requirements. Moreover, an examination of Siemens' supposedly more detailed responses shows that Siemens may have used more words, but the words used were simply a restating of RT's own requirement. Here are just two examples:

| RFP Language                                                                                                                                                                                                           | Siemens' Proposal                                                                                                                                                                                                                           | Alstom's Proposal                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 2.2.2 End Masks<br>Contractor must inspect both<br>ends of the vehicle for<br>adhesion between the<br>fiberglass end masks and<br>metal carbody repair any<br>damage to the fiberglass,<br>replace any corroded rivets | <b>2.2.2 End Masks</b><br>Siemens will inspect both ends<br>of the vehicle for adhesion<br>between the fiberglass end<br>masks and metal car body,<br>repair any damage to the<br>fiberglass, replace any<br>corroded rivets with stainless | <b>2.2.2 End Masks</b><br>Alstom shall be compliant with<br>the requirements of this<br>section. |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1 11                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| with stanless etc-approved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | steel rivets, reseal with an RT-<br>approved sealant, and touch-<br>up the repaired surfaces.                                                                                                                                                                                                                                                                           |                                                                                                         |
| <b>3.2.1 Truck Inspection</b><br>Contractor must disassemble<br>and reassemble all trucks<br>according to the carbuilder<br>instructions included in<br>Sections 4.6 and 4.7 of the<br>UTDC Corrective Maintenance<br>Manual and Section 4 of<br>the UTDC Heavy Repair<br>Manual. All parts removed<br>during disassembly must be<br>returned to RT for evaluation,<br>except mounting hardware,<br>bushings and other<br>consumable parts which must<br>be replaced with new parts<br>supplied by the Contractor. RT,<br>at its option, may return the<br>parts as is, refurbish the parts,<br>or provide new replacements. | <b>3.2.1 Truck Inspection</b><br>Siemens will disassemble and<br>reassemble the trucks in<br>accordance with original<br>supplier's recommendations as<br>stated in the UTDC Corrective<br>Maintenance and Heavy Repair<br>Manuals. All non-consumable<br>truck parts will be examined by<br>RT, who may decide to reuse,<br>refurbish or provide<br>replacement parts. | <b>3.2.1 Truck Inspection</b><br>Alstom shall be compliant with<br>the requirements of this<br>section. |

There is no substantive difference between Siemens' response and Alstom's; both say that the company will do what the RFP requires although Siemens uses more words to say the same thing.

## <u>RT's evaluation comments and procurement review is biased with comments expressing preference</u> for Siemens due to it being based in Sacramento

The fact that local bias, or some other impermissible hidden factor, infected the ratings process is made clear by a number of other factors. For example:

- 6 of the 7 evaluators in their comments justify why Siemens was selected made reference to the fact that Siemens was a local company. For example, evaluators stated: "Siemen's plant local"; fact that Siemens was a local company. For example, evaluators stated: "Siemen's plant local"; "a large California Employer (+)"; "locally situated"; "Locale is a plus." One evaluator complained that Alstom was "from out of the area." Even without the other abnormalities cited in this letter, these comments also make Siemens' selection highly vulnerable to being overturned by the FTA or the courts.
- RT commented in its procurement review as part of its evaluation process that "Alstom does not possess any tooling or equipment for the project and intends to buy everything. Siemens local facility and having existing tools and equipment is an advantage to RT". Any tooling required by Alstom is included in its price. Any tooling required by Siemens is included in its price. If Siemens has spare tools, then the only advantage to RT would be that the Siemen's might be

-5-

able to lower its price. This comment was made in regards to approach to work, in which Siemens scored 25 more points than Alstom. Clearly, this demonstrates that RT's preference that Siemens is local has biased its evaluation.

 This local bias is also evident in other areas of the summary of trade off's used by RT to determine best value in the Procurement Review document), and also in the evaluators comments for Final Offers (See attachment 1).

## The Technical evaluation by RT is arbitrary and capricious

- Between proposal and BAFO, the ratings panel Alstom's score was reduced by 30.5 points, despite the fact that Alstom was found to have answered RT's questions to RT's satisfaction.
- The scoring for the project manager is another area where the evaluation by RT is arbitrary and capricious. The RFP stated that "The Proposed Project Manager must have the responsibility and authority to commit budget and resources, and to direct and accomplish the scope of work. The Project Manager must be experienced in managing a team of diverse professionals and in overseeing the preparation of technical documents. Proposer must indicate what percent of the Project Manager's working hours will be dedicated to this project. At least two recent client reference check contacts, which may not include current or former RT employees, must be provided for the proposed Project Manager."
  - The appropriate way to evaluate the project manager is on the work he has performed 0 and the references he provides. The proposed Alstom Project Manager has recently completed the Caltrans 66 bi-level door and systems renovation to time and budget. He has also successfully managed wreck repairs for Caltrans, Caltrain and Amtrak. All these projects involved high levels of variation to work scope - the type of experience RT should be looking for in a project manager for this project. All of these projects were delivered to time, budget and customer satisfaction. He has also project managed the installation of Wi-Fi on the Amtrak fleet and on buses for Muni. Before that, the proposed project manager managed a \$50M per year maintenance contract, and before that he managed refurbishment of helicopters. We believe that our proposed project manager is a strong and successful project manager and equal to any that can be found anywhere in the industry. Unbelievably, RT confirmed in the meeting of March 8<sup>th</sup>, that it had not made any effort to check the references of the project manager. To help RT and the board of directors, a copy of a letter of commendation by Caltrans is attached. (See attachment 8).
  - 4 of the 7 evaluators expressed concern about Alstom's project manager based on the fact that 15 years ago he obtained a degree from an institution that has been involved in publicized scandals. Regardless of the culpability of that institution in those cases, unspecified scandals that have nothing to do with the Project Manager himself can hardly justify downgrading Alstom's proposal.
  - Some members of the evaluation team knew the Siemens project manager and clearly used that personal knowledge to favor Siemens.

#### Mr. Michael Wiley

- Alstom's proposal was scored overall 30.5 points lower than Siemens for this category.
   And some of the evaluation team also indicated their scoring of the project team (which had a 20 points gap) was also negatively influenced by the Project Manager's degree
- The fact that the comments of the evaluators are similar, especially with regards to the comments of the Alstom Project manager's education, suggests that their BAFO evaluation was not independent.
- Earlier RT correspondence questioned the adequacy of Alstom's "infrastructure." By the terms of RT's Request for Proposals ("RFP"), infrastructure should not have been an issue since the proposers were required to use RT's own infrastructure to complete the work. Seeing that RT is providing the infrastructure to both contractors, it was incorrect and grossly unfair to state that Alstom lacked the infrastructure needed for this project. But this was one of the comments made by the evaluation team in justifying their decision and was deemed important enough an issue to be raised and highlighted by Mr. Mattos in his letter of Feb. 28<sup>th</sup> in justifying that Siemens presented best value. RT's statement concerning Alstom's infrastructure is without rationale or substantiation and seems to be pretext for its bias in favor of a local company. [Karen, I liked your earlier, more detailed, description of the infrastructure requirements]

RT provided Alstom with a copy of an independent review of RT's process. RT's independent outside review contains virtually no independent analysis of the proposals or explanation of why it would be reasonable for Siemens to score so much higher than Alstom. The outside reviewer found that RT followed an appropriate process, but it is not the process that is at issue; it is the objectively unreasonable conclusions the evaluation panel reach. It appears that this document was produced only to give weight to the decision taken by RT. Consequently there was no objective review of the proposals. The reasons RT's ratings panel have cited to date for the difference in scoring simply do not withstand analysis.

When determining the best value, Alstom requests that the Board of Directors recognize the impermissible factors that apparently clouded the judgment of many of the evaluators, gives due weight to the tremendous cost savings Alstom offers, and takes into account the facts that Alstom's vastly greater experience with the work RT needs to have performed. If it does, we believe the Board will reject its staff recommendation to award the contract to Siemens and either award to Alstom, or in the alternative to request both Siemens and Alstom to submit another BAFO to be reviewed by an different, independent group of evaluators.

Respectfully, 1 Jim Lindsay Vice President and Customer Director

Mr. Michael Wiley

Via email: mnoble@sacrt.com srobison@sacrt.com

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| Part I The Firm; Major Subsystem                                                                                |        |                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                               |                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                 |
| secont actors.<br>The firm                                                                                      | ţν     | Will hire most of workers locally, <u>arobath without</u><br>any constantion the call industry, arear completion,<br>transfer all support for the vehicles to TLS in III.                                                                                                                                                                                                        | Will bring experienced IS worker from the<br>Socraments Stadiky, All of the aftermarket support,<br>after completion, will remain at the same Socramento<br>faulty.                           | Having the Contractor Dassed JocaEv allows them to<br>be more floxible and better able to handlo unplarmed<br>Issues.                                                                                                                     | Local preference given to Slamens. There is no basis to<br>decide that Alstom will hire people without experience -<br>Indizating arbitrary judgement                                                                                                                           |
| Experience                                                                                                      |        | Alstom's proposal provided only Commuter and<br>Heavy Rail projects as examples.                                                                                                                                                                                                                                                                                                 | All examples provided were of Ught Rall overhauls<br>and refurbishment projects.                                                                                                              | or with Alstorn since they have<br>ultiplied by their proposal being                                                                                                                                                                      | Siomens exemples did not inclue ANY vehicle overhauks.                                                                                                                                                                                                                          |
|                                                                                                                 |        | RTs experience with TLS is below standard since 2007<br>and has caused CAF vehicles (with Alstom propulsion<br>equipment) to be out of service, varianty and<br>thermandret regalive work has taken at times up to a<br>year for regalied parts to be returned to RT.                                                                                                            | RT's experience with Slemens support has been<br>consistent since the purchase of the U2 Vehiclas in<br>approximately1.986.                                                                   | water in these areas.<br>It believes that Semmers support for warranty and<br>aftermenter located in the Sacanments Attea will<br>provide superfor support over Alston TLS.                                                               | After coming out of warrary 5 years ago, RT (bud by one of<br>the ownersch) thole repair equipment themaeves. Not<br>the ownersch states thema but RT introduced faults<br>into the equipment.                                                                                  |
|                                                                                                                 |        | Examples províded some completo vehícle overhauls,<br>although none wera of LRV's.                                                                                                                                                                                                                                                                                               | Examples provided were of complex sub-system<br>refurblishments on LRV, including one with<br>Sacramento RT for the Communication system for <del>the</del>                                   | Siemens understanding of LRV and having several<br>overhaul projects outweighs Alstom's many project<br>working on Heavy/Commuter Rail.                                                                                                   | Siemens has NO experience of refurbshing a vehicle, only<br>Asson has vehicle refurbshmerst experience which inducts:<br>LRVA.                                                                                                                                                  |
| Financial Capacity                                                                                              |        | No issues.                                                                                                                                                                                                                                                                                                                                                                       | 1/2a vehicin<br>No issues: Provided a cost savings to RT of a Parent<br>Company Guarantee as a aiternative to the<br>Derformator Bord.                                                        |                                                                                                                                                                                                                                           | Siemens price was 2.4% higher, even by officing a PCS which<br>Brea AT less protaction.                                                                                                                                                                                         |
| Subsystem Suppliers                                                                                             | s      | <ol> <li>R.T. Infected the first supplier for the AFS because<br/>the Supplex "Technologies supplier for the AFS because<br/>manufacturing APS units. Alstom later provided a<br/>cecord supplier that "R zoophod. 2) Suggestud a<br/>different Bonth Recorder than requested in the<br/>specifications, (RT did not reject).</li> </ol>                                         | All sub-systems met RT's requirements.<br>All sub-systems met RT's requirements.                                                                                                              | Ref. that doncerns with Alson's decklon to pick an<br>R That doncerns with Alson's decklon to pick an<br>Univow, unyorown APS supplier that that inver<br>deckgred the most complex sub-system required for<br>the Vehicle refurbishment. | Aktion said for would review and agree all supplier choices<br>with RT. RT hauly accepted all Aktion's choices.                                                                                                                                                                 |
| Supplier Experience                                                                                             |        | Suggested APS Supplier with no experience for the<br>systems proposed to be supplied.                                                                                                                                                                                                                                                                                            | Suggested sub-supplier has been producing similar<br>systems in the Light Rail Industry for many years.                                                                                       | RT would be concerned with Alstom using a sub-<br>supplier that was a 'second choice' by the Proposer.                                                                                                                                    | RT accepted Aktom's attenate APS supplier, yet has not accounted for this in its evaluation.                                                                                                                                                                                    |
| Marufacturing Capability                                                                                        | -      | RT was concerned about the original APS supplier was<br>relocating and the retention of experienced personnel.                                                                                                                                                                                                                                                                   | All of the Sub-suppliers selected have proven success<br>with Slemens.                                                                                                                        | RT would be concerned with Alstom decision of using<br>a sub-supplier that would be relocating at the time of<br>our arcleet.                                                                                                             | The alternate APS supplier chosen and accepted by RT is i<br>relocating. This comment is no longer valid, yet Alstom is negatively scored.                                                                                                                                      |
| Part 2 - Referenced Projects:                                                                                   | e      | Alstom did not include any LTV projects, only heavy<br>rail and commuter rail project provided.                                                                                                                                                                                                                                                                                  | Slemens provided several project all with LKVs.<br>Slemens completed a complex project for RT.<br>Alternite processes were suggested to RT that<br>Internetion for under the new claimer mets | Siemens understanding of LRV and having several<br>overhauf projects outweighte Atatom's many projects<br>working on Heavy/Commuter Rail.                                                                                                 | Siemens han NO accontence of refurbibiling veriede, only<br>Aktorn has vehicle refurbishment ergenence, which include<br>LRVs.                                                                                                                                                  |
| Rear Protect Staffing and Experience:<br>Staffing Plan and Resumes                                              | ส่     |                                                                                                                                                                                                                                                                                                                                                                                  | be provided fron<br>ed staff. Slemens<br>: a former VTA en<br>DC Vehidos.                                                                                                                     | radd that the learning curve with Alstom's<br>affect the project schedule and quality of<br>spotsity on the first few<br>otostypes.                                                                                                       | There is no basis for fit concern that people hired will not<br>there the required coportees. Stenear's proposed schedulo<br>was longer than Alsterns. Is the VP of Operations for<br>stenens really going to be on the shop frour in KTT<br>Stenens                            |
| Project Manager                                                                                                 |        | Original PM was rejected for no oxperiance. The PM's<br>resume stated his PM experience in lutture tense<br>working: An alternative PM was automated and based<br>on the resume was accepted by RT. Upon further<br>investigation, RT found that has BS. In Bleartical<br>Engineering extradion was from an unaccredited<br>offlege featured on a 60 Minuter television program. | PM solected has a Masters in Electrical Engineering<br>and has worked on past successful projects Including<br>one with RT.                                                                   | The PM for Stemens had direct experience working<br>with ST and was superfor to Alstom's choice.                                                                                                                                          | RT's evaluation had a bies for a local PM that they know, and<br>estants a PM that they eigh one know on the basis of a depres<br>obtained LS vens ages. Rather than reviewing his references<br>phose and Alsons PM mestively even though RT told<br>Alstom ha was ecceptable. |

| Part 1 - The Firm: Main Subsection |     |                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                              |                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                      |
|------------------------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Subcontractors.<br>The Firm        | βw  | Will here most of workers locally, <u>probably without</u> ,<br><u>any copertents in the full industry</u> , there completed, it<br>transfer all support for the vehicles to TLS in III.                                                                                                                             | Will bring experienced Ut worker from the<br>Socramonto Facility. All of the attemnation support. It<br>accompletion, will remain at the same Sacramento I<br>actiny.                                        | Having the Contractor <b>passed locally</b> allows them to<br>be more floatble and better able to handle unplanned<br>issues.                                                          | Local preference prent to Stements. There is no basis to<br>decide that Masom will him poople without experience -<br>instituting address/judgement.                                                                                                                                 |
| Experience                         |     | Alstom's proposal provided only Commutar and<br>Heavy Rail projects as examples.                                                                                                                                                                                                                                     | All examples provided were of Ught Rall overhauls<br>and refurbishment projects.                                                                                                                             | The risk to RT is higher with Austom since they have no LRV oxperience multiplied by their proposal being                                                                              | Stomens exemples did not inclue ANY vehicle overhauls.                                                                                                                                                                                                                               |
|                                    |     | RTs experience with TLS is below standard since 2007<br>and has caused CAT vehicles (with Attom propulsion<br>equipment) to be out as serves. Warrenty and<br>thermanitier regality work has taken with three up to a<br>year for regalited parts to be returned to RT.                                              | RTs experience with Stemens support has been<br>consistent since the purchase of the U2 Vehicles in<br>approximately1986.                                                                                    | usue in most areas.<br>Thelieves that Sternors support for warranty and<br>aftermarket located <b>in the Sacramento Area</b> will<br>provide superfor support over Alstorn TLS.        | After coming out of warrany 6 years ago, AT (lod by one of<br>the ownerse) tried to tepper equipment themselves. Not<br>ownerselves the original terms but AT introduced faults<br>into the equipment.                                                                               |
|                                    |     | Examples provided same comploto vehicle overhauls,<br>although none were of LRYs.                                                                                                                                                                                                                                    | revided were of complex sub-system<br>ans: on LRV, including one with<br>. RT for the Communication system for the                                                                                           | Stemors understanding of LRV and having several<br>overhaul projects outweighs Aktion's many project<br>working on Heavy/Commuter Rail.                                                | Siemens has NO experience of inductiobabling a vehicle, only<br>Alsiona has vehicle returbishment experience which includes<br>LRVA.                                                                                                                                                 |
| Financial Capacity                 |     | re-r                                                                                                                                                                                                                                                                                                                 | 10.3 vehicit».<br>Liusue: Provided a cost savings to RT of a Parent<br>Company Guarantee as a alternative to the<br>Performance gend.                                                                        | Slemens suggestion saved \$214K on the proposal<br>cost.                                                                                                                               | Siemens price was 24% higher, even by officiang a PCG which<br>gives AT feas protection.                                                                                                                                                                                             |
| Subsystem Suppliers                | w   | 1. Wit rejected the first supplier for the APS bocuse<br>the Supplier Thermologies supplier for the APS bocuse<br>maintraduring APS units, Altacon later provided a<br>record to publicit with XI accopted. IS Suggested a<br>different Event Recorder than requested in the<br>specifications, (WT did not reject). | s RT's requirements.                                                                                                                                                                                         | RT had concerns with Mistorin's decision to pick an<br>unionom, unproven APS supplier that had never<br>designed the most complox sub-system required for<br>the Vohide refurbishment. | <b>.</b>                                                                                                                                                                                                                                                                             |
| Supplier Experience                |     | Suggested APS Supplier with no experience for the systems proposed to be supplied.                                                                                                                                                                                                                                   | Suggested sub-supplier has been producing similar systems in the Light Rail Industry for many years.                                                                                                         | RT would be concerned with Alstom using a sub-<br>supplier that was a 'socond choicy' by the Proposer.                                                                                 | RT accepted Alstom's attennate APS supplier, yet has not accounted for this in its evaluation.                                                                                                                                                                                       |
| Marufacturing Capability           |     | RT was concerned about the original APS supplier was<br>relocating and the retention of experienced personnel.                                                                                                                                                                                                       | All of the Sub-suppliers selected have proven success<br>with Siemens.                                                                                                                                       | RT would be concerned with Alstom decision of using<br>a sub-supplier that would be relocating at the time of<br>our probert.                                                          | The alternatic APS supplier chosen and accepted by RT is not<br>relocating. This comment is no longer valid, yet Alstom is<br>negatively scored.                                                                                                                                     |
| Part 2 - Referenced Projects:      | £   | Asrom did not include any LTV projects, only heavy<br>rail and commuter rail project provided.                                                                                                                                                                                                                       | Slemens provided several project all with LRV's.<br>Sicmens completed a complex project for RT.<br>Alternate processes were suggested to RT that<br>Inverses innoviations and cound lainor mets              | iderstanding of UNV and having several<br>ojects outweighs Alstom's many projects<br>Heavy/Commuter Rail.                                                                              | Stemens has NO argorience of refuritibility a vehicle, only<br>Abston has volición refurtibilment experience, which includes<br>LRVs.                                                                                                                                                |
| e and the staffing and Experience: | 2   |                                                                                                                                                                                                                                                                                                                      | ž.                                                                                                                                                                                                           |                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                      |
| Staffing Plan and Resumes          | • . | Sesides the Project Manager (PMI) and the Deputy<br>PM, all of the other distallithms would be filted locally.<br>RT is concerned that the staff intered locally will not<br>have light rall industry experience.                                                                                                    | All of the Project team will be provided from within<br>Simone existing experienced staff. Siemone Nired as<br>an expert technical support a formor VTA employee<br>that is familiar with the UTDC Vehicles. | RT is concerned that the learning curve with Alsam's<br>staff would afticat the project schedule and quality of<br>the work, especially on the first few<br>webidges/protesypes:       | There is to such for Ricence: That people Invest will<br>have the required expensions. Simmari's proposed achound<br>was longer than Altions. Is the YP of Operations for<br>Simmens, result yourg to be on the shop floor in RT7                                                    |
| Project Manager                    |     | Original PM was rojected for no experience. The PM's<br>resume stated his PM experience in future tense<br>works An alternative PM was anothered and based<br>on their resume was accepted by RT. Upon further<br>investigation, RT found that his BS in Bleatrical<br>Engineering education was from an unaccedited | PM selected has a Masters in Electrical Engineering<br>and has worked on past successful projects including<br>one with RT.                                                                                  | The PM for Slemens had diroct experience working<br>with RT and was superior to Alstom's' choice.                                                                                      | RT-s evaluation had a bars for a local PM that they know, and<br>estimate an U-bat they for Action work more the bals of a degree<br>destined 15 years ago, Rather than reviewing but meteroners<br>they seared Autom PM negatively even though RT told<br>Alsonn he was accretable. |

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| Most responses by Stammus just restated what the RPP cald.<br>In written proposatis, ST scored Abstand similarly to Stammas.<br>RT's concern was not raised during negotialitions and the gap<br>In scoring was only widened a. BAPD.                                  | Required tooling is included in the prize for both Airtom and<br>Stensca. There is no odvartage to RT if Stemans has space<br>tools. Tais is an overage of local blan.                                                                                                                                                          | All Alstom's engineering costs wore included in Rids price and<br>Absom engineer is required to be present at all times<br>throughout the project.      | There is no basis to state that Alson is a higher that than<br>Stemens. In fact, Stemens action during negotiatons are an<br>Indication that they are more likely to sit for charge orders                             | Sientens has suid that the terms of payment would be agreed<br>only after water of contract. Aktoon Na proce in 25% tower<br>than Sameens. There is no requirement in the RP to have 7<br>cars completed with ARRA fundure. | Aktoms price is 4445 or 24% lower than Semens.                                                                                                                            | Write Alstom hires are new to the area they are not<br>necessarity be new to LRV. Thate is no basis to make that<br>conclusion.                                                                             | RTs scoring at written proposed on rechnical compliance<br>does not support this subjective "feeling" after the doction.                                                                             |                                                                                  | KT approved and accepted Abtom's alternate choice.                                                          | KT નંદરણવાર્થ Aiktom's choice, ખ્યોત્રી is compliant to the<br>specifications                                        | 73566                                                                                                                                                                                                                                                                                                                                                                                                                       | المراقبة الم<br>المراقبة المراقبة من منهما المراقبة من المراقبة المراقبة المراقبة المراقبة المراقبة المراقبة المراقبة المراقبة ا | trutter und gep ut prote to unserver internationally und gep un<br>tochnical evaluations is not limited - allowing subjective or<br>arbitrary judgement to outweigh prizing. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RT evaluation team conducted that Stemens had a<br>better understanding of the project. RT was very<br>concerned that Alstan did not fully understand of the<br>vehicles and scope of work. Becaules their proposal<br>would perform the work for the amount proposed. | Slemens <u>total facility</u> and having oxisting tools and<br>equipment is an advantage to RT.                                                                                                                                                                                                                                 | Vehicles will have some differences that will nequire<br>engineering support. Siemens Proposal reflects a<br>better understanding of the project needs. | The lower priced proposal was of higher risk. Stemens<br>proposal was in dopth and detailed. Algrown's proposal<br>was vogue and it was hard for RT to determine if all<br>the work inquired was understood and priced | er transmers<br>RT beleves that Sumers proposal distributed the<br>onthreering costs in a more realistic way.                                                                                                               | Stemens proposal is in line with the Engineering<br>estimate. Alstom's method for obtaining each line<br>Thems picting does not seem to be based on actual<br>sertements. | Semen's approach of using a QA/QC manager who<br>already has experience in the LKV inductry will ensure<br>better quality management over Aistom's hiring of a<br>local person with unknown LKV experience. | The Team feels that the risk of unanticipated issues<br>would be greatly reduced by selecting Siemens.                                                                                               |                                                                                  | The team believes that a proven system currently in<br>use by Slemens will provide a botter product for RT. | None<br>RT suggested that either Bach-Simpson or Socheron<br>De supplied, Alstom suggested a system unknown to<br>RT | It the bleves the Stamers spored, blows the most<br>field lifty in components; their decision to trandown<br>for first vehicles at the start also provides a way to<br>find any unforeseen issue. Alstom waiting until the<br>major components are available, in more of a tak than<br>fischense plan to trandown the vehicles: fight tifer MTP<br>to allow more time to address unplanned scope earlier<br>in the project. |                                                                                                                                                                                                                                     | Frice points were anocated on a momentation bosis<br>per the RFP.                                                                                                            |
| were vague, most were answered with The proposal provided detailed descriptions for each<br>e compilant with the requirements of step and Stement's asked many additional questions<br>he Exect spreadsheat that Autom<br>beyond their proposal.                       | During negotlations Siamens asked many dotalled<br>questions regarding work coordination, vehicla<br>workstakes and work to be performed off-site at their<br>workstakes and work to be performed off-site at their<br>stath.<br>Stemens manufacturing faulity possessos tho mujority<br>of the tooling needed for the project. | Distributed the Engineering costs throughout the 21<br>vehicles. RT anticipates that each vehicle will need<br>some custom dosign solutions.            | Lower risk of change orders with the proposal.                                                                                                                                                                         | Up-from costs of \$500,000 allows RT to complete the<br>committed 7 Vehicles with the ARRA funds available.                                                                                                                 | Each bid price was priced individually in accordance<br>with the scope of work.                                                                                           | Proposed process is well outlined and established.<br>LRV trained inspector will be used from thoir<br>Socramento facility.                                                                                 | The proposal was well written and detailed, many<br>additional issues were brought up during negotlations<br>that provide RT with assurance that Remens had a<br>complete understanding of the work. |                                                                                  | The Supplier is also being used on Siemens new LRV's.                                                       | Proposed sume Supplier<br>Proposed what RT requested.                                                                | Semens apprach is to remove the trades from the<br>last vertice on the schedule to use as floater<br>amponents at NIP. Taardown on LKV 1 & 2 would<br>start the next month.                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                     | Nemens received lower points for submitting the<br>higher priced proposal.                                                                                                   |
| The respondes were vogue, most were answered with<br>"Alstom shall be compilard with the requirements of<br>this section". The Expenditions that Alstom<br>provided at the October negotiations meeting<br>provided very little additional information.                | During, negotiarions Alatom spont little time axiding<br>questions or presenting any additional information. Is<br>Alatom presented alternative solutions to on-going<br>Mahimenatom total possess any toolong or equipment for<br>the project and intends to buy everything.                                                   | No Engineering costs were allocated to each vehide;<br>therefore, there were no allowances for engineering v<br>support on a per vehide basis.          | High risk for Change orders can increase the pdca<br>post award.                                                                                                                                                       | Up-frant cast of 20% or \$3,000,000 only allows 3 of<br>the 7 LKV's to be completed with ARRA funding.                                                                                                                      | * was higher and they priced each line<br>crose of the total price. The Manuals<br>und, the some way, 4 out of S line items                                               | As you are not not an even.<br>Other than the PM all QAVOC daily functions will be<br>brought in as new kires locally.                                                                                      | The Team finds that there is little to evoluate since<br>the proposal had little dotail.                                                                                                             |                                                                                  | Second Offer was approved                                                                                   | Proposed same Supplier<br>Proposed a different supplier than requested.                                              | chostic add not samt the mantdown<br>nil 2nd quarter of 2012 at this same thre<br>systems are scheduled to be procured.<br>mbiles from the last vehicle were<br>be used as floaters.                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                     | Alstom (coerved the maximum allowed points for<br>submitting the lowest price.                                                                                               |
| σ                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                         |                                                                                                                                                                                                                        |                                                                                                                                                                                                                             |                                                                                                                                                                           | Ś                                                                                                                                                                                                           | ø                                                                                                                                                                                                    |                                                                                  | ε                                                                                                           | m N                                                                                                                  | w                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                     | ¥/N                                                                                                                                                                          |
| Approach to Accomplish the Work                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                         |                                                                                                                                                                                                                        |                                                                                                                                                                                                                             |                                                                                                                                                                           | Quality Control                                                                                                                                                                                             | Compliance with Technical Specifications                                                                                                                                                             | Relevant Design and Manufacturing of<br>Subsystems - New Subassembly Components: | Auxiliary Power System                                                                                      | Communications System<br>Event Rocorder System                                                                       | Project Schedule                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                     | Price                                                                                                                                                                        |

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#### RFP Title: UTDC Light Rail Vehicle Refurbishment RFP No.: 2010043 Date: February 15, 2012

#### FINAL OFFERS

| Possible |                                        |                      | ·       |
|----------|----------------------------------------|----------------------|---------|
| Points   |                                        | Alstom               | Siemens |
| 10       | Part 1 - The Firm                      | elected to not score |         |
| 3        | Part 2 - Referenced Projects           |                      |         |
| 12       | Part 3 - Project Staffing & Experience |                      |         |
| 35       | Part 4 - Technical Submittal           |                      |         |
| 40       | Part 5 - Price Proposal                |                      |         |
|          | Totals                                 | 0                    | 0       |
|          | Rank                                   |                      |         |

| Possible |                                        |        |         |         |
|----------|----------------------------------------|--------|---------|---------|
| Points   |                                        | Alstom | Siemens |         |
| 10       | Part 1 - The Firm                      | 4      | 9       |         |
| 3        | Part 2 - Referenced Projects           | 1      | 3       |         |
| 12       | Part 3 - Project Staffing & Experience | 2      | 11      |         |
| 35       | Part 4 - Technical Submittal           | 24     | 31      |         |
| 40       | Part 5 - Price Proposal                | 40     | 32      |         |
|          | Totals                                 | 71     | 86      |         |
|          | Rank                                   |        |         | Siemens |

| Possible<br>Points |                                        | Alstom | Siemens |        |
|--------------------|----------------------------------------|--------|---------|--------|
| 10                 | Part 1 - The Firm                      | 7      | 9       |        |
| 3                  | Part 2 - Referenced Projects           | 2      | 2       |        |
| 12                 | Part 3 - Project Staffing & Experience | 6      | 12      |        |
| 35                 | Part 4 - Technical Submittal           | 23     | 28      |        |
| 40                 | Part 5 - Price Proposal                | 40     | 32      | 7      |
|                    | Totals                                 | 78     | 83      |        |
|                    | Rank                                   | 2      | 1       | Siemen |

| Possible<br>Points |                                        | Alstom | Siemens | ]    |
|--------------------|----------------------------------------|--------|---------|------|
| 10                 | Part 1 - The Firm                      | 9      | 9       | 7    |
| 3                  | Part 2 - Referenced Projects           | 2      | 2       | 1    |
| 12                 | Part 3 - Project Staffing & Experience | 3      | 10      | 1    |
| 35                 | Part 4 - Technical Submittal           | 30     | 31      | 7    |
| 40                 | Part 5 - Price Proposal                | 40     | 32      | 1    |
|                    | Totals                                 | 84     | 84      | 1    |
|                    | Rank                                   | 1      | 2       | Tied |

| Possible<br>Points |                                        | Alstom | Siemens |         |
|--------------------|----------------------------------------|--------|---------|---------|
| 10                 | Part 1 - The Firm                      | 5      | 9       |         |
| 3                  | Part 2 - Referenced Projects           | 2      | 3       | -       |
| 12                 | Part 3 - Project Staffing & Experience | 3      | 12      |         |
| 35                 | Part 4 - Technical Submittal           | 20     | 29      |         |
| 40                 | Part 5 - Price Proposal                | 40     | 32      |         |
|                    | Totals                                 | 70     | 85      |         |
|                    | Rank                                   | 2      | 1       | Siemens |

|          | · · · · · · · · · · · · · · · · · · ·  |        | - <b>1</b> · · · · · · · · · · · · · · · · · · · |         |
|----------|----------------------------------------|--------|--------------------------------------------------|---------|
| Possible |                                        |        | 01                                               |         |
| Points   |                                        | Alstom | Siemens                                          | _       |
| 10       | Part 1 - The Firm                      | 5      | 8                                                |         |
| 3        | Part 2 - Referenced Projects           | 2      | 1                                                |         |
| 12       | Part 3 - Project Staffing & Experience | 5      | 10                                               |         |
| 35       | Part 4 - Technical Submittal           | 21     | 26                                               |         |
| 40       | Part 5 - Price Proposal                | 40     | 32                                               |         |
|          | Totals                                 | 73     | 77                                               |         |
|          | Rank                                   | 2      | 1                                                | Siemens |
| Possible |                                        |        |                                                  |         |
| Points   |                                        | Alstom | Siemens                                          |         |
| 10       | Part 1 - The Firm                      | 6.5    | 9,5                                              |         |
| 3        | Part 2 - Referenced Projects           | 2.5    | 2.5                                              | 7       |
| 12 .     | Part 3 - Project Staffing & Experience | 5.5    | 12                                               | _       |
| 35       | Part 4 - Technical Submittal           | 20     | 3.1                                              |         |
| 40       | Part 5 - Price Proposal                | 40     | 32                                               |         |
|          | Totals                                 | 74.5   | 87                                               | 7       |
|          | Rank                                   | 2      | 1                                                | Siemens |
| Possible |                                        |        |                                                  | -       |
| Points   |                                        | Alstom | Siemens                                          |         |
| 10       | Part 1 - The Firm                      | 7      | 9                                                |         |
| 3        | Part 2 - Referenced Projects           | 3      | 2                                                |         |
| 12       | Part 3 - Project Staffing & Experience | 2      | 12                                               |         |
|          | Part 4 - Technical Submittal           | 21     | .30                                              | 7       |
| 40       | Part 5 - Price Proposal                | 40     | 32                                               |         |
|          | Totals                                 | 73     | 85                                               |         |
|          | Rank                                   | 2      | 1                                                | Siemens |
|          | OVERALL TOTAL                          | 523.5  | 587                                              | -       |
|          | AVE, WEIGHTED                          | 75     | 84                                               | 7       |
|          | AVE, RANK                              | 1.4    | 0.9                                              | 1       |

Highest Ranked: Siemens Second Ranked: Alsom

The Evaluation Committee met on February 15, 2012 to discuss and score the Final Offers.

sue Robiton Prepared By: <u>STIC KUZI/JW</u> Procurement Services/Contract Administration

#### RFP No.: 2010043

#### PROPOSAL EVALUATION FORM

### Contractor's Name: SIEMENS INDUSTRY, INC.

|               |       | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE |
|---------------|-------|-------------------------------------------------------------------------------|------------------------------|-------|
| Letter        | of Ti | ransmittal                                                                    | Compliant/Non-<br>Compliant  |       |
| Part 1        | - Th  | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    |       |
|               | A.    | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 5     |
|               | В.    | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 4     |
| Part 2        | - Ref | erenced Projects:                                                             | 3 points                     | 3     |
| Part 3        | - Pro | ject Staffing and Experience:                                                 | 12 points                    |       |
|               | A.    | Staffing Plan and Resumes                                                     | 6 points                     | 6     |
|               | В.    | Project Manager                                                               | 6 points                     | 6     |
| Part 4        | - Tec | hnical Submittal:                                                             | 35 points                    |       |
|               | Α.    | Approach to Accomplish the Work                                               | 9 points                     | 8     |
|               | В.    | Quality Control                                                               | 5 points                     | 4     |
|               | C.    | Compliance with Technical Specifications                                      | 8 points                     | 7     |
|               | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |       |
|               |       | Auxiliary Power System                                                        | 3 points                     | 3     |
|               |       | Communications System                                                         | 3 points                     | 2     |
|               |       | Event Recorder System                                                         | 2 points                     | 2     |
|               | E.    | Project Schedule                                                              | 5 points                     | 3     |
| Sub-<br>FOTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 53    |

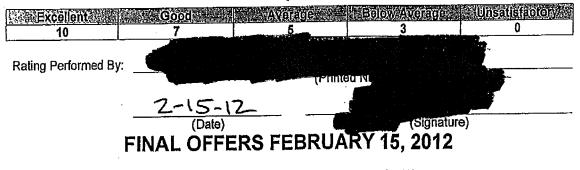
# FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rall Vehicle Refurbishment

2010043/5.19.2011

PAGE 25

|               | EVALUATION CRITERIA                                                                                                                                                                       | Maximum<br>possible<br>score | SCORE |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------|
| Part 5        | - Price Proposal:                                                                                                                                                                         |                              |       |
| F             | orm V-1 - Proposal Price (separately sealed envelope)<br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) | 40 points                    | 32_   |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                               | 40 points                    |       |
| Fo            | oposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - irrevocable Letter of Credit                                                                 | Compliant/<br>Non-Compliant  |       |
|               | orm V-3 - Receipt of Addenda                                                                                                                                                              | Compliant/<br>Non-Compliant  |       |
| Fo            | orm V-4 - Interests and Gratuities Certification                                                                                                                                          | Compliant/<br>Non-Compliant  |       |
| Fo            | orm V-5 - Campaign Contribution Disclosure Form                                                                                                                                           | Compliant/<br>Non-Compliant  |       |
| Fc            | rm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                 | Compliant/<br>Non-Compliant  |       |
| Fo            | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                   | Compliant/<br>Non-Compliant  |       |
| Fc            | rm V-8 - List of Principals and Officers                                                                                                                                                  | Compliant/<br>Non-Compliant  |       |
| Fc<br>Si      | rm V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                        | Compliant/<br>Non-Compliant  |       |
|               | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                   | Compliant/<br>Non-Compliant  |       |
| Fo            | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                              | Compliant/<br>Non-Compliant  | ·     |
|               | rm V-12 - FTA Buy America Certificate                                                                                                                                                     | Compliant/<br>Non-Compliant  |       |
| Fo<br>Ale     | rm V-13 - Certificate of Compliance With Drug and<br>cohol Testing and Drug-Free Workplace Act                                                                                            | Compliant/<br>Non-Compliant  |       |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                    | 100 points                   | 85    |



UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

PAGE 26

#### RFP No.: 2010043

PROPOSALEVADUATION FORM

Contractor's Name: ALSTOM

|               |                                        | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE |
|---------------|----------------------------------------|-------------------------------------------------------------------------------|------------------------------|-------|
| Letter        | of T                                   | ransmittal                                                                    | Compliant/Non-<br>Compliant  |       |
| Part 1        | - Th                                   | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    | · .   |
|               | A.                                     | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 2     |
|               | B.                                     | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 3     |
| Part 2        | - Ref                                  | erenced Projects:                                                             | 3 points                     | 2     |
| Part 3 ·      | - Pro                                  | ject Staffing and Experience:                                                 | 12 points                    |       |
|               | Α.                                     | Staffing Plan and Resumes                                                     | 6 points                     | 2     |
|               | В.                                     | Project Manager                                                               | 6 points                     | · J   |
| Part 4 ·      | Tec                                    | hnical Submittal:                                                             | 35 points                    |       |
|               | A.                                     | Approach to Accomplish the Work                                               | 9 points                     | . 4   |
|               | В.                                     | Quality Control                                                               | 5 points                     | 3     |
|               | C.                                     | Compliance with Technical Specifications                                      | 8 points                     | 4     |
|               | D.                                     | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |       |
|               |                                        | Auxiliary Power System                                                        | 3 points                     | 2     |
|               |                                        | Communications System                                                         | 3 points                     | 2     |
|               |                                        | Event Recorder System                                                         | 2 points                     | 2.    |
|               | E.                                     | Project Schedule                                                              | 5 points                     | 223   |
| Sub-<br>TOTAL | ······································ | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 30    |

# **FINAL OFFERS FEBRUARY 15, 2012**

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011



|               | EVALUATION CRITERIA                                                                                                                                                                              | , Maximum<br>possible<br>iscore | SCORE |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------|
| Part 5        | - Price Proposal:                                                                                                                                                                                |                                 |       |
| Fo            | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) | 40 points                       | 40    |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                      | 40 points                       |       |
| Fo            | oposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                        | Compliant/<br>Non-Compliant     |       |
| Fc            | orm V-3 - Receipt of Addenda                                                                                                                                                                     | Compliant/<br>Non-Compliant     |       |
| Fo            | orm V-4 - Interests and Gratuities Certification                                                                                                                                                 | Compliant/<br>Non-Compliant     | ·     |
| Fa            | orm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                  | Compliant/<br>Non-Compliant     |       |
| Fo            | orm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                       | Compliant/<br>Non-Compliant     |       |
| Fo            | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                          | Compliant/<br>Non-Compliant     |       |
| Fo            | rm V-8 - List of Principals and Officers                                                                                                                                                         | Compliant/<br>Non-Compliant     |       |
|               | rm V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                               | Compliant/<br>Non-Compliant     | · ·   |
|               | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant     |       |
|               | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                                     | Compliant/<br>Non-Compliant     |       |
| Fo            | rm V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant     |       |
| Fo<br>Alc     | rm V-13 - Certificate of Compliance With Drug and<br>sohol Testing and Drug-Free Workplace Act                                                                                                   | Compliant/<br>Non-Compliant     |       |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                           | 100 points                      | 70    |

Average 5 waragen ... Unsailstandiv Excellent Good 10 0 7 Rating Performed By: (Printed Nat Z-15-12 (Date) FINAL OFFERS FEBRUARY 15, 2012 αnθ)

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

#### Sue Robison - UTDC Evaluation Comments

| From:    |                           |
|----------|---------------------------|
| To:      | Sue Robison               |
| Date:    | 2/16/2012 4:56 PM         |
| Subject: | UTDC Evaluation Commments |

#### SIEMENS:

Slemens has invested a great deal of time during the development of the RFP and during the negotiations. This was demonstrated by the detail of the technical questions that were raise during these periods. The staffing including the Project Manager has provided the experience needed to accomplish this refurbishment contract and has also proven their ability to perform this type of task with the Communication Retrofit Project. Also being local will benefit the project with the minimum amount of overhead needed to accomplish this task.

#### ALSTOM:

Although Alstom is a large and capable company, the experience working with light rail vehicles raises concerns. The lack of detail and technical questions provided by Alstom's proposal and during negotiation was close to zero, which can potential generate the need for change orders because of the lack of understanding the details needed for this refurbishment. The Project Manager also raised concerns along with his credentials and actual experience with light rail vehicles. Helicopters was his specialty. Also it was stated that the team would be built up once awarded which also causes the concern of not having the in house expertise. It was also acknowledge that the lack of support that Alstom currently provides with the existing products is currently below standards, which will potential cause problems for RT if Alstom is the Car Builder.

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#### RFP No.: 2010043

#### **PROPOSAL EVALUATION FORM**

# Contractor's Name: SIEMENS INDUSTRY, INC.

|              |       | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE |
|--------------|-------|-------------------------------------------------------------------------------|------------------------------|-------|
| Letter       | of Ti | ransmittal                                                                    | Compliant/Non-<br>Compliant  |       |
| Part 1       | - Th  | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    | ଚ     |
|              | A.    | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 4     |
|              | В.    | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 4     |
| Part 2 ·     | Ref   | erenced Projects:                                                             | 3 points                     | 1     |
| Part 3 ·     | Pro   | ject Staffing and Experience:                                                 | 12 points                    | 10    |
|              | Α.    | Staffing Plan and Resumes                                                     | 6 points                     | 5     |
|              | B.    | Project Manager                                                               | 6 points                     | 5     |
| Part 4 -     | Tec   | hnical Submittal:                                                             | 35 points                    | 26    |
|              | А.    | Approach to Accomplish the Work                                               | 9 points                     | 7     |
|              | В.    | Quality Control                                                               | 5 points                     | N     |
|              | C.    | Compliance with Technical Specifications                                      | 8 points                     | 7     |
|              | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |       |
|              |       | Auxiliary Power System                                                        | 3 points                     | 2     |
|              |       | Communications System                                                         | 3 points                     | 2     |
|              |       | Event Recorder System                                                         | 2 points                     | 1     |
|              | Е.    | Project Schedule                                                              | 5 points                     | 4     |
| Sub-<br>OTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 45    |

# **FINAL OFFERS FEBRUARY 15, 2012**

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011



|               | EVALUATION CRITERIA                                                                                                                                                                       | Maximum<br>possible<br>score | SCORE    |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------|
| Part 5 ·      | Price Proposal:                                                                                                                                                                           |                              |          |
| Fo            | orm V-1 - Proposal Price (separately sealed envelope)<br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) | 40 points                    | 32<br>32 |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                               | 40 points                    | 32       |
| Fa            | oposal Security <b>(separately sealed envelope)</b><br>rm V-2A – Bid Bond, or<br>rm V-2B - Irrevocable Letter of Credit                                                                   | Compliant/<br>Non-Compliant  |          |
|               | rm V-3 - Receipt of Addenda                                                                                                                                                               | Compliant/<br>Non-Compliant  | V        |
| Fo            | rm V-4 - Interests and Gratuities Certification                                                                                                                                           | Compliant/<br>Non-Compliant  | V        |
| Fo            | rm V-5 - Campaign Contribution Disclosure Form                                                                                                                                            | Compliant/<br>Non-Compliant  | ~        |
| Fo            | rm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                 | Compliant/<br>Non-Compliant  | V        |
| Fo            | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                   | Compliant/<br>Non-Compliant  | V        |
| Fo            | rm V-8 - List of Principals and Officers                                                                                                                                                  | Compliant/<br>Non-Compliant  | V        |
| Fo            | rm V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                        | Compliant/<br>Non-Compliant  | ~        |
|               | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                   | Compliant/<br>Non-Compliant  | ~        |
| Fo            | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                              | Compliant/<br>Non-Compliant  | V        |
|               | rm V-12 - FTA Buy America Certificate                                                                                                                                                     | Compliant/<br>Non-Compliant  | V        |
| Fo            | rm V-13 - Certificate of Compliance With Drug and<br>cohol Testing and Drug-Free Workplace Act                                                                                            | Compliant/<br>Non-Compliant  |          |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                    | 100 points                   | 77       |

 Excellent
 Good
 Average
 IBelow Average
 Unsatisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactory/statisfactor

UTDC Light Rall Vehicle Refurbishment 2010043/5.19.2011 Strengths/Weaknesses: SIEMENS INDUSTRY, INC.

vious experience with the PM. has KT - resources readily Locale plms. available. · = It appears that significant effort and arch was given to RT questions. res that Siemens has eeling the scen ot standina **FINAL OFFERS FEBRUARY 15, 2012** 

UTDC Light Rail Vehicle Refurbishment

2010043/5.19.2011

PROPOSAL REQUIREMENTS

#### RFP No.: 2010043

PROPOSAL EVALUATION FORM . 

Contractor's Name: ALSTOM

|               |      | EVALUATION:CRITERIA                                                           | Maximum<br>possible<br>scote | SCORE  |
|---------------|------|-------------------------------------------------------------------------------|------------------------------|--------|
| L.etter       |      | ansmittal                                                                     | Compliant/Non-<br>Compliant  |        |
| Part 1        | - Th | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    | ъ<br>Г |
|               | А.   | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 2      |
|               | В.   | Subsystem Suppliers                                                           | 5 points                     | З      |
| Part 2 ·      | Ref  | erenced Projects:                                                             | 3 points                     | 2      |
| Part 3 ·      | Pro  | ject Staffing and Experience:                                                 | 12 points                    | 5      |
|               | Α.   | Staffing Plan and Resumes                                                     | 6 points                     | 3      |
|               | В.   | Project Manager                                                               | 6 points                     | 2      |
| Part 4 -      | Tec  | hnical Submittal:                                                             | 35 points                    | 21     |
|               | A.   | Approach to Accomplish the Work                                               | 9 points                     | 5      |
| ·             | В.   | Quality Control                                                               | 5 points                     | 3      |
|               | C.   | Compliance with Technical Specifications                                      | 8 points                     | 6      |
|               | D.   | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |        |
|               |      | Auxiliary Power System                                                        | 3 points                     | 1      |
|               |      | Communications System                                                         | 3 points                     | 2      |
|               |      | Event Recorder System                                                         | 2 points                     | 1      |
|               | Ę.   | Project Schedule                                                              | 5 points                     | 3      |
| Sub-<br>FOTAL |      | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 33     |

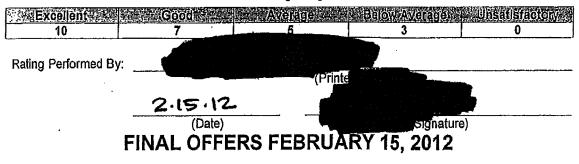
# **FINAL OFFERS FEBRUARY 15, 2012**

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011



PAGE 25

|               | EVALUATION CRITERIA                                                                                                                                                                       | Maximum.<br>posšible<br>ščore | SCORE |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------|
| Part 5        | - Price Proposal:                                                                                                                                                                         |                               |       |
| Fo            | orm V-1 - Proposal Price (separately sealed envelope)<br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) |                               | 40    |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                               | 40 points                     | 40    |
| Fo            | oposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                 | Compliant/<br>Non-Compliant   | V     |
| Fo            | orm V-3 - Receipt of Addenda                                                                                                                                                              | Compliant/<br>Non-Compliant   | レ     |
| Fo            | rm V-4 - Interests and Gratuities Certification                                                                                                                                           | Compliant/<br>Non-Compliant   | ~     |
| Fo            | rm V-5 - Campaign Contribution Disclosure Form                                                                                                                                            | Compliant/<br>Non-Compliant   | V     |
| Fo            | rm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                 | Compliant/<br>Non-Compliant   | ~     |
| Fo            | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                   | Compliant/<br>Non-Compliant   | ~     |
| Fo            | rm V-8 - List of Principals and Officers                                                                                                                                                  | Compliant/<br>Non-Compliant   | ~     |
|               | rm V-9 - FTA Certification Regarding Debarment, spension, Ineligibility and Voluntary Exclusion                                                                                           | Compliant/<br>Non-Compliant   | ~     |
|               | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                   | Compliant/<br>Non-Compliant   | ~     |
|               | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                              | Compliant/<br>Non-Compliant   | ~     |
| Fo            | rm V-12 - FTA Buy America Certificate                                                                                                                                                     | Compliant/<br>Non-Compliant   | r     |
|               | m V-13 - Certificate of Compliance With Drug and<br>ohol Testing and Drug-Free Workplace Act                                                                                              | Compliant/<br>Non-Compliant   | ~     |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                    | 100 points                    | 73    |



UTDC Light Rall Vehicle Refurbishment 2010043/5.19.2011

2.

Strengths/Weaknesses: ALSTOM

Very concerned about PM background and education certification. It appears that Alstom Will be Miring the trom scratch. of team ority lot of detai here didn't A **to** enr to RT questi ons reponses łn, the flop the PM to m ð 1 m **FINAL OFFERS FEBRUARY 15, 2012** 

UTDC Light Rail Vehicle Refurbishment

2010043/5.19.2011

PROPOSAL REQUIREMENTS

#### RFP No.: 2010043

#### PROPOSAL EVALUATION FORM

### Contractor's Name: SIEMENS INDUSTRY, INC.

|               |                                           | EVALUATION CRITERIA                                                           | Maximum-<br>possible<br>score | SCORE |
|---------------|-------------------------------------------|-------------------------------------------------------------------------------|-------------------------------|-------|
| Letter o      | of Tr                                     | Compliant/Non-<br>Compliant                                                   |                               |       |
| Part 1        | - The                                     | Firm; Major Subsystem Subcontractors:                                         | 10 points                     |       |
|               | A. Experience<br>Financial Capacity       |                                                                               | 5 points                      | 5     |
|               | В.                                        | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                      | . 4   |
| Part 2 -      | Ref                                       | erenced Projects:                                                             | 3 points                      | 2     |
| Part 3 -      | Part 3 - Project Staffing and Experience: |                                                                               | 12 points                     |       |
|               | A.                                        | Staffing Plan and Resumes                                                     | 6 points                      | 6     |
|               | В.                                        | Project Manager                                                               | 6 points                      | 6     |
| Part 4 -      | Тес                                       | hnical Submittal:                                                             | 35 points                     |       |
|               | Α.                                        | Approach to Accomplish the Work                                               | 9 points                      | 7     |
|               | B.                                        | Quality Control                                                               | 5 points                      | 5     |
|               | C.                                        | Compliance with Technical Specifications                                      | 8 points                      | 6     |
|               | D.                                        | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                               |       |
|               |                                           | Auxiliary Power System                                                        | 3 points                      | 3     |
|               |                                           | Communications System                                                         | 3 points                      | 3     |
|               |                                           | Event Recorder System                                                         | 2 points                      | 2     |
|               | Ē.                                        | Project Schedule                                                              | 5 points                      | 4     |
| Sub-<br>TOTAL |                                           | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                     | 53    |

### FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rall Vehicle Refurbishment

2010043/5.19.2011



PAGE 25

|               | EVALUATION GRITERIA                                                                                                                                                                              | Maximum<br>- possibile<br>- score | SCORE         |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------|
| Part 5 -      | Price Proposal:                                                                                                                                                                                  |                                   |               |
| Fo            | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) | 40 points                         |               |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                      | 40 points                         | 3.2           |
| Fo            | oposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                        | Compliant/<br>Non-Compliant       | C             |
|               | rm V-3 - Receipt of Addenda                                                                                                                                                                      | Compliant/<br>Non-Compliant       | $\mathcal{C}$ |
| Fo            | rm V-4 - Interests and Gratuities Certification                                                                                                                                                  | Compliant/<br>Non-Compliant       | <u> て</u> こ   |
| Fo            | rm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                   | Compliant/<br>Non-Compliant       | <u> </u>      |
| Fo            | rm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                        | Compliant/<br>Non-Compliant       | C             |
| Fo            | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                          | Compliant/<br>Non-Compliant       | C             |
| Fo            | rm V-8 - List of Principals and Officers                                                                                                                                                         | Compliant/<br>Non-Compliant       | C             |
| Fo            | rm V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                               | Compliant/<br>Non-Compliant       | C             |
|               | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant       | С             |
| Fo<br>Fe      | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                                     | Compliant/<br>Non-Compliant       | С             |
|               | rm V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant       | C             |
| Fo<br>Aic     | rm V-13 - Certificate of Compliance With Drug and<br>cohol Testing and Drug-Free Workplace Act                                                                                                   | Compliant/<br>Non-Compliant       | <u>C</u>      |
| TOTAL         | TOTAL EVALUATION SCORE                                                                                                                                                                           | 100 points                        | 85            |

Below Average Autosatisfactory Excellent Cood Verage Û 5 3 10 7 Rating Performed By: (Printed Name) (Date) FINAL OFFERS FEBRUARY 15, 2012

.

#### RFP No.: 2010043

**PROPOSAL EVALUATION FORM** 

# Contractor's Name: ALSTOM

|                                                              |       | EVALUATION CRITERIA                                                           | Maximum:<br>posšibie<br>scote | SCORE       |  |
|--------------------------------------------------------------|-------|-------------------------------------------------------------------------------|-------------------------------|-------------|--|
| Lette                                                        | of T  | ransmittal                                                                    | Compliant/Non-<br>Compliant   |             |  |
| Part 1 - The Firm; Major Subsystem Subcontractors: 10 points |       |                                                                               |                               |             |  |
|                                                              | A.    | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                      | 4           |  |
|                                                              | В.    | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                      | 3           |  |
| Part 2                                                       | - Ref | ferenced Projects:                                                            | 3 points                      | 3           |  |
| Part 3                                                       | - Pro | ject Staffing and Experience:                                                 | 12 points                     |             |  |
| •                                                            | Α.    | Staffing Plan and Resumes                                                     | 6 points                      | 2           |  |
|                                                              | В.    | Project Manager                                                               | 6 points                      | 0           |  |
| Part 4                                                       | - Tec | hnical Submittal:                                                             | 35 points                     |             |  |
| _                                                            | A.    | Approach to Accomplish the Work                                               | 9 points                      | 3           |  |
|                                                              | В.    | Quality Control                                                               | 5 points                      | 3           |  |
| ****                                                         | C.    | Compliance with Technical Specifications                                      | 8 points                      | 4           |  |
|                                                              | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                               | <del></del> |  |
|                                                              |       | Auxiliary Power System                                                        | 3 points                      | 3           |  |
|                                                              |       | Communications System                                                         | 3 points                      | 3           |  |
|                                                              |       | Event Recorder System                                                         | 2 points                      | 2           |  |
|                                                              | Ε.    | Project Schedule                                                              | 5 points                      | 4           |  |
| Sub-<br>Dtal                                                 |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                     | 33          |  |

# FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011



|               | EVALUATION CRITERIA                                                                                                                                                                              | Maximum .<br>possible<br>score | SCORE    |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------|
| Part 5        | - Price Proposal:                                                                                                                                                                                |                                |          |
| F             | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) |                                |          |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                      | 40 points                      | 40       |
| Fo            | roposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                       | Compliant/<br>Non-Compliant    | Ċ        |
| Fo            | orm V-3 - Receipt of Addenda                                                                                                                                                                     | Compliant/<br>Non-Compliant    | C        |
| Fo            | orm V-4 - Interests and Gratuities Certification                                                                                                                                                 | Compliant/<br>Non-Compliant    | C        |
| Fo            | orm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                  | Compliant/<br>Non-Compliant    | C        |
| Fo            | orm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                       | Compliant/<br>Non-Compliant    | C        |
| Fo            | orm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                         | Compliant/<br>Non-Compliant    | <u>ک</u> |
| Fo            | rm V-8 - List of Principals and Officers                                                                                                                                                         | Compliant/<br>Non-Compliant    | ζ        |
|               | rm V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                               | Compliant/<br>Non-Compliant    | Ċ        |
|               | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant    | С        |
|               | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                                     | Compliant/<br>Non-Compliant    | C        |
| Fo            | rm V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant    | C        |
|               | rm V-13 - Certificate of Compliance With Drug and<br>whol Testing and Drug-Free Workplace Act                                                                                                    | Compliant/<br>Non-Compliant    | С        |
|               | Y                                                                                                                                                                                                |                                |          |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                           | 100 points                     | 73       |

Avenage Below Average Unsatistactory Excellent Good 10 7 5 3 0 Rating Performed By: (Publed Name) 1.5 (Date) FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rall Vehicle Refurbishment 2010043/5.19.2011

### Sue Robison - 2nd UTDC Evaluation

| From:        |                                  |     |
|--------------|----------------------------------|-----|
| То:          | Sue Robison                      | · · |
| Date:        | 2/15/2012 3:25 PM                |     |
| Subject:     | 2nd UTDC Evaluation              |     |
| Attachments: | Proposal Evaluation Weakness.doc |     |

Sue,

The attachment contains my comments backing up my change in scoring the proposals for the UTDC project.

Thanks,



### Alstom Proposal Evaluation Weakness

In the first evaluation and rating the issue of the Program Manager and the qualifications loomed large. I felt the individual first identified did not possess the education qualifications expected of this type of position. Alstom identified a new project manager in the updated submittal. The Project manager, Mr. Telly Sionides possesses a Bachelors Degree from "American State University, of Evanston Wyoming. American State University. Research of American State University said this institution was first established in the State of Hawaii, it was closed by that state and moved to Wyoming and renamed Hamilton University where it was closed by court order and reopened in the Bahamas and named Richardson University. The school is reported to be a diploma mill and was the subject of a 60 Minutes story.

I changed my score for Project manager from a 2 to a ZERO. I lowered my Staffing Plan Resume score from a 4 to a 2, based on this information.

Alstom changed the Auxiliary Power System provider to a respected company known in the transit industry so I raised my score on this item from 2 to 3.

My Alstom score was reduced from the first evaluation from 77 points to 73 points.

#### **Siemens Proposal Evaluation**

I did not change my scoring of the Siemens proposal. I felt Siemens submitted a solid proposal with reasonably well thought out work flow processes.



#### RFP No.: 2010043

### PROPOSAL EVALUATION FORM

# Contractor's Name: SIEMENS INDUSTRY, INC.

|               |       | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>scoles | SCORE |
|---------------|-------|-------------------------------------------------------------------------------|-------------------------------|-------|
| Letter of     | f Tra | ansmittal                                                                     | Compliant/Non-<br>Compliant   | V     |
| Part 1 -      | The   | Firm; Major Subsystem Subcontractors:                                         | 10 points                     |       |
|               | .A.   | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                      | 5     |
|               | В.    | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                      | 4     |
| Part 2 - I    | Refe  | erenced Projects:                                                             | 3 points                      | 3     |
| Part 3 - I    | Proj  | ect Staffing and Experience:                                                  | 12 points                     |       |
| r             |       | Staffing Plan and Resumes                                                     | 6 points                      | 5     |
|               |       | Project Manager                                                               | 6 points                      | 6     |
| Part 4 - '    |       | hnical Submittal:                                                             | 35 points                     |       |
|               |       | Approach to Accomplish the Work                                               | 9 points                      | 8     |
|               |       | Quality Control                                                               | 5 points                      | 4     |
|               | C.    | Compliance with Technical Specifications                                      | 8 points                      | 8     |
|               | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                               |       |
| · ·           |       | Auxiliary Power System                                                        | 3 points                      | 2     |
|               |       | Communications System                                                         | 3 points                      | 2     |
| <b>├†</b>     |       | Event Recorder System                                                         | 2 points                      | 2     |
|               | E.    | Project Schedule                                                              | 5 points                      | 5     |
| Sub-<br>TOTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                     | 54    |

# FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rall Vehicle Refurbishment 2010043/5.19.2011

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|               | EVALUATION CRITTERIA                                                                                                                                                                             | Máximujá<br>i possible<br>score | SCORE        |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------|
| Part 5        | - Price Proposal:                                                                                                                                                                                |                                 |              |
| F             | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) |                                 | 32           |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                      | 40 points                       |              |
| Fo            | oposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                        | Compliant/<br>Non-Compliant     |              |
| Fo            | orm V-3 - Receipt of Addenda                                                                                                                                                                     | Compliant/<br>Non-Compliant     | V            |
| Fo            | orm V-4 - Interests and Gratuities Certification                                                                                                                                                 | Compliant/<br>Non-Compliant     | 5            |
| Fa            | rm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                   | Compliant/<br>Non-Compliant     | V            |
| Fo            | rm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                        | Compliant/<br>Non-Compliant     | V            |
| Fo            | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                          | Compliant/<br>Non-Compliant     | V            |
| Fo            | rm V-8 - List of Principals and Officers                                                                                                                                                         | Compliant/<br>Non-Compliant     | V            |
|               | rm V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                               | Compliant/<br>Non-Compliant     | $\checkmark$ |
|               | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant     | /            |
|               | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                                     | Compliant/<br>Non-Compliant     | V            |
| Fo            | rm V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant     | $\checkmark$ |
|               | rm V-13 - Certificate of Compliance With Drug and<br>whol Testing and Drug-Free Workplace Act                                                                                                    | Compliant/<br>Non-Compliant     | $\checkmark$ |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                           | 100 points                      | 86           |

 Excellent
 Good
 Average
 Below Average
 Subsatistactory

 10
 7
 5
 3
 0

Rating Performed By:

 2/15/12
 (Signature)

 (Date)
 (Signature)

FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

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PROPOSAL REQUIREMENTS

#### RFP No.: 2010043

#### **PROPOSAL EVALUATION FORM**

### Contractor's Name: ALSTOM

|               |       |                                                                               | Maximum<br>possible<br>score | SCORE |
|---------------|-------|-------------------------------------------------------------------------------|------------------------------|-------|
| Letter        | of Tr | ansmittal                                                                     | Compliant/Non-<br>Compliant  |       |
| Part 1        | - The | Firm; Major Subsystem Subcontractors:                                         | 10 points                    |       |
|               | Α.    | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 2     |
|               | В.    | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | ک     |
| Part 2 -      | Ref   | erenced Projects:                                                             | 3 points                     | 1     |
| Part 3 -      | Pro   | lect Staffing and Experience:                                                 | 12 points                    |       |
|               | Α.    | Staffing Plan and Resumes                                                     | 6 points                     | 2     |
|               | В.    | Project Manager                                                               | 6 points                     | Ø     |
| Part 4 -      | Tec   | hnical Submittal:                                                             | 35 points                    |       |
|               | Α.    | Approach to Accomplish the Work                                               | 9 points                     | 4     |
|               | В.    | Quality Control                                                               | 5 points                     | 4     |
|               | C.    | Compliance with Technical Specifications                                      | 8 points                     | 6     |
|               | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |       |
|               |       | Auxiliary Power System                                                        | 3 points                     |       |
|               |       | Communications System                                                         | 3 points                     | 2     |
|               |       | Event Recorder System                                                         | 2 points                     | え     |
|               | E.    | Project Schedule                                                              | 5 points                     | 5     |
| Sub-<br>TOTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 31    |

# FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

|               | EVALUATION CRITERIA                                                                                                                                                                              | Maximum<br>possible<br>iscore | SCORE        |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------|
| Part 5        | - Price Proposai:                                                                                                                                                                                |                               |              |
| Fo            | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) |                               | 40           |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                      | 40 points                     |              |
| Fo            | oposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                        | Compliant/<br>Non-Compliant   | V            |
| Fc            | orm V-3 - Receipt of Addenda                                                                                                                                                                     | Compliant/<br>Non-Compliant   | V            |
| Fc            | rm V-4 - Interests and Gratuities Certification                                                                                                                                                  | Compliant/<br>Non-Compliant   |              |
| Fo            | rm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                   | Compliant/<br>Non-Compliant   | V            |
| Fo            | rm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                        | Compliant/<br>Non-Compliant   | $\checkmark$ |
| Fo            | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                          | Compliant/<br>Non-Compliant   | $\sim$       |
| Fo            | rm V-8 - List of Principals and Officers                                                                                                                                                         | Compliant/<br>Non-Compliant   | · V          |
|               | rm V-9 - FTA Certification Regarding Debarment, spension, Ineligibility and Voluntary Exclusion                                                                                                  | Compliant/<br>Non-Compliant   | $\checkmark$ |
|               | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant   |              |
|               | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                                     | Compliant/<br>Non-Compliant   | $\checkmark$ |
| Fo            | rm V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant   | $\checkmark$ |
|               | rm V-13 - Certificate of Compliance With Drug and<br>schol Testing and Drug-Free Workplace Act                                                                                                   | Compliant/<br>Non-Compliant   | $\checkmark$ |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                           | 100 points                    | 71           |

 From:
 Sue Robison

 Date:
 2/16/2012 7:44 AM

 Subject:
 UTDC Retrofit Project Evaluation Comments

 Attachments:
 Operation

\*\* Confidential \*\* Good Morning Sue...

Here are my selection justification comments for the UTDC Retrofit Project.

Slemens:

Overall they performed a more thorough investigation of the current condition of the vehicles and appear to have a more comprehensive understanding of the condition of the vehicle fleet; therefore, their pricing more accurately reflects the required work.

They have a manufacturing facility and highly trained labor force located in the area where they have immediate access to engineering and additional labor support if required. Additionally, warranty claims can be handled in a more expeditious and timely manner given their resources that are immediately available.

The proposed Project manager has preformed work for RT previously and demonstrated his ability to not only bring the project in on time and within budget - there were no change orders or additional charges and throughout the course of the project and they proposed modifications to the project that enhanced their productivity and offered long term ease of maintenance to RT's maintenance staff.

#### Alstom:

They have no staff or facilities to support the project - all project labor will have to be hired and in the event additional labor or resources are required there will be a delay during the hiring and training process.

The Proposed project manager has limited to no experience managing a project of this nature and has a degree from a college that didn't require any classroom attendance and was the subject of a 60 minutes expose.

Alstom's investigation of the current state of the vehicles was cursory and limited which leads to the very real possibility that they do not fully understand the requirements for successfully completing the project on time or within their proposed pricing.

Access to engineering support and their logistical supply line is hindered due to their being located on the east coast and overseas facilities thus resulting in delays to investigation and resolution of any potential project issues that may/will arise.

Alstom currently has provided the propulsion and auxiliary inverter systems for RT's CAF fleet of vehicles. During proposal interviews the Alstom personnel were unaware of that they had any product being used by RT. Their lack of knowledge of this demonstrates their lack of understanding of RT's fleet and the project requirements.

Alstom warranty and aftermarket support of RT's current Alstom products being utilized by RT is virtually non-existent. RT has struggled to maintain vehicle availability due to the lack of technical and parts support. RT has been working with the FTA for over a year, attempting to obtain replacement propulsion inverter components due to Alstom's inability to meet Buy America requirements which has resulted in our having 6 vehicles out of service. This demonstrates that Alstom's is unable to provide the required aftermarket parts and warranty support required by the project specifications.



#### RFP No.: 2010043

# PROPOSAL EVALUATION FORM

# Contractor's Name: SIEMENS INDUSTRY, INC.

|               |           | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE |
|---------------|-----------|-------------------------------------------------------------------------------|------------------------------|-------|
| Letter of     | fTra      | ansmittal                                                                     | Compliant/Non-<br>Compliant  |       |
| Part 1 - '    | The       | Firm; Major Subsystem Subcontractors:                                         | 10 points                    |       |
|               | А.        | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 4.5   |
|               | B.        | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 5.0   |
| Part 2 - F    | Refe      | erenced Projects:                                                             | 3 points                     | 2.5   |
| Part 3 - F    | Proj      | ect Staffing and Experience:                                                  | 12 points                    |       |
|               | Α.        | Staffing Plan and Resumes                                                     | 6 points                     | 6.0   |
|               | B.        | Project Manager                                                               | 6 points                     | 6.0   |
| Part 4 - 1    | Tec       | hniçal Submittal:                                                             | 35 points                    |       |
|               | Α.        | Approach to Accomplish the Work                                               | 9 points                     | 8.0   |
|               |           | Quality Control                                                               | 5 points                     | 4.0   |
|               | <u>С.</u> | Compliance with Technical Specifications                                      | 8 points                     | 7.0   |
|               |           | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |       |
|               |           | Auxiliary Power System                                                        | 3 points                     | 3.0   |
|               |           | Communications System                                                         | 3 points                     | 3.0   |
|               | •.        | Event Recorder System                                                         | 2 points                     | 2.0   |
|               | E.        | Project Schedule                                                              | 5 points                     | 4.0   |
| Sub-<br>TOTAL |           | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 55.0  |

# FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

PROPOSAL REQUIREMENTS

| 4             | EVALUATION CRITERIA                                                                                                                                                                                     | - Maximum<br>possible<br>score | SCORE |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------|
| Part 5        | - Price Proposal:                                                                                                                                                                                       |                                |       |
| F             | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br><u>RT-determined costs for off-site work)</u> | 40 points                      |       |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                             | 40 points                      | 32    |
| F             | roposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                              | Compliant/<br>Non-Compliant    |       |
| F             | orm V-3 - Receipt of Addenda                                                                                                                                                                            | Compliant/<br>Non-Compliant    |       |
| F             | orm V-4 - Interests and Gratuities Certification                                                                                                                                                        | Compliant/<br>Non-Compliant    |       |
| Fo            | orm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                         | Compliant/<br>Non-Compliant    |       |
| Fo            | orm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                              | Compliant/<br>Non-Compliant    |       |
| Fo            | orm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                                | Compliant/<br>Non-Compliant    |       |
| Fo            | orm V-8 - List of Principals and Officers                                                                                                                                                               | Compliant/<br>Non-Compliant    |       |
| Fo            | orm V-9 - FTA Certification Regarding Debarment,<br>uspension, ineligibility and Voluntary Exclusion                                                                                                    | Compliant/<br>Non-Compliant    |       |
|               | orm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                                | Compliant/<br>Non-Compliant    |       |
| Fc<br>Fe      | orm V-11 - FTA Certification Regarding Clean Air Act and<br>ederal Water Pollution Control Act                                                                                                          | Compliant/<br>Non-Compliant    |       |
|               | orm V-12 - FTA Buy America Certificate                                                                                                                                                                  | Compliant/<br>Non-Compliant    |       |
| Fc<br>Al      | orm V-13 - Certificate of Compliance With Drug and<br>cohol Testing and Drug-Free Workplace Act                                                                                                         | Compliant/<br>Non-Compliant    |       |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                                  | 100 points                     | 81    |

| Excellent           | Good                                   | Average   | Below Average             | Unsatisfactory |
|---------------------|----------------------------------------|-----------|---------------------------|----------------|
| 10                  | _7                                     | . 5       | 3                         | 0              |
| Rating Performed By |                                        | (finite   | ed Name)                  |                |
|                     | <u>Z/15/12</u><br>(Date)<br>FINAL OFFE | RS FEBRUA | (Signatur)<br>RY 15, 2012 | ə)             |

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

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Strengths/Weaknesses: SIEMENS INDUSTRY, INC.

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# FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

PROPOSAL REQUIREMENTS

#### RFP No.: 2010043

PROPOSALEVALUATIONIEORM

Contractor's Name: ALSTOM

|               |       | EVALUATION GRITERIA                                                           | Maximum<br>possible<br>score | SCORE                                  |
|---------------|-------|-------------------------------------------------------------------------------|------------------------------|----------------------------------------|
| Letter        | of Ti | ransmittal                                                                    | Compliant/Non-<br>Compliant  |                                        |
| Part 1        | - Th  | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    |                                        |
|               | A.    | The Firm                                                                      | 5 points                     | 3.0                                    |
|               | В.    | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 3.5                                    |
| Part 2 ·      | - Ref | erenced Projects:                                                             | 3 points                     | 2.5                                    |
| Part 3 ·      | - Pro | ject Staffing and Experience:                                                 | 12 points                    |                                        |
|               | A.    | Staffing Plan and Resumes                                                     | 6 points                     | 2.5                                    |
| <b></b>       | В,    | Project Manager                                                               | 6 points                     | 3.0                                    |
| Part 4 -      | · Tec | hnical Submittal:                                                             | 35 points                    | ······································ |
|               | A.    | Approach to Accomplish the Work                                               | 9 points                     | 3.0                                    |
|               | В.    | Quality Control                                                               | 5 points                     | 2.0                                    |
|               | C.    | Compliance with Technical Specifications                                      | 8 points                     | 5.0                                    |
|               | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |                                        |
|               |       | Auxiliary Power System                                                        | 3 points                     | 1.5                                    |
|               |       | Communications System                                                         | 3 points                     | 3.0                                    |
|               |       | Event Recorder System                                                         | 2 points                     | 2.0                                    |
|               | E.    | Project Schedule                                                              | 5 points                     | 3.5                                    |
| Sub-<br>TOTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 34.5                                   |

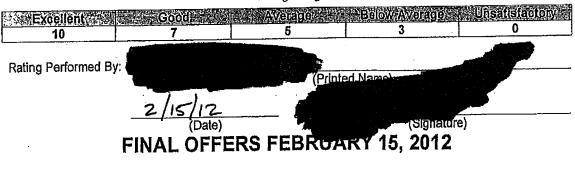
# FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment

2010043/5.19.2011

PAGE 25

|               | ÉVALUATION ORITERIA                                                                                                                                                                              | Maximum<br>possible<br>iscore | SCORE  |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------|
| Part 5        | Price Proposal:                                                                                                                                                                                  |                               |        |
| Fo            | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) | 40 points                     |        |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                      | 40 points                     | 40     |
| Fo            | oposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                        | Compliant/<br>Non-Compliant   |        |
| Fc            | orm V-3 - Receipt of Addenda                                                                                                                                                                     | Compliant/<br>Non-Compliant   |        |
| Fc            | orm V-4 - Interests and Gratuities Certification                                                                                                                                                 | Compliant/<br>Non-Compliant   |        |
| Fo            | rm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                   | Compliant/<br>Non-Compliant   |        |
| Fo            | orm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                       | Compliant/<br>Non-Compliant   |        |
| Fo            | orm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                         | Compliant/<br>Non-Compliant   |        |
| Fo            | rm V-8 - List of Principals and Officers                                                                                                                                                         | Compliant/<br>Non-Compliant   |        |
| Fo            | rm V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                               | Compliant/<br>Non-Compliant   |        |
|               | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant   |        |
| Fo<br>Fe      | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                                     | Compliant/<br>Non-Compliant   |        |
|               | rm V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant   |        |
| Fo<br>Alc     | rm V-13 - Certificate of Compliance With Drug and<br>cohol Testing and Drug-Free Workplace Act                                                                                                   | Compliant/<br>Non-Compliant   |        |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                           | 100 points                    | . 74,5 |



UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

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Strengths/Weaknesses: ALSTOM

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# FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rall Vehicle Refurbishment

2010043/5.19.2011

PROPOSAL REQUIREMENTS

#### RFP No.: 2010043

### PROROSAL EVALUATION FORM

# Contractor's Name: SIEMENS INDUSTRY, INC.

|               |       | EVALUATION SRITERIA                                                           | Maximum<br>possible<br>rscore | SCORE |
|---------------|-------|-------------------------------------------------------------------------------|-------------------------------|-------|
| Letter c      | ofTr  | ansmittal                                                                     | Compliant/Non-<br>Compliant   |       |
| Part 1 -      | • The | Firm; Major Subsystem Subcontractors:                                         | 10 points                     |       |
|               | Α.    | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                      | 5     |
|               | В.    | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                      | ч     |
| Part 2 -      | Ref   | erenced Projects:                                                             | 3 points                      | 2     |
| Part 3 -      | Pro   | ject Staffing and Experience:                                                 | 12 points                     |       |
|               |       | Staffing Plan and Resumes                                                     | 6 points                      | 6     |
|               |       | Project Manager                                                               | 6 points                      | 6     |
| Part 4 -      |       | hnical Submittal:                                                             | 35 points                     |       |
|               | Α.    | Approach to Accomplish the Work                                               | 9 points                      | 8     |
|               | B.    | Quality Control                                                               | 5 points                      | Ч     |
|               | С.    | Compliance with Technical Specifications                                      | 8 points                      | 7     |
|               | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                               |       |
|               |       | Auxiliary Power System                                                        | 3 points                      | 2     |
|               |       | Communications System                                                         | 3 points                      | 2     |
|               |       | Event Recorder System                                                         | 2 points                      | 1     |
|               | E.    | Project Schedule                                                              | 5 points                      | Ч     |
| Sub-<br>TOTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                     | 51    |

# FINAL OFFERS FEBRUARY 15, 2012

|               | EVALUATION CRITERIA                                                                                                                                                                      | Maximun<br>possible<br>score | SCORE |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------|
| Part 5 -      | Price Proposal:                                                                                                                                                                          |                              |       |
| Fo            | rm V-1 - Proposal Price (separately sealed envelope)<br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) | 40 points                    |       |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                              | 40 points                    | 32    |
| Fo            | oposal Security <b>(separately sealed envelope)</b><br>rm V-2A – Bid Bond, or<br>rm V-2B - Irrevocable Letter of Credit                                                                  | Compliant/<br>Non-Compliant  |       |
| Fo            | rm V-3 - Receipt of Addenda                                                                                                                                                              | Compliant/<br>Non-Compliant  |       |
| Foi           | rm V-4 - Interests and Gratuities Certification                                                                                                                                          | Compliant/<br>Non-Compliant  |       |
| Fo            | rm V-5 - Campaign Contribution Disclosure Form                                                                                                                                           | Compliant/<br>Non-Compliant  | •     |
| Foi           | rm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                | Compliant/<br>Non-Compliant  |       |
| Foi           | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                  | Compliant/<br>Non-Compliant  |       |
| Foi           | rm V-8 - List of Principals and Officers                                                                                                                                                 | Compliant/<br>Non-Compliant  |       |
|               | m V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                        | Compliant/<br>Non-Compliant  |       |
|               | m V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                   | Compliant/<br>Non-Compliant  |       |
| For<br>Fee    | m V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                              | Compliant/<br>Non-Compliant  |       |
|               | m V-12 - FTA Buy America Certificate                                                                                                                                                     | Compliant/<br>Non-Compliant  | •     |
| For<br>Alc    | m V-13 - Certificate of Compliance With Drug and<br>ohol Testing and Drug-Free Workplace Act                                                                                             | Compliant/<br>Non-Compliant  |       |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                   | 100 points                   | 83    |

 
 Excellent
 Good
 Average
 Below/Average
 Unsatisfactory

 10
 7
 5
 3
 0
 Rating Performed By: minied (Demo) 2 ろ (Date) FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rall Vehicle Refurbishment 2010043/5.19.2011

#### RFP No.: 2010043

PROPOSALIEVALUATION FORM

Contractor's Name: ALSTOM

|               |      | EVALUATION CRITERIA                                                           | Maximum<br>possible<br>score | SCORE |
|---------------|------|-------------------------------------------------------------------------------|------------------------------|-------|
| Letter of     | fTra | ansmittal                                                                     | Compliant/Non-<br>Compliant  |       |
| Part 1 -      | The  | Firm; Major Subsystem Subcontractors:                                         | 10 points                    |       |
|               |      | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 4     |
|               | В.   | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 3     |
| Part 2 - I    | Refe | erenced Projects:                                                             | 3 points                     | 2     |
| Part 3 - I    | Proj | ect Staffing and Experience:                                                  | 12 points                    |       |
|               | Α.   | Staffing Plan and Resumes                                                     | 6 points                     | 4     |
|               |      | Project Manager                                                               | 6 points                     | 2     |
| Part 4 - 1    |      | hnical Submittal:                                                             | 35 points                    |       |
|               |      | Approach to Accomplish the Work                                               | 9 points                     | 4     |
|               | B.   | Quality Control                                                               | 5 points                     | И     |
|               | C.   | Compliance with Technical Specifications                                      | 8 points                     | 7     |
|               | D.   | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |       |
|               |      | Auxiliary Power System                                                        | 3 points                     |       |
|               |      | Communications System                                                         | 3 points                     | 2     |
|               |      | Event Recorder System                                                         | 2 points                     | 1     |
|               | E.   | Project Schedule                                                              | 5 points                     | 4     |
| Sub-<br>TOTAL |      | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 38    |

# FINAL OFFERS FEBRUARY 15, 2012

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|               | EVALUATION CRITERIA                                                                                                                                                                              | Maximum<br>possible<br>score | SCORE |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------|
| Part 5        | - Price Proposal:                                                                                                                                                                                |                              |       |
| F             | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) |                              |       |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                                      | 40 points                    | 40    |
| Fo            | oposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                        | Compliant/<br>Non-Compliant  |       |
| Fc            | orm V-3 - Receipt of Addenda                                                                                                                                                                     | Compliant/<br>Non-Compliant  |       |
| Fo            | rm V-4 - Interests and Gratuities Certification                                                                                                                                                  | Compliant/<br>Non-Compliant  |       |
| Fo            | rm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                   | Compliant/<br>Non-Compliant  |       |
| Fo            | rm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                        | Compliant/<br>Non-Compliant  |       |
| Fo            | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                          | Compliant/<br>Non-Compliant  |       |
| Fo            | rm V-8 - List of Principals and Officers                                                                                                                                                         | Compliant/<br>Non-Compliant  |       |
|               | rm V-9 - FTA Certification Regarding Debarment, spension, Ineligibility and Voluntary Exclusion                                                                                                  | Compliant/<br>Non-Compliant  |       |
|               | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant  |       |
|               | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                                     | Compliant/<br>Non-Compliant  |       |
|               | rm V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant  |       |
|               | rm V-13 - Certificate of Compliance With Drug and ohol Testing and Drug-Free Workplace Act                                                                                                       | Compliant/<br>Non-Compliant  |       |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                           | 100 points                   | 78    |

Scoring Range

 Excellent
 Good
 Average
 Below Average
 Unsatisfactory

 10
 7
 5
 3
 0

 Rating Performed By:

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UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

### Sue Robison - UTDC comments

| From:   |                            |
|---------|----------------------------|
| To:     | Colleen Elder; Sue Robison |
| Date:   | 2/16/2012 3:59 PM          |
| Subject | UTDC comments              |
|         |                            |

Sorry for the late reply, but here are my comments. Let me know if you have any questions about anything.

#### <u>Siemens</u>

Siemens demonstrates a clear understanding of the project. The information from them was detailed and provided adequate information on the general project plan, work flow, and specific subsystems. The project team has the education and experience commensurate with a project of this size and scope. Siemens has local support and expertise to quickly address any engineering issues that may arise.

#### Aistom

Alstom's proposal is too general and does not provide enough detail to demonstrate that they have a clear understanding of the project. The up front costs in their pricing is not in line with RT's funding plan. The project team does not have the depth that Siemen's proposed team does.

## UTDC LIGHT RAIL VEHICLE REFURBISHMENT

### RFP No.: 2010043

## PROROSAL EVALUATION FORM

# Contractor's Name: SIEMENS INDUSTRY, INC.

|              |       |                                                                               | Maximum<br>possible<br>score | SCORE |
|--------------|-------|-------------------------------------------------------------------------------|------------------------------|-------|
| Letter o     | of Ti | ansmittal                                                                     | Compliant/Non-<br>Compliant  |       |
| Part 1 ·     | - Th  | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    | 6     |
|              | А.    | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 5     |
|              | B.    | Subsystem Suppliers                                                           | 5 points                     | 4     |
| Part 2 -     | Ref   | erenced Projects:                                                             | 3 points                     | 2 7   |
| Part 3 -     | Pro   | ject Staffing and Experience:                                                 | 12 points                    |       |
| 1            | Α.    | Staffing Plan and Resumes                                                     | 6 points                     | 5     |
|              | B.    | Project Manager                                                               | 6 points                     | 5     |
| Part 4 -     | Tec   | hnical Submittal:                                                             | 35 points                    |       |
|              | Α.    | Approach to Accomplish the Work                                               | 9 points                     | 8     |
|              | В.    | Quality Control                                                               | 5 points                     | 5     |
|              | C.    | Compliance with Technical Specifications                                      | 8 points                     | 5     |
|              | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              |       |
|              |       | Auxiliary Power System                                                        | 3 points                     | 3     |
|              |       | Communications System                                                         | <ul> <li>3 points</li> </ul> | 3     |
|              |       | Event Recorder System                                                         | 2 points                     | 2     |
|              | E,    | Project Schedule                                                              | 5 points                     | 5     |
| Sub-<br>OTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 52    |

# FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rall Vehicle Refurbishment 2010043/5.19.2011

|               | EVALUATION CRITERIA                                                                                                                                                                       | Maximum<br>possible.<br>score | SCORE    |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------|
| Part 5 -      | Price Proposal:                                                                                                                                                                           |                               |          |
| Fc            | orm V-1 - Proposal Price (separately sealed envelope)<br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) | 40 points                     | 32       |
| Sub-<br>Total | PRICE SCORE                                                                                                                                                                               | 40 points                     |          |
| Fo            | oposal Securit <b>y (separately sealed envelope)</b><br>rm V-2A – Bid Bond, or<br>rm V-2B - Irrevocable Letter of Credit                                                                  | Compliant/<br>Non-Compliant   | С        |
|               | rm V-3 - Receipt of Addenda                                                                                                                                                               | Compliant/<br>Non-Compliant   | C        |
| Fo            | rm V-4 - Interests and Gratuities Certification                                                                                                                                           | Compliant/<br>Non-Compliant   | C        |
| Fo            | rm V-5 - Campaign Contribution Disclosure Form                                                                                                                                            | Compliant/<br>Non-Compliant   | 0        |
|               | rm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                 | Compliant/<br>Non-Compliant   | <u> </u> |
|               | rm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                   | Compliant/<br>Non-Compliant   | <u> </u> |
|               | rm V-8 - List of Principals and Officers                                                                                                                                                  | Compliant/<br>Non-Compliant   | C        |
| Fo            | rm V-9 - FTA Certification Regarding Debarment,<br>spension, Ineligibility and Voluntary Exclusion                                                                                        | Compliant/<br>Non-Compliant   | C        |
| SC            | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                   | Compliant/<br>Non-Compliant   | C        |
| Fo            | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                              | Compliant/<br>Non-Compliant   | С        |
| Fo            | rm V-12 - FTA Buy America Certificate                                                                                                                                                     | Compliant/<br>Non-Compliant   | <u>C</u> |
| Fo            | rm V-13 - Certificate of Compliance With Drug and<br>cohol Testing and Drug-Free Workplace Act                                                                                            | Compliant/<br>Non-Compliant   | C        |
| TOTAL         | TOTAL EVALUATION SCORE                                                                                                                                                                    | 100 points                    | 84       |

Scoring Range

 Excellent
 Good
 Average
 Below Average
 Unsatisfactory

 10
 7
 5
 3
 0

Rating Performed By:

(Printed Name)

# (Date) (Signature) FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

PROPOSAL REQUIREMENTS

PAGE 26

Strengths/Weaknesses: SIEMENS INDUSTRY, INC.

DETAILED PROPOSAL Presented. Loza situated and pesi story s fam the presented Ih.d **FINAL OFFERS FEBRUARY 15, 2012** \_ · · · \_ · \_ \_ UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

# UTDC LIGHT RAIL VEHICLE REFURBISHMENT

## RFP No.: 2010043

PROPOSALLEVALUATION FORM

Contractor's Name: ALSTOM

|              |       | <b>EVALUATION CRITERIA</b>                                                    | Maximum<br>possible<br>scole | SCORE  |
|--------------|-------|-------------------------------------------------------------------------------|------------------------------|--------|
| Letter       | of T  | ransmittal                                                                    | Compliant/Non-<br>Compliant  |        |
| Part 1       | - Th  | e Firm; Major Subsystem Subcontractors:                                       | 10 points                    | -9     |
|              | A.    | The Firm<br>Experience<br>Financial Capacity                                  | 5 points                     | 5      |
|              | В.    | Subsystem Suppliers<br>Supplier Experience<br>Manufacturing Capability        | 5 points                     | 4      |
| Part 2       | - Ref | erenced Projects:                                                             | 3 points                     | 22     |
| Part 3 ·     | · Pro | ject Staffing and Experience:                                                 | 12 points                    | - 27   |
|              | A.    | Staffing Plan and Resumes                                                     | 6 points                     | 3      |
|              | В.    | Project Manager                                                               | 6 points                     | 0      |
| Part 4 -     | Тес   | hnical Submittal:                                                             | 35 points                    | 31     |
|              | Α.    | Approach to Accomplish the Work                                               | 9 points                     | . 6    |
|              | В.    | Quality Control                                                               | 5 points                     | 5      |
|              | C.    | Compliance with Technical Specifications                                      | 8 points                     | 6      |
|              | D.    | Relevant Design and Manufacturing of Subsystems - New Subassembly Components: |                              | ······ |
|              |       | Auxiliary Power System                                                        | 3 points                     | 3      |
|              |       | Communications System                                                         | 3 points                     | 3      |
|              |       | Event Recorder System                                                         | 2 points                     | 2      |
|              | E.    | Project Schedule                                                              | 5 points                     | 5      |
| Sub-<br>OTAL |       | QUALIFICATIONS AND TECHNICAL SCORE                                            | 60 points                    | 44     |

# FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rall Vehicle Refurbishment 2010043/5.19.2011  $\frac{1}{1}$ 

|               | EVALUATION CRITERIA                                                                                                                                                                              | Maximum<br>spossible<br>score | SCORE |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------|
| Part 5        | - Price Proposal:                                                                                                                                                                                |                               |       |
| F             | orm V-1 - Proposal Price <b>(separately sealed envelope)</b><br>Proposer's Score = <u>Lowest Total Price</u> X 40<br>Proposer's Total Price (including<br>RT-determined costs for off-site work) |                               | 40    |
| Sub-<br>Total |                                                                                                                                                                                                  | 40 points                     |       |
| F             | roposal Security <b>(separately sealed envelope)</b><br>orm V-2A – Bid Bond, or<br>orm V-2B - Irrevocable Letter of Credit                                                                       | Compliant/<br>Non-Compliant   | С     |
| F             | orm V-3 - Receipt of Addenda                                                                                                                                                                     | Compliant/<br>Non-Compliant   | · C   |
| F             | orm V-4 - Interests and Gratuities Certification                                                                                                                                                 | Compliant/<br>Non-Compliant   | C     |
| Fo            | orm V-5 - Campaign Contribution Disclosure Form                                                                                                                                                  | Compliant/<br>Non-Compliant   | С     |
| F             | orm V-6 - Certification Regarding Organizational Conflicts                                                                                                                                       | Compliant/<br>Non-Compliant   | С     |
| Fc            | orm V-7 - Certification Regarding RT's Form of Agreement                                                                                                                                         | Compliant/<br>Non-Compliant   | C     |
| Fo            | orm V-8 - List of Principals and Officers                                                                                                                                                        | Compliant/<br>Non-Compliant   | С     |
|               | orm V-9 - FTA Certification Regarding Debarment,<br>Ispension, Ineligibility and Voluntary Exclusion                                                                                             | Compliant/<br>Non-Compliant   | С     |
|               | rm V-10 - FTA Certification of Restrictions on Lobbying                                                                                                                                          | Compliant/<br>Non-Compliant   | C     |
| Fo<br>Fe      | rm V-11 - FTA Certification Regarding Clean Air Act and<br>deral Water Pollution Control Act                                                                                                     | Compliant/<br>Non-Compliant   | С     |
|               | rm V-12 - FTA Buy America Certificate                                                                                                                                                            | Compliant/<br>Non-Compliant   | С     |
| Fo            | rm V-13 - Certificate of Compliance With Drug and<br>sohol Testing and Drug-Free Workplace Act                                                                                                   | Compliant/<br>Non-Compliant   | С     |
|               |                                                                                                                                                                                                  | <u> </u>                      |       |
| OTAL          | TOTAL EVALUATION SCORE                                                                                                                                                                           | 100 points                    | .84   |

Scoring Range

 Second second

Rating Performed By:

(Printed Name)

# (Date) (Signature) FINAL OFFERS FEBRUARY 15, 2012

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

Strengths/Weaknesses: ALSTOM

ng does not present as mych STar experience ETAIL TO THEIR PROPOSAL. 10 REALLY CONVINCED if they NOT Specifications Technical understa OUY **FINAL OFFERS FEBRUARY 15, 2012** 

UTDC Light Rail Vehicle Refurbishment 2010043/5.19.2011

Attachmed 2

### ALSTOM Overhaul Projects in last 8 years

| Customer | Scope of Work                          | Original Selling Price (\$k) |         | Final Total Selling Price (\$k) |                     | Delta |  |
|----------|----------------------------------------|------------------------------|---------|---------------------------------|---------------------|-------|--|
|          | Rehabilitation of CQ310 & CQ311 Series |                              |         |                                 |                     |       |  |
| MARTA    | Transit Cars                           | \$                           | 239,285 | \$                              | 243,667             | 1.8%  |  |
|          | Remanufacture Breda 2000/3000 Series   |                              |         |                                 |                     |       |  |
| WMATA    | Transit Cars                           | \$                           | 328,816 | \$                              | 357,015             | 7.9%  |  |
|          | Overhaul MTA EMU-type Commuter         |                              |         |                                 |                     |       |  |
| Maryland | Heavy Rail Cars                        | \$                           | 80,633  | \$                              | 82,583              | 2.4%  |  |
| TLN      | Comet II Overhaul of push-pull car     | \$                           | 85,018  | \$                              | 85,118              | 0.1%  |  |
|          |                                        |                              |         | Average %                       | Change from Ori. SP | 3.0%  |  |

age % Change

.



# Scope Transference by Siemens

| Chapter | RT RFP                                | Siemens                           | Alstom                             |
|---------|---------------------------------------|-----------------------------------|------------------------------------|
|         |                                       |                                   | Alstom to provide up to 100%       |
|         | Contractor to replace axles if        | Siemens states only 25%           | replacement without change order   |
| 3       | damaged and unrepairable              | replacement for entire contract   | to SacRT                           |
|         |                                       |                                   | Alstom to replace worn track brake |
|         | Contractor to replace all worn track  | Siemens states RT to supply       | elements with Alstom sourced       |
| 3       | brake elements                        | elements                          | mat'l                              |
|         |                                       | Siemens providing mock-up and     | Alstom using APS that is currently |
|         | Contractor to provide and install     | NRC due to no previous experience | used on UTA's fleet of UTDC cars;  |
| 5       | APS                                   | with vehicle                      | no requirement for mockup          |
|         | Contractor to replace HVAC            |                                   |                                    |
|         | compressor with OEM                   | Siemens states test and replace   | Alstom (Westcode) to replace all   |
| 6       | remanufactured                        | defective units only              | compressors with remanufactured    |
|         |                                       |                                   | Alstom providing DC/DC converters  |
|         | Contractor to install train radio and |                                   | for correct voltage to RT supplied |
|         | digital video recorder, each require  | Siemens makes no mention of       | radios and video monitoring        |
| 8       | DC/DC converter to be supplied        | providing converters              | system                             |
|         |                                       |                                   |                                    |
|         | Contractor to install RT provided     | Siemens states they will provide  | Alstom to install RT provided      |
| 10      | railroad light assembly               | unit common to Siemens SD160 LRV  | railroad light assembly            |
|         |                                       |                                   | Alstom to replace resisters and    |
|         | Contractor to replace defective and   | Siemens states RT to supply       | hardware with Alstom sourced       |
| 10      | damaged power resistors               | elements                          | mat'l                              |

TRANSPORT ALSTOM

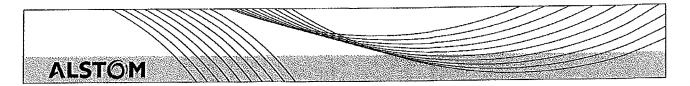
# Transference of Risk by Siemens

Siemens Proposal and negotiations Transfer Risk to RT

- Siemens do not take responsibility for the availability and reliability of their product
- Siemens shorten the warranty period
- Siemens look to receive more cash up front
- Siemens look to increase its benefit in the event of termination for convenience
- Siemens seeks greater indemnification from RT
- Siemens lengthen the duration to deliver the overhauled vehicles

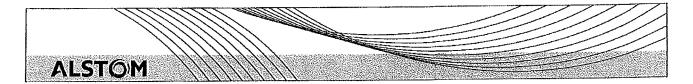
Does this behavior represent "best value" to RT?



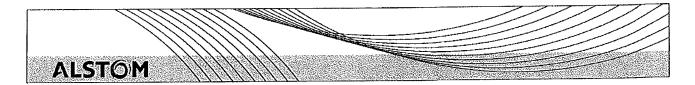


| CLIENT                                                                                                                                                                                                                | SCOPE OF<br>WORK                                                            | QUANTITY                         | AWARD | First Delivery<br>C-Contractual<br>A- Actual | Last Delivery<br>C-Contractual<br>A- Actual | CONTRACT |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------|-------|----------------------------------------------|---------------------------------------------|----------|
| MARTA<br>Contract No.: RFP P4113<br>Tesa Gonzales<br>Program Manager<br>2424 Pledmont Road NE<br>Atlanta, GA 30324<br>Tel: (404) 848-5099<br>Fax: (404) 848-5621<br>E-mail: tgonzales@itsmarta.com                    | Rehabilitation of<br>CQ310 & CQ311<br>Series Transit Cars<br>Value: \$266 M | 238                              | 02/03 | A - 03/05                                    | A- 12/08                                    | 12/10    |
| WMATA<br>Contract No. KK-0154<br>Mr. Fred Brink, Program Manager<br>Washington Metropolitan Area Transit<br>Authority<br>600 Fifth Street, NW<br>Washington, DC 20001<br>Phone: (202) 962-1089<br>Fax: (202) 962-1105 | Remanufacture<br>Breda 2000/3000<br>Series Transit Cars<br>Value: \$328 M   | 364                              | 12/00 | A - 11/02                                    | A - 11/08                                   | 11/10    |
| CTA<br>Contract No. C97F16925<br>Mr. Walter Keevil, Chief Rall<br>Equipment Engineer<br>Chicago Transit Authority<br>3701 W. Oakton Street<br>Skokie, IL 60076<br>Phone: (847) 763-8926<br>Fax: (847) 676-0496        | Remanufacture<br>2600 Serles Transit<br>Cars<br>Value: \$345 M              | 598 total<br>(base +<br>options) | 01/98 | A - 12/98                                    | A - 10/02                                   | 10/02    |
| NJ TRANSIT<br>Contract No. 99RS-705<br>Mr. Jim Schworn<br>NJT Corporate Headquarters<br>Procurement Department<br>One Penn Plaza East<br>Newark, NJ 07105<br>(973) 491-7522                                           | Comet II Overhaul<br>of push-pull car.<br>Value: \$85 M                     | 116 Base<br>+<br>44 Options      | 07/02 | A - 09/02                                    | A - 03/04                                   | 03/04    |

Rhammer 4

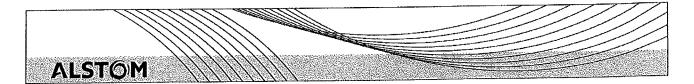


| CLIENT                                                                                                                                                                                                           | SCOPE OF<br>WORK                                                                                                                                                                                      | QUANTITY                   | AWARD | First Delivery<br>C-Contractual<br>A- Actual | Last Delivery<br>C-Contractual<br>A- Actual | CONTRACT<br>COMPLETE |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------|----------------------------------------------|---------------------------------------------|----------------------|
| Metro North<br>Contract No. 200660, 200661,<br>200662 & 200663<br>Mr. Alfred Muir<br>Manager Contract Administration<br>Metro North Railroad<br>347 Madison Ave<br>NY, NY 10017-3739<br>(212) 340-2348 ext. 4034 | Repair of fire<br>damaged cars<br>Value: \$ 1.6 M                                                                                                                                                     | 4                          | 12/00 | A - 01/02                                    | A - 02/02                                   | 03/02                |
| MARYLAND MASS TRANSIT<br>Contract No. 04910140<br>Mr. Thomas Shockley<br>Chief Equipment Engineering<br>Maryland Dept of Transportation<br>6 Saint Paul Street<br>Baltimore, MD 21202-1614<br>(410) 767-3319     | Overhaul MTA<br>EMU-type<br>Commuter Heavy<br>Rail Cars<br>Value: \$82M                                                                                                                               | 80 Base<br>+<br>20 Options | 07/02 | A - 11/02                                    | A - 12/05                                   | 02/06                |
| MBTA<br>Contract No. 622<br>Karen McGann, Mgr. Car Procure.<br>Massachusetts Bay Transportation<br>Authority                                                                                                     | Overhaul Pullman<br>Commuter Rail<br>Coaches<br>Value; \$29.6M                                                                                                                                        | 51                         | 02/95 | A - 12/95                                    | A - 12/96                                   | 12/97                |
| Ten Park Plaza<br>Boston, MA<br>Phone: (617) 222-5502<br>Fax: (617) 222-5349                                                                                                                                     | Options<br>Value: \$4M                                                                                                                                                                                | 6                          | 07/95 |                                              |                                             | 12/97                |
| MBTA<br>Contract No. 625<br>Karen McGann, Mgr. Car Procure.<br>Massachusetts Bay Transportation<br>Authority<br>Ten Park Plaza<br>Boston, MA<br>Phone: (617) 222-5502<br>Fax: (617) 222-5349                     | Overhaul Boeing<br>Vertol LRVs<br>Value: \$15.7 M                                                                                                                                                     | 55                         | 06/95 | A - 01/96                                    | A - 05/97                                   | 05/97                |
| CHICAGO (METRA)<br>Contract No. K22513<br>Richard Tidwell<br>547 W. Jackson Boulevard<br>Chicago, IL<br>Phone: (312) 322-8990<br>Fax: (312) 322-8974                                                             | Remanufacture<br>Highliner<br>Commuter EMU<br>Double Decker rall<br>cars. First 2 cars<br>built in Hornell, the<br>remainder in our<br>Chicago 103 <sup>rd</sup><br>Street facility.<br>Value: \$126M | 140                        | 03/92 |                                              |                                             | 03/98                |



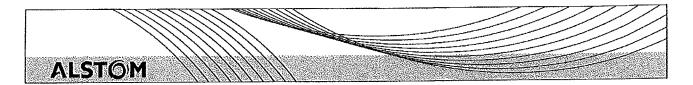
| CLIENT                                                                                                                                                                                   | SCOPE OF<br>WORK                                                                                                 | QUANTITY | AWARD | First Delivery<br>C-Contractual<br>A- Actual | Last Delivery<br>C-Contractual<br>A- Actual | CONTRACT<br>COMPLETE |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------|-------|----------------------------------------------|---------------------------------------------|----------------------|
| METRO-NORTH COMMUTER<br>RAILROAD<br>Contract No. 9003<br>Ron Yutko, P.E., Senior Director<br>Capital Programs<br>420 Lexington Avenue, 11th Floor                                        | Remanufacture M2<br>Series Transit Cars<br>(2 <sup>nd</sup> time M2 cars<br>were<br>remanufactured by<br>ALSTOM) | 48       | 07/93 | A - 03/94                                    | A - 06/95                                   | 11/95                |
| New York, NY<br>Phone: (212) 499-4403<br>Fax: (212) 499-4420                                                                                                                             | Value: \$21.2M<br>Options                                                                                        | 18       | 01/96 | A - 10/96                                    | A 04/97                                     | 04/97                |
| SOUTHERN PACIFIC<br>Contract No. 0760<br>Chet Kikla c/o MK Rail<br>4600 Apple Street<br>Bolse, ID<br>Phone: (208) 389-4814<br>Fax: (208) 389-4867                                        | Value: \$9M<br>Remanufacture of<br>SD-40M2<br>Locomotives<br>Value: \$39M                                        | 43       | 12/93 | A - 04/94                                    | A - 02/95                                   | 02/95                |
| TURBOMECA/AMTRAK<br>Contract No. 565<br>Forrest Felock<br>2709 Forum Drive<br>Grand Prairie, TX<br>Phone: (972) 606-7630<br>Fax: (972) 606-7692                                          | Light Overhaul and<br>Turbine Propulsion<br>Upgrade<br>Value: 1.1M                                               | 2        | 05/94 | A - 12/94                                    | A - 12/94                                   | 12/94                |
| SAN FRANCISCO (MUNI)<br>Contract No. 435<br>Elmer Nelson                                                                                                                                 | Rehabilitate PCC<br>Cars                                                                                         | 14       | 08/92 | A - 08/93                                    | A - 12/93                                   | 12/93                |
| San Francisco Municipal Railway<br>1145 Market St., 6th Floor<br>San Francisco, CA<br>Phone: (415) 554-3456<br>Fax: (415) 554-1837                                                       | Value: \$7.0M<br>Options<br>Value: \$2.3M                                                                        | 3        | 11/93 | A 03/95                                      | A – 03/95                                   | 02/95                |
| NORTHERN VIRGINIA<br>TRANSPORTATION COMMISSION<br>Contract No. 92-3<br>Ed Barber<br>4350 North Fairfax Drive, Suite 720<br>Arlington, VA<br>Phone: (703) 524-3359<br>Fax: (703) 524-1756 | Light Overhaul of<br>Ex-RDC Budd Cars<br>Value: \$4M                                                             | 38       | 01/92 | A - 05/92                                    | A - 10/92                                   | 08/92                |
| NYCT<br>Contract No. R-33539<br>Gene Sansone<br>New York City Transit<br>130 Livingston Street<br>Brooklyn, NY 11201<br>Phone: (718) 694-4484<br>Fax: (718) 694-5510                     | Remanufacture R-<br>44 Series Transit<br>Cars<br>Value: \$101M                                                   | 140      | 03/90 | A - 06/91                                    | A - 09/92                                   | 07/92                |

Alstom Transportation Inc.



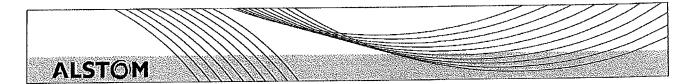
| CLIENT                                                                                                                                                                                                                         | SCOPE OF<br>WORK                                                                                                        | QUANTITY | AWARD | First Delivery<br>C-Contractual<br>A- Actual | Last Delivery<br>C-Contractual<br>A- Actual | CONTRACT |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------|-------|----------------------------------------------|---------------------------------------------|----------|
| NYCT<br>Contract No. R-33579<br>Gene Sansone<br>New York City Transit<br>130 Livingston Street<br>Brooklyn, NY 11201<br>Phone: (718) 694-4484<br>Fax: (718) 694-5510                                                           | Remanufacture R-<br>46 Series Transit<br>Cars<br>Value: \$320M                                                          | 752      | 01/89 | A - 05/90                                    | A - 12/91                                   | 12/91    |
| CHICAGO (METRA)<br>Contract No. K01037<br>Richard Tidwell<br>547 W. Jackson Boulevard<br>Chicago, IL<br>Phone: (312) 322-8990<br>Fax: (312) 322-8974                                                                           | Remanufacture<br>Highilner<br>Commuter Double<br>Decker EMU Rail<br>Cars. All cars built<br>in Hornell.<br>Value: \$14M | 23       | 05/89 | A - 02/90                                    | A - 03/91                                   | 02/91    |
| METRO-NORTH COMMUTER<br>RAILROAD<br>Contract No. 83747<br>Ron Yutko, P.E., Senior Director<br>Capital Programs<br>420 Lexington Avenue, 11th Floor<br>New York, NY<br>Phone: (212) 499-4403<br>Fax: (212) 499-4420             | Remanufacture<br>Comet 1-A Transit<br>Cars<br>Value: \$4M                                                               | 8        | 04/89 | A - 07/90                                    | A - 12/90                                   | 01/91    |
| METRO-NORTH COMMUTER<br>RAILROAD<br>Contract No. 030181<br>Ron Yutko, P.E., Senior Director<br>Capital Programs<br>420 Lexington Avenue, 11th Floor<br>New York, NY<br>Phone: (212) 499-4403<br>Fax: (212) 499-4420            | Remanufacture M2<br>Series Transit Cars<br>Value: \$42M                                                                 | 123      | 09/85 | A - 12/86                                    | A - 07/89                                   | 07/90    |
| NYCT<br>Contract No. R-33561<br>Gene Sansone<br>New York City Transit<br>130 Livingston Street<br>Brooklyn, NY 11201<br>Phone: (718) 694-4484<br>Fax: (718) 694-5510                                                           | Remanufacture R-<br>32-II Serles Transit<br>Cars<br>Value: \$130M                                                       | 295      | 06/88 | A - 01/89                                    | A - 06/90                                   | 06/90    |
| SEPTA<br>Contract No. 330502<br>Pat Nowakowski, Asst. Gen. Mgr.<br>Southeastern Pennsylvania<br>Transportation Authority<br>1234 Market Street, 13th Floor<br>Philadelphia, PA<br>Phone: (215) 580-8280<br>Fax: (215) 580-8282 | Remanufacture<br>Silverliner II/III<br>Transit Cars<br>Value: \$24.2M                                                   | 58       | 08/87 | A - 11/88                                    | A - 06/90                                   | 06/90    |

Alstom Transportation Inc.



| CLIENT                                                                                                                                                                                                              | SCOPE OF<br>WORK                                                     | QUANTITY | AWARD | First Delivery<br>C-Contractual<br>A- Actual | Last Delivery<br>C-Contractual<br>A- Actual | CONTRACT<br>COMPLETE |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------|-------|----------------------------------------------|---------------------------------------------|----------------------|
| NYCT<br>Contract No. R-33547<br>Gene Sansone<br>New York City Translt<br>130 Livingston Street<br>Brooklyn, NY 11201<br>Phone: (718) 694-4484<br>Fax: (718) 694-5510                                                | Remanufacture R-<br>42 Series Transit<br>Cars<br>Value: \$115M       | 282      | 04/87 | A - 02/88                                    | A - 03/90                                   | 11/89                |
| NYCT<br>Contract No. R-33538<br>Gene Sansone<br>New York City Transit<br>130 Livingston Street<br>Brooklyn, NY 11201<br>Phone: (718) 694-4484<br>Fax: (718) 694-5510                                                | Remanufacture R-<br>32 Series Transit<br>Cars<br>Value: \$118M       | 290      | 04/87 | A - 02/88                                    | A - 07/89                                   | 07/89                |
| NJ Transit<br>Contract No. 86042<br>Frank Hopper<br>1 Penn Plaza East<br>Newark, NJ<br>Phone: (201) 491-7462<br>Fax: (201) 491-7597                                                                                 | Remanufacture<br>Arrow-I Transit<br>Cars<br>Value: \$11M             | 30       | 09/86 |                                              |                                             | 09/88                |
| METRO-NORTH COMMUTER<br>RAILROAD<br>Contract No. 000380<br>Ron Yutko, P.E., Senior Director<br>Capital Programs<br>420 Lexington Avenue, 11th Floor<br>New York, NY<br>Phone: (212) 499-4403<br>Fax: (212) 499-4420 | Remanufacture M2<br>Series Transit Cars<br>Value: \$15.1M            | 40       | 02/86 |                                              |                                             | 07/87                |
| NYCT<br>Contract No. R33528<br>Gene Sansone<br>New York City Translt<br>130 Livingston Street<br>Brooklyn, NY 11201<br>Phone: (718) 694-4484<br>Fax: (718) 694-5510                                                 | Remanufacture R-<br>26 / R-28 Series<br>Transit Cars<br>Value: \$42M | 210      | 05/85 |                                              |                                             | 03/87                |
| NYCT<br>Contract No. R31499<br>Gene Sansone<br>New York City Transit<br>130 Livingston Street<br>Brooklyn, NY 11201<br>Phone: (718) 694-4484<br>Fax: (718) 694-5510                                                 | Remanufacture R-<br>29 Series Transit<br>Cars<br>Value: \$41.3M      | 236      | 01/85 |                                              |                                             | 03/87                |

Alstom Transportation Inc.



| CLIENT                                                                                                                                                                                                              | SCOPE OF<br>WORK                                                                                                                       | QUANTITY | AWARD | First Delivery<br>C-Contractual<br>A- Actual | Last Delivery<br>C-Contractual<br>A- Actual | CONTRACT<br>COMPLETE |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|----------|-------|----------------------------------------------|---------------------------------------------|----------------------|
| METRO-NORTH COMMUTER<br>RAILROAD<br>Contract No. 000380<br>Ron Yutko, P.E., Senior Director<br>Capital Programs<br>420 Lexington Avenue, 11th Floor<br>New York, NY<br>Phone: (212) 499-4403<br>Fax: (212) 499-4420 | Remanufacture M2<br>Serles Transit Cars<br>Value: \$34.4M                                                                              | 80       | 03/84 |                                              |                                             | 12/86                |
| NYCT<br>Contract No. R33535<br>Gene Sansone<br>New York City Transit<br>130 Livingston Street<br>Brooklyn, NY 11201<br>Phone: (718) 694-4484<br>Fax: (718) 694-551                                                  | Overhaul and<br>Modification of R-<br>44 Series Transit<br>Cars to AC<br>Propulsion<br>Staton Island Cars<br>(SIRTOA)<br>Value: \$1.2M | 4        | 06/85 |                                              |                                             | 05/86                |
| CTA<br>Walter Keevil, Ch. Rail Equip. Eng.<br>Chicago Transit Authority<br>3701 W. Oakton Street<br>Skokie, IL<br>Phone: (847) 763-8926<br>Fax: (847) 676-0496                                                      | Remanufacture 5-<br>50 Series Transit<br>Cars<br>Value: \$8.3M                                                                         | 45       | 09/84 |                                              |                                             | 12/85                |
| NYCT<br>Contract No. R33519-2<br>Gene Sansone<br>New York City Transit<br>130 Livingston Street<br>Brooklyn, NY 11201<br>Phone: (718) 694-4484<br>Fax: (718) 694-5510                                               | Remanufacture R-<br>36 Series Transit<br>Cars<br>Value: \$23M                                                                          | 214      | 03/83 |                                              |                                             | 03/85                |
| NJ Transit<br>Contract No. 83-0021<br>Frank Hopper<br>1 Penn Plaza East<br>Newark, NJ<br>Phone: (201) 491-7462<br>Fax: (201-491-7597                                                                                | Remanufacture<br>Arrow-II Transit<br>Cars<br>Value: \$22M                                                                              | 24       | 06/83 |                                              |                                             | 12/84                |

#### UTDC LIGHT RAIL VEHICLE REFURBISHMENT | SACRAMENTO REGIONAL TRANSIT DISTRICT

| Siomene Gristoniera Si<br>(Totolino, of deta) | Number of cars | Vongle (type | Vahiolo (telivory Dates |
|-----------------------------------------------|----------------|--------------|-------------------------|
| HOUSTON (18)                                  | 18             | 6 AXLE S70   | 2004                    |
| ,                                             | 19             | 6 AXLE \$70  | 2012                    |
| MINNEAPOLIS (41)                              | 41             | 8 AXLE \$70  | 2013                    |
| CHARLOTTE (20)                                | 16             | 6 AXLE S70   | 2007                    |
|                                               | 4              | 6 AXLE \$70  | 2010                    |
| NORFOLK (9)                                   | 9              | 6 AXLE \$70  | 2009                    |
| TWIN CITIES II (41)                           | 41             | 6 AXLE S70   | 2012                    |
| ATLANTA (4)                                   | 4              | 6 AXLE \$70  | 2011                    |

Note: High floor vehicles are highlighted in blue

### 1.1.2.1 Past Experience "Rail Vehicle" Rebuild

Siemens provides **sole-source accountability** for the entire refurbishment project from removal of existing material to installation and commissioning of the new or refurbished equipment. Siemens has a broad range of "Rail Vehicle" rebuild experience. The following project examples underline the flexible use of Siemens manpower and facilities to provide our rail operating customers with superior rebuild services.

| slemens Gueloniers                           | Sicope                                                                                                                                       | Numberongais                                                               |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Regional Transit -<br>Sacramento             | Retrofit of LRV Communication Equipment, trainline<br>Installation and delivery of new CCTV system.                                          | 28 U2a cars                                                                |
| State of California<br>Caltrans - Sacramento | Limited full vehicle overhaul and upgrade of HVAC and<br>door systems.                                                                       | 66 Bi-Level Intercity Passenger cars                                       |
| MTDB - San Diego                             | Replacing passenger seats.<br>Replacing walking platform on pantograph area.<br>Changing passenger door system to implement step<br>Inhibit. | 71 U2 cars (Seats, Platform, Step Inhibit)<br>52 SD100 (Seats)             |
| Bi-State Development<br>Agency<br>St. Louis  | Replacing HVAC roof units.<br>Replacing Auxiliary Power Supply.<br>Replacing DC blower motors with AC Motors.                                | 31 SD460 cars                                                              |
| San Diego Trolley<br>San Diego               | Replacing Rotary Auxiliary Inverter with Static Inverter.<br>Replacing DC Blower Motors with AC Motors.                                      | 71 U2 cers                                                                 |
| MTA - Los Angeles                            | Installing complete ATS System.<br>Installing complete TWC system.<br>Installing a new warning device/horn.                                  | 26 P2000 cars                                                              |
| ETS - City of Edmonton                       | Adding brake disks to center truck.                                                                                                          | 1 U2 car (Prototype) Remaining Fleet of 36 cars<br>retrofitted by Customer |

### 1.1.3 Customer Loyalty

Siemens repeatedly demonstrates the quality, reliability and superior after sales support of its vehicles through continual customer satisfaction. Our customers place repeat orders after experiencing the quality of our product, the timeliness of our deliverables and our dedication to supporting what we sell. This fact is illustrated by loyal customers who have purchased large quantities of vehicles from Siemens (Denver RTD 172, Portland TriMet 100 vehicles, Salt Lake City UTA 117 vehicles, Calgary CT 157 vehicles, San Diego MTS 191 vehicles).

| Siemens Part 1 - The Firm, Major Subsystem Suppliers |
|------------------------------------------------------|
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| Technical compliance | may          | Written   |      |       |
|----------------------|--------------|-----------|------|-------|
|                      | max<br>Score | proposals | BAFO |       |
| Alstom               |              | 43.0      |      | 38.0  |
| Siemens              | 56.0         | 45.0      |      | 47.0  |
| Gap                  |              | (2.0)     |      | (9.0) |
| · -                  |              |           |      |       |
|                      |              |           |      |       |
|                      |              |           |      |       |

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Sacramento Regional Transit District A Public Transit Agency and Equal Opportunity Employer

Mailing Address: P.O. Box 2110 Sacramento, CA 95812-2110

Administrative Office: 1400 29th Street Sacramento, CA 95816 (916) 321-2800 (29th st. Uph Rai Stationv Bus 36,38,506,67,68)

Light Rail Office: 2700 Academy Way Sacramento, CA 95815 (916) 648-8400

Human Resources Office: Employee Relations Office: 2830 G Street, 2nd Floor Sacramento, CA 95816 (916) 321-3800 (Bw 30,31,34,67,68)

Public Transit Since 1973

www.sacrt.com

February 21, 2012

Jim Lindsay, Vice President and Customer Director Alstom Transportation, Inc. 1001 Frontenac Rd. Naperville, IL 60563

Dear Mr. Lindsay:

Subject: RFP No. 2010043, UTDC Light Rail Vehicle Refurbishment -<u>Notice of Intent to Recommend Conditional Award of Contract</u> Project File/CN: 2010043

The Sacramento Regional Transit District (RT) received two responsive proposals for the subject project on September 8, 2011, from Alstom Transportation, Inc. and Siemens Industry, Inc.

The Selection Committee deemed Siemens Industry, Inc.'s proposal to be the most advantageous to RT for UTDC Light Rail Vehicle Refurbishment.

This letter serves as notification that on Monday, March 12, 2012, RT staff will recommend to the Board of Directors, conditional award of the Contract for UTDC Light Rail Vehicle Refurbishment to Siemens for an amount not to exceed \$19,890,099.70, contingent upon Siemens Industry, Inc's. compliance with the Buy America Pre-Award Audit requirements.

RT appreciates the time and effort all the proposing firms dedicated to this project.

Sincerely,

Sue Robison

Sue Robison Senior Procurement Analyst

Via Email: Jim.Lindsay@Transport.Alstom.com

c: Mark Lonergan, Chief Operating Officer Vern Barnhart, Director, Light Rail Laura Espinoza, Maintenance Superintendent – Light Rail Fernando Barcena, Manager, Contracts and DBE Colleen Elder, Materials Management Superintendent RT Legal Department

February 28, 2012

Mr. Jim Lindsay Preliminary Response to Protest

### SUMMARY RESPONSE

It is RT's policy to hold debriefings only after award and execution of a contract (RT Procurement Policy Manual, Chapter 8.19 Debriefings).

#### ISSUE (1) – EVALUATION PROCESS

You stated that in selecting a prospective contractor, RT is required to select the offer that is most advantageous to RT. It does not have to select the lowest priced offer. While this criteria gives RT discretion, its actions must not be arbitrary or capricious or entirely lacking in evidentiary support. You make further statements regarding the scoring and evaluation.

#### RESPONSE

During the procurement, the Selection Committee scored the technical portion of the written proposals, then opened the sealed price proposals. The final scoring of written proposals resulted in a determination that both firms were in the competitive range. At that juncture, Alstom's total aggregate score was 23 points lower than Siemens' score. The total score possible was 700 points with 420 points available for the technical portion and 280 points maximum for the lowest total price. Alstom scored lower on Part 1-The Firm, Part 3–Project Staffing and Experience, and Part 4–Technical Submittal.

| WRITTEN EVALUATIONS                    | Alstom | Siemens | Point<br>Difference |
|----------------------------------------|--------|---------|---------------------|
| Part 1 - The Firm                      | 51     | 61.5    | 10.50               |
| Part 2 - Referenced Projects           | 16     | 14      | -2.00               |
| Part 3 - Project Staffing & Experience | 40.5   | 77      | 36.50               |
| Part 4 - Technical Submittal           | 166.5  | 200.5   | 34.00               |
| Part 5 - Price Proposal                | 280    | 224     | -56.00              |
| Total:                                 | 554    | 577     | 23.00               |

During negotiations, both firms were treated equally in addressing the issues that were raised. The negotiations were successful in identifying and resolving issues to the satisfaction of the parties involved. The Selection Committee's concern from the outset was that Alstom's proposal was vague and lacked detail. During negotiations, it was apparent that Alstom lacked the <u>infrastructure</u>, <u>tooling</u>, <u>skills</u>, <u>experience</u> and <u>staffing</u> to <u>complete</u> the work. While Alstom has experience in heavy rail refurbishments, there was no evidence to support light rail refurbishment experience. Until Final Offers were requested, the Selection Committee did not know how the final pricing would impact the final scoring; therefore, Alstom remained in the competition until Final Offers were received. Relevant Documents Reviewed

!

| COMMENTS                    | e Complied with governing laws,<br>ordinances, policies and procedures    | Alstom responded with a proposal that<br>was more appropriate for a Lowest Cost<br>Technically Compliant Procurement, not<br>a Best Value Procurement | Sieme                                              | Alstom documentation is significantly less<br>detailed than what was provided by<br>Siemens. RT evaluators determined that<br>it did not demonstrate a clear<br>understanding of the details of the work<br>necessary to fulfill the contract within RT's<br>budgetary estimate | RT's evalua<br>documenta<br>detailed u<br>work th<br>contract w<br>particularly | Alstom's Fir<br>have sufficien                            |
|-----------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------|
| RT'S<br>COMPLIANCE          | Thorough, complete<br>and carefully<br>documented                         | Thoroughly reviewed<br>with documented<br>comments                                                                                                    | Thoroughly reviewed<br>with documented<br>comments | Thoroughly reviewed<br>with documented<br>comments                                                                                                                                                                                                                              | Thoroughly reviewed<br>with documented<br>comments                              | Thoroughly reviewed<br>with documented<br>comments        |
| RELEVANT<br>SECTIONS/ISSUES | All Sections                                                              | All Sections                                                                                                                                          | All Sections                                       | All Sections                                                                                                                                                                                                                                                                    | All Sections                                                                    | All Sections                                              |
| ISSUED BY                   | Sacramento RT                                                             | Alstom<br>Transportion<br>Inc. (sic)                                                                                                                  | Siemens<br>Industry, Inc.<br>Mobility Division     | Sacramento RT                                                                                                                                                                                                                                                                   | Sacramento RT                                                                   | Alstom<br>Transportation<br>Inc.                          |
| DOCUMENT                    | RFP No. 2010043 +<br>Addenda #s 1,2&3,<br>including Protest<br>Procedures | Alstom Proposal<br>submitted September 8,<br>2011                                                                                                     | Siemens Proposal<br>submitted September 8,<br>2011 | RT summary of Proposal,<br>negotiations and related<br>materials from Alstom                                                                                                                                                                                                    | RT summary of Proposal,<br>negotiations and related<br>materials from Siemens   | Final Offer submitted by<br>Alstom on February 8,<br>2012 |

9 of 16

Attachment F.

| H       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ß        | STATEMENT OF COMPLIANCE | MPLIANCE  | ALL AL COMP | STO THEY AND | ALL AR SOUND SOND AND AND A THE COMMENT                                                                                                                                                                                                                                                                                                    |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|-----------|-------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| #<br>99 | Clause # REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ADDENDUM |                         | COMMENT   |             |              |                                                                                                                                                                                                                                                                                                                                            |
| н       | This countrient contains the "featural Specifications for the returbistment of the UTDC vehicles and vehicle systems, describes<br>the program management and program support requirements, and defrees other deliverable goods and services to be furtished<br>by the Contractor as part of the returbistment Contract.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |          |                         |           | <br>        | ×            | Understood. No further comment.                                                                                                                                                                                                                                                                                                            |
|         | The Technical Specifications are orgonized by section and sub-section. The sub-sections include the required work to be<br>performed on each system and are correlated to the bulk in the Contract of eneral Andrologic work may be<br>required or desided in such the performation of the Section and the androcal for the Androcal and work may be<br>additioned work that would be to RTS benefit and sound a proposal doubling the proposal and work story. For<br>additional work that would be to RTS benefit and sound a proposal doubling the proposal and story and benefit RT<br>different any Contractor proposal and may, at RTS determin, and south to the Contract. Where work under these<br>Technical Specifications requires RT "approval", such approval must be contract. Whether or not such a requirement<br>technical specifications requires RT "approval", such approval must be contract. Whether or not such a requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |                         |           |             |              |                                                                                                                                                                                                                                                                                                                                            |
| 1       | The period appendix of this inductionest program induct the litens listed below. The Contractor must assure these objectives are mot in all appears of its work.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          |                         |           | <br>        | ×            | Understood. No further comment.                                                                                                                                                                                                                                                                                                            |
|         | <ol> <li>To ensure the condutation of userial service life of the vehicles (for the second half of the vehicles' design IIIc).</li> <li>To improve system and passanges safety</li> <li>To improve system and passanges and passange</li></ol> |          |                         | • <u></u> | <br>        |              |                                                                                                                                                                                                                                                                                                                                            |
|         | 9. To assist RT during the safety certification process as meeded                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |                         |           | <br>_       |              | industrial is and of deliverables will reader SwOT with the                                                                                                                                                                                                                                                                                |
| 1       | General Regitements<br>These Technical Specifications and other provisions of this Contract constitute the requirements for the relaribithment of the<br>Three versices, all versices must be dissolved as required and program for registration replacements components.<br>PLTD versices, all versices the relation texture and othered with a standard of wordsmarket that is components<br>the required service the relations, maintenance, and othered with a standard of wordsmarket that is commensed with<br>the required service the relations, maintenance, and soft-the of these Technical Specifications. The versice<br>components must either the replaced highlow, overhauled, upgoded to a new design, or a combination thereof is required in<br>components must either the registration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          | ×                       |           | <br>        |              | procedure and chords. Weight log of each vehicle watter placed in the<br>second second chords for the second and management onspond<br>process. To include sech intrinders, software and hardware try levels.<br>PMEs performed, etc.<br>Note: IAs part of project, will require joint CCB to detarmine any required<br>requested changes. |
|         | Contractor is responsible for all activities necessary to comply with this Contracto. Contractor must perform all management, contract, development, trapection and treating work.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                         |           | <br>        |              |                                                                                                                                                                                                                                                                                                                                            |
|         | In performing work under this Contract, Contraction must not adversely affect any equipment or systems not part of the<br>Contract. Regimment that is not relationed must not be destroyed, degraded, dumaged, or affectd, and must maintain the<br>received feeel of functionality, safety, makealedshifty, and performance.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |          |                         |           | <br>        |              |                                                                                                                                                                                                                                                                                                                                            |
|         | Connector must keep a weight log throughout the industiment program. The current modifinant vehicle and adde weights<br>must not increase due to any upgrades or equipment tradiscinent. Connectors must notify fit of any possible bronses in<br>weight and the exercised megnitude as soon as possible. The increase and/or must notify fit of any possible bronses in<br>and approved by it is weight.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |                         |           | <br>        |              |                                                                                                                                                                                                                                                                                                                                            |
|         | On request, and to the extent andtolke, KT will allow Contractor access to the original UTDC vehicle manuals, drawitys,<br>procedures, and reports. Contractor must verify the accuracy of such materials. Allow on request, and to the extent available,<br>RT will provide Contractor with additional information(socumentation for other vehicles in the RT floar the RT light rail<br>pistern is a whice in the contractor with additional information for other vehicles in the RT floar the RT light rail<br>pistern is a whice and the such additional information for other vehicles in the RT floar the RT light rail<br>pistern is a whice additional information for other vehicles in the RT floar the RT light rail.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |                         |           | <br>        |              |                                                                                                                                                                                                                                                                                                                                            |
|         | In some instance, the performance of both retarbished and non-retarbished equipment and systems may affect Contractor's<br>ability to meet the standards and requirements of this Contract. If Contractor believes the performance of more-ethniched<br>parts wall perent complement with 6 Contract requirements, Contractor and render and present a proposed<br>to the heat, while the performance of the Contract requirements's of 15 and present approach<br>action plat, while and additional week contract requirements's of 15 and contractor to the octark<br>requirements's of 15 and contract requirements's relations are more the proposed for relatibishment to the octark<br>required to permit Contractor requirements's relations and the proposed action plan mark to sub-<br>statistical and additional week does not degrade the vehicle proformance below the per-relatibishment; and CD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          |                         | - <u></u> | <br>        |              |                                                                                                                                                                                                                                                                                                                                            |

| 1     | All rechristicat and incir equipment provided must provide full performance without failure or dographism of service within the<br>Soccrambio environment and KT's treack system. The pisolwigh dimutic concludes, the KT car wash factiny, are<br>found in Soccrambia.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | X      | Understood. Information to be included in all engineering specifications for W systems and general purchasing specification for project |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 01    | CLIMATIC CONDITIONS / SACOUNDITIO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |        |                                                                                                                                         |
| L L L | 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |                                                                                                                                         |
| × a z | Ndetwaren hannellty 14% - Roadman hannellery 100%<br>Precipiera istoria istoria istoria 200m more hann<br>Kandonan scholar alse hi 34 hannes > 100mm nor hann                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |                                                                                                                                         |
| 04.   | Corr weath spray<br>Bitnes and with 1.2 nonzek/car stde, fow tank 50 galants per minute for 24 nozzies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                                                                                                                                         |
| Pa    | Performance descriptions of the second of the second of the second of the second of the findings, X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        | Indestood. No further comment.                                                                                                          |
| 50    | Contractor must learning any issues encounting the scope of the Centract Documents that need to be addressed to fulfill the objectives per Section 1.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                                                                                                                                         |
| U IL  | Controctor must submit to RT supported Contract changes on a per-vehicle basis for all additional work considered necessary.<br>RT will review each issue and decide how to proceed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        |                                                                                                                                         |
| J.    | Contractor must perform all spectrad work required to completely and autishcurryl refutebat the vehicles as defined by the<br>Technical Specifications, Including removed, cleaning, historicalori, relicabilition, and tecting of all equipment not specified for                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |                                                                                                                                         |
|       | lovertaut or upgrading.<br>Contractor must dean al tasts receiving tublication must be dearned with accordigits solvents and accivition to                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |                                                                                                                                         |
|       | accordance with the OBM specification. Corrector must regione all geolete and sould on disastembled devipment. Contractor<br>must provery prepare all pack or association for evaluation and operation that All component conv. cluster matering, and<br>fittimes used are subject to TTV minima opproved units contractive spectral in these Technical Spectradionins.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                                                                                                                                         |
| - v.a | For missing or damaged components, Contractor must replace same in-kuind with new components. Before acquiring new<br>components, Constants must cantal for the check seatability of replacements parse. When the replace type components are no<br>foreign events and foreigness, service pervent components of administration design have careford for the manual foreigness of the provent by the pervent component of administration design may be used too after written approval by the provent of the pervent constant of the pervent components of administration design may be used too prior written approval by the pervent of the per |        |                                                                                                                                         |
|       | RT.<br>Ucoractor must overhave and uses assembles in accordance with UseN standards and requirements, undess onterwise spectrated<br>correctored in writing by RT. Earlt statescentables or components must be replaced in taid with new parts when required due<br>to improper performance, physical damage, etc., to complete the assembly overhaud. All rectuit equipment must include any                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |                                                                                                                                         |
| ŕ     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 9      | Understood. See deliverables chart.                                                                                                     |
|       | Contractor and Its suppliers must employ a system of configuration management that will ensure all observable exit thems of<br>experiments are of the same configuration on a per car bass, that all charges are approved, recorded, and that Implementation<br>is confirmed in all exciptionst and its associated data. Configuration management must begin during design and must be<br>employed through final scoreported.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |                                                                                                                                         |
| -     | Contractor must present the configuration management plan in accordance with SC 7 Quality Assurance/Quality Controls<br>recultments.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        |                                                                                                                                         |
|       | Desilvery of Vesticidess for Freem than Constructure<br>Contractors made produced when as RTS submy. Contracture may propose to use an alternate budget for RTS<br>contraction. Reportings of interfaced when the product on or offship, RT will provide only how vehicles at a three for<br>retarbishment work in acconductor with the project schedula.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ¥<br>× | ket applicable, as all returbliment work will be performed at Stockt stat.                                                              |
|       | In the event RT approves use of a alternate fourth, Cartinoador must take delivery of the vetticles at the RT maintenance<br>focusty in a colorent or A Controador to be backwhood the verkices (and first wry monore material), and approve<br>focusty, and observes the completed verkices for ST and income caller). Contracture must base existency of all verbices on RTF<br>backs and phose the completed verkices for ST and and and a Contracture must base existency of all verbices on RTF<br>backs and so the or the ordered verkices for ST and and and a contracture of a large existence for the verbices.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |                                                                                                                                         |
| 191   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5      | Understood. No further comment,                                                                                                         |
|       | Contractor must prepare and submit for RT sporoval an inspection and test plan and checklos for the Joint Inspections. The<br>Inspection Lts will also be used for noting any miscellanceus deterpancies found during the inspections and tests, and both<br>parties will also the completed fasts. Contractor must perform functional tests as needed to confirm the proper operation of all<br>explored on the response.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |                                                                                                                                         |
|       | For those components that are not to be replaced as part of the redubishment program, the John Outpoing Inspection will                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                                                                                                                                         |

| Clause & REQUIDERINT     Allow & REQUIDERINT     The work score of an onhorebolio of the work score of a combutedio of the work score of passingly and the second and reset that and reset and an event and reset. Insuch that work score of passing and reset and re |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ADDENDUM | ADDENDUM   FULLY COMPLY   COMPLY W/ | COMPLY W | DO NOL |              | POR INFO ONLY TTS End COMMENT                                                                                                                                                                                                                                                                                                                               |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |                                     | COMMENT  | COMPLY |              |                                                                                                                                                                                                                                                                                                                                                             |
| <ul> <li>(2) Jinspert, repair, tru-</li> <li>(3) Reguir and regular</li> <li>(4) Replace refit quarter</li> <li>(5) Streptord, regular and</li> <li>(6) Replace all passent</li> <li>(7) Regular and regular of</li> <li>(8) Perform Boolterd</li> <li>(9) Supphyther orb of</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | שרפאל 50000<br>לאוקר הקרפון האיר בטאס המאלוגים אל היהוארצליות פונגורען לארווג אל היה אור וובסוגורעו האיר וואראי אל<br>נו) לאוקר הקרפון האיראל באיר היה ארקטאיד נאסמצור מיהוגים יוז לא כי איראלים ווהסוגורעו של היאראל איר או הקרגורכל<br>מיראנג                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          | ×                                   |          |        |              |                                                                                                                                                                                                                                                                                                                                                             |
| <ul> <li>(3) Repair and regularity</li> <li>(4) Replace reih gutter</li> <li>(5) Trepost, regular and</li> <li>(6) Replace all pussers</li> <li>(7) Replace and regular of</li> <li>(8) Perform localitizer out of</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | (2) Inspect, repair, touch-up paint and receal fiberglass end mesis as required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          | ×                                   |          | •      | <br>         |                                                                                                                                                                                                                                                                                                                                                             |
| <ul> <li>(4) Replace reh quitter</li> <li>(5) Prepost, repair and</li> <li>(6) Replace all pussent</li> <li>(7) Replace and reputier</li> <li>(8) Perform beak replaced of</li> <li>(9) Reputation out of</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | burner side skirts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          | ×                                   |          |        | <br>         |                                                                                                                                                                                                                                                                                                                                                             |
| <ul> <li>(5) Erepoed, render and</li> <li>(6) Replace all passens</li> <li>(7) Replar and replace</li> <li>(7) Perform boolitied r</li> <li>(9) Reuphototier cop of</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | s with new design                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |          | ×                                   |          |        |              |                                                                                                                                                                                                                                                                                                                                                             |
| <ul> <li>(6) Replace all passens</li> <li>(7) Repair and repairt</li> <li>(8) Perform boolkter cab or</li> <li>(9) Rouphobler cab or</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | i repairst toof stretuids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          | × >                                 |          |        | <br>         |                                                                                                                                                                                                                                                                                                                                                             |
| <ul> <li>(7) Repair and repaint</li> <li>(5) Perform localited n</li> <li>(9) Rougholster cab of</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (6) Replace all passenger and cab side whichwis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          | × :                                 |          |        |              |                                                                                                                                                                                                                                                                                                                                                             |
| <ul> <li>(3) Perform localized n</li> <li>(9) Roughholder cab of</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (7) Repair and repairst interior surfaces as required by KT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          | × :                                 |          |        |              |                                                                                                                                                                                                                                                                                                                                                             |
| (9) Reupholster cab of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | (3) Perform localized repair of nutber flooring where damaged and/or delaminated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          | × :                                 |          |        | <br>         |                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | perstur's sext                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          | ×                                   |          |        |              |                                                                                                                                                                                                                                                                                                                                                             |
| (10) Replace operator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | (10) Replace operator's desk and console switches as needed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          | × :                                 |          |        | <br>         |                                                                                                                                                                                                                                                                                                                                                             |
| (11) Clean all Interfor:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | (11) Crean all interior surfaces and ductmork in and outside of the vehicle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | _        | ×                                   |          |        |              |                                                                                                                                                                                                                                                                                                                                                             |
| (12) Replace seat both                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | (12) Replece seet bottoms and best custions as meeted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          | <b>×</b> :                          |          |        |              |                                                                                                                                                                                                                                                                                                                                                             |
| (13) Inspect and repair door punck                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | tr door parrets                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          | × :                                 |          |        |              |                                                                                                                                                                                                                                                                                                                                                             |
| (14) Remove bottom stap spacers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | sacrets day                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          | × :                                 |          |        | <br>         |                                                                                                                                                                                                                                                                                                                                                             |
| (LS) Inspect and repair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | (15) inspect and repair exterior articulation befows                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |          | × :                                 |          |        | <br>         |                                                                                                                                                                                                                                                                                                                                                             |
| (15) Replacement of a<br>(17) Perform addition<br>Dones. This work indu-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | (15) Projectment of exercise side minors<br>(17) Protectm exectional work on the velicle Interior to eccommodate edienty and handlappood boarding as specified in Section 7,<br>Doors. The work induces the accilion of a bridgepath and removal of the adjacent windlangers and the frant longuadrial figure)<br>const.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          | × ×                                 |          |        |              |                                                                                                                                                                                                                                                                                                                                                             |
| (128) Install hand stra                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | sites there are inseed there Rule                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |          | x                                   |          |        |              |                                                                                                                                                                                                                                                                                                                                                             |
| 2.1 General Requirements<br>The costing vehicles are 25<br>observed on the vehicles, p<br>manual release endosures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | General Requirements<br>The costrary or should send a rest in need of neutralisment both on the costrary and the introfler. Corresion has been<br>observed on the bredded, particularly in the vicinity of the isuminum window frames, and introfler offlers, and door<br>manual redoor endooreds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |                                     |          |        | <br>×        |                                                                                                                                                                                                                                                                                                                                                             |
| Contractor must rest.<br>reasonable discretion.<br>windscreens that be<br>to remove with deart<br>Maticulary of defectiv<br>replacement parts are                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Contractor must restore the interfor and eacher of the vehicle to provide an acceptable appearance, as determined by RT in Its<br>rescondule discretion. Jimitor walk on offent parking, and mitiations from home standards, such mone, such<br>interformer with determining the analysis of manipole or manipole state state in the "featings" Specifications, or impossible<br>to stateme with determining the analysis of manipole or manipole and accessible appears, must be appearded<br>handlaged of decidents may all registerations for the revenues of accessible must be the accessible. It<br>replacements per state and any direct Contractor by register statements for the analy by the ST respective. It<br>replacements pers are not available at XT, NT may direct Contractor Specification under be requested in writing to<br>the accessible appears. |          |                                     |          |        |              |                                                                                                                                                                                                                                                                                                                                                             |
| 2.2 Specific Regularements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          | -                                   |          |        |              |                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Extender Finishing<br>Contractor must inspect carbo carbo and develop a recuir work plan for each vehicle prior to connected the requir work.<br>The recurs work plan must be submitted for KT suproval. The work plan must obtained for the connected plan requirement.<br>The regression connector subcords sub-tender explanation end, prod and underfloor must be contributed for any<br>physical dependence controls of sub-tender for the plant.<br>- Reservers and Cab side Vehiclew openings: as specified to Section 2.2.6, all passesses and cab side Vehiclew reproduce for any<br>inter, all leping carbose task which exponsing as specified to Section 2.2.6, all passes are ablyed to reducting processes before the<br>rew vehiclew are related.                                                                                                          |          | ×                                   |          |        | <br>         | A specification returns: developing trans processes. Will return<br>development of request dos, reporter mail sourchy, manufacturing<br>process review and then reveat based on customer requirements.<br>Happendie engineering to procureforeate global regular process to dar body,<br>and site engineer to provide specific instruction to kehrsiciales. |
| The portion of the ca<br>accordance with the<br>approved by RU in w<br>spproved procedures<br>AQND Rufe 45 and 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | The portion of the carbody, or any of 1% components, recording pairt must be pairtaid as required by the Specification and in<br>accordance with the specified calor scheme. Ti has selected DuPort DRGM 2000 or an equivalent polymethere system<br>approved by CT in without, as the point system for the voldeds. Granetter must use R darpover produces and fair<br>approved produces the instituty process. The system must be VGC compliant for the San Francisco By Aves<br>AQND Rule 458 and Sacametab Metropolitan Ar Quality Management District Rule 459 for Group II Vebidos and Extinents.                                                                                                                                                                                                                                                                   |          |                                     |          |        | <br>         |                                                                                                                                                                                                                                                                                                                                                             |
| Contractor must sub<br>with the paint manus<br>assure a continuing -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Contractor must submit carbody and component painting procedures to FT for written sponroal. The procedures must<br>with the paint immittationaries recommendations. Comparized with the stratight must be provided and sponroad e<br>secures to stratisticationaries fractionary statists in codes used on the webby, submitted for spons department                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          |                                     |          |        | <br><u>.</u> |                                                                                                                                                                                                                                                                                                                                                             |

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| Clerce | Clarge # REFOUTIENENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ADDENDUN   |            | COMPLY W/ | DO NOT<br>COMPLY | OUT OF SCOPE | FOR INFO ONLY | OUT OF SCOPE FOR INFO ONLY TLS END COMMENT                                                                                   |
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| m      | WORX SCOPE<br>The work score conciss of a contribution of refurbishing existing items and isocilling new items as listed below.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | ×          |           |                  |              | ×             | For all material to be provided by Social effects $R_{ij}$ it is important for                                               |
|        | (1) Disassemble, inspect, and reassemble the trucks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | : ;        |           |                  |              |               | מרטיבו נוצאו עד אונוכוקאונו הופנו מאונו מיצאיר ואכוג כו העונסוא נוסבי הטג<br>אוינבוד איירא ורווינה אייר געווינייט ביזישיוונא |
|        | (2) Replace primary suspersion chemons(*)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | <b>x</b> ; |           |                  |              |               |                                                                                                                              |
|        | (3) Redisce secondary suspension of back?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | ×          |           |                  |              |               |                                                                                                                              |
|        | (4) Replace vertical shock utsurbers and stops(*)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | <b>x</b> ; |           |                  |              |               |                                                                                                                              |
|        | (5) Replace lateral stock absorbers and stops(*)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | ×          |           |                  |              |               |                                                                                                                              |
|        | (6) Resurface or replace triction braise disks (*)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            | × :        |           |                  |              |               |                                                                                                                              |
|        | (7) Resistor wheel tires and rutbler rings(*)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | <b>×</b>   |           |                  |              |               |                                                                                                                              |
|        | (3) Replace journal bearings(*)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | <b>x</b> > |           |                  |              |               |                                                                                                                              |
|        | (9) Replace bushings in traction links                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | <b>x</b>   |           |                  |              |               |                                                                                                                              |
|        | (10) Overhaul or repictor both end-and canter buck slewing rapps(*)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | <b>x</b> ; |           |                  |              |               |                                                                                                                              |
|        | (11) Represe bushings in the track brake beams                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | × ;        |           |                  |              |               |                                                                                                                              |
|        | (12) Replace companies(")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | <b>K</b>   |           |                  |              |               |                                                                                                                              |
|        | (12) Replace tradion motors(")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | <b>x</b>   |           |                  |              |               |                                                                                                                              |
|        | (14) Replace fleathe couplings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | ×          |           |                  |              |               |                                                                                                                              |
|        | (15) Replace thatton brake aduators(*)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | <          |           |                  |              |               |                                                                                                                              |
|        | (16) Overhaud or replace ground brush assemblies(*)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | < >        |           |                  |              |               |                                                                                                                              |
|        | (17) Replace leveling values and links(*)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | <          |           |                  |              |               |                                                                                                                              |
|        | (18) Replace all wirtra and piping as meridaned below.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | <          |           |                  |              | >             |                                                                                                                              |
|        | Note: (*) The Contractor shall return the removed units to RT and initial the returbished or new units supplied by RT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |            |           |                  |              | <             |                                                                                                                              |
| 2      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |            |           |                  |              | <             |                                                                                                                              |
| 3      | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |            |           |                  |              |               |                                                                                                                              |
| 125    | <sup>1</sup> Intercontensions<br>descentible instances of reasonable all budie according to the carbonidae reductors induced in Sociators 4.6 and<br>4.7 the UTCC concrete Heatwares: To heatware and Sociation 4 of the UTC Heavy Payars Mouse. All parts removed control<br>descentible much heat heatwares in the news and Sociation, a concil mouthy heatwares, baselings and other consumable parts which<br>inters he reploted with new parts supplied by the Contracture. R1, at its option, may return the parts as it, returbish the parts<br>inters he reploted with new parts supplied by the Contracture. R1, at its option, may return the parts as it, returbish the parts. |            | ×          |           |                  |              |               |                                                                                                                              |
| 32     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Addendum 1 | ×          |           |                  |              |               |                                                                                                                              |
| 323    | After testing, the tracks must be repetited in a black color approved by KT.<br><sup>3</sup> Stewing Rings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |            |           |                  |              |               |                                                                                                                              |

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| Concrete: must report demonster demonst frems, or terms that currents he scarested by demond, address of the carbon static report demonster demonst. Agent or regionement will be at the carbon static report demonst carbon. Agent or regionement will be at the carbon static report demonster demonst. Agent or regionement will be at the carbon static report demonster demonst. Agent or regionement will be at the carbon static report demonster demonst. Agent of the carbon static report demonster demonst. Agent of the carbon static report demonstration static reports are not here searces at mean the exploring terms. The exploration static reports are the carbon static report reports and resonance and the carbon static reports are the carbon static reports and the carbon static reports are the carbon static reports and the carbon static reports and the carbon static reports are the carbon static reports and the carbon static report                               |      | <ul> <li>NUC diffusers:</li> <li>A Month of the factors (post) sides of kenses, reflector and factors)</li> <li>Complex factors (post)</li> <li>Complex factors (post)</li> <li>A couport sides, whickleds, and surfaces of the cab</li> <li>A couport site, windows, whickleds, and surfaces of the cab</li> <li>La couport site, comes, panels and surfaces of the cab</li> <li>La couport site cabos:</li> </ul> |            |   |           | <br> |  |  |   |
| Contractor must not retrain layor mouth and mouth and match and match and match and and beneficing and and beneficing and and beneficing in match the explore match and and beneficing in the induction of the passesper consection must retrain the explored in match the explored in match match match match and and beneficing in the induction mass remove east theorem and match and and beneficing in the induction mass remove east theorem and match match and and and beneficing in the induction mass remove east theorem and intervention mass remove east theorem of the parentic with new entries, provided by RT.<br>Contractor must remove east fractional induction to the parentic with new entries, provided by RT.<br>Contractor must remove east fractional and safety trading replaced with OCH matched or with RT septement in the match report of the parentic for approved in and the match report of the parentic for explored and match reports and match report to the parentic for approved in the theorem and the match report of the state through parentic in the match report of the parentic for approved in the hold on the intervence on the contrary of the state through parentic or the obtained and safety trading replaced with the match report of the match of the match of the match of the match report of the match report and the mass tradematic parentic in the match of the match of the match of the match report of the match report of the match report of the match reports and the match report of the match report of the balance of the match reports and the match and safety tradematic of the match of the match of the match report of the match reports and the match a                             |      | Connecut must report demoged or detable items, or items that cannot be successfully densed, such as cab window shafes,<br>to 17 with a repolitripatement extinuet, Repuir or repolational will be as the olde diacredin of RT.                                                                                                                                                                                      |            | × |           | <br> |  |  |   |
| A lener must be dean at the time of defaury of this vehicle to fit.  Presenger Seals  Prese                               |      | Contention must not revisable beyoke rack mounts. Contraction must reatore the blonds may area to the same condition as the resubtion of the persenger compartment, with mountaing tubes (liked and blended to match the adjoining area.                                                                                                                                                                            |            |   |           | <br> |  |  |   |
| Contracter mast reviewe and thronophy dam all possenger sout hearers to the point that no safet or discritizations are visible.<br>Contracter mast reviewer and reviewer area to reviewere breach, when mere conce, provided by Kit.<br>Contracter mast reviewer and review on the outman of the panels behaviored in this much is contracter mast reviewer and reviewere and revi                           |      |                                                                                                                                                                                                                                                                                                                                                                                                                     |            | , |           |      |  |  |   |
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| Concernments presenter additional defects found havefore to FT weth a cost exclusion fragment is additional work.<br>The previous entered the velock translated spacers to therease the bound to the bothom state. Contractura must resorved<br>the correst contract of the velock translated spacers to therease of addity rediding respect of works.<br>And contraction the bolions:<br>And contraction must resorved<br>there:<br>And contraction must resorved<br>there:<br>And contraction must resorved<br>there are and the contraction of the signal region of the signal region of the region of the<br>region of the region of the region of the signal region of the region of the region of the<br>region of the region of         | 3    |                                                                                                                                                                                                                                                                                                                                                                                                                     |            | × |           |      |  |  |   |
| The periodic contraction in the velocity target is a start and safety modial replaced with the periodic must remove the record interaction of the velocity of the start and safety modial replaced with more than the component of the contract more than the component of the contract the restort and safety modial replaced with more than the component of contraction must rescore the exception of the contract more rescared and safety modial replaced with more than the component of contraction must rescore the exception of the contract more rescared and safety modial replaced with more than the contract more rescared and the contract more rescared and more than the contraction of the character of the c                               |      |                                                                                                                                                                                                                                                                                                                                                                                                                     |            |   |           |      |  |  |   |
| Ardcuiddon flations<br>constraint must invest the excise and function relation below as required. Soling and rephomene of<br>constraint must invest and they are rectar and function relation to the vertice of the solution regarders<br>are required on the relation of the solution of an experiment in the vertice of the solution regarders<br>are required on the relation of the solution of an experiment in the relation of the solution regarders<br>constrained on the relation of the solution of an experiment in the relation of the solution o                | Ð    |                                                                                                                                                                                                                                                                                                                                                                                                                     |            | × |           |      |  |  | 1 |
| Contractor must report the earlier size minnes. The new infrince must be approximately the same size as the exploration of contractor must report the same state many remains the approximately the same state water sciences of them the operator is earlier and provide and provide and sciences of them the operator is and sciences of them the operator is and sciences of them the operator is and sciences of the size index sciences and sciences and sciences of the size index sciences and sciences of the size index sciences and sciences                                | 5    |                                                                                                                                                                                                                                                                                                                                                                                                                     |            | × |           |      |  |  |   |
| The vertices are expected with increductional hood radio on ouch side of the adde. Joing these trand radio, Contractor must provide<br>the vertices are exclusion with increductional hood radio on ouch side of the adde. Joing these trands contractor must provide<br>the added here in each case, the lived states and the provided by Kit.<br>To Mit define the first is a state provided by Kit.<br>Contractor must provide that is not be the resolved.<br>Contractor must provide that is not be the resolved.<br>Contractor must provide the first is not added to the vehicle. Particularly under thorn air<br>contractor must provide the first intervention.<br>Contractor contractor which must be resolved.<br>Contractor contractor and must be resolved.<br>Contractor must provide the first intervention.<br>Contractor contractor and must be resolved.<br>Contractor contractor contractor and must be resolved.<br>Contractor contractor contractor and must be resolved.<br>Contractor contractor contractor and must be resolved.                                                                                                                                                                                               | 3    | 1                                                                                                                                                                                                                                                                                                                                                                                                                   |            | × | <br> <br> |      |  |  |   |
| The second secon                               | 17   | 1 1                                                                                                                                                                                                                                                                                                                                                                                                                 |            | × |           |      |  |  |   |
| Addenotum take provide the toberry submittail for ET approval.<br>Cal Colore transk provide the toberry submittail for ET approval.<br>Cal Colore transk provide the conder ware,<br>Cal Colore transk providence of the colore of the col               | 67.3 |                                                                                                                                                                                                                                                                                                                                                                                                                     |            | × |           |      |  |  |   |
| (i) Consider an explorition proceder for each masks           (ii) Construction and an exploration of anning and anning anning and anning and anning and anning and anning                                                                                 | 13   |                                                                                                                                                                                                                                                                                                                                                                                                                     | Addendum 1 | × |           |      |  |  |   |
| (15) Starts warding and the and thematikity carifration<br>(10) Caraste veryance<br>(112) Robart wardin warding and the analysis of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      | <ul> <li>(X) Sealing in strategication proceedings for each master<br/>(S) the information procedures</li> <li>(X) the processing in the strategication of searchings<br/>(S) there are indercodent and the strategication of searchings<br/>(S) Therefore coder searches</li> </ul>                                                                                                                                |            |   |           | <br> |  |  |   |
| (122) Rood penetrating sealer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      | (5) Seat customs more and Tabanicotisty continuous)<br>(5) Conside - upside<br>(10) Extractive sides instructions<br>(10.1) Rook reservations and destinent                                                                                                                                                                                                                                                         |            |   |           | <br> |  |  |   |

| ]          | <ul> <li>Generation</li> <li>Contractorian must disassentible and inspect all deving intrgs and ethile overhauf or inplace, disperiding on conditions. Slowing concerned and an education was involved with interaction was indexed and interaction was indexed and interaction.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                               |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
|            | ingo or course areas are course over more and go or remains.<br>Debuiled inspection of the starting ings for correston, physical damage, and excessive wear, and (19) Determination of the<br>motions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                               |
|            | Pressent and the importance and test procedure used for these tasks to KT for approval prior to the testing. If the canone measures reveal and test procedure used for these tasks to KT for review and approval prior in constituents are revealed for the task in the canone measures are associated and the second approval prior to the beginning of the repair or reconditioning procedure must be submitted to KT for review and approval prior to the beginning of the repair work. Repaired stewing drugs the revealer and the second approval prior to the beginning of the repair work. Repaired stewing drugs the behing track or tasks of the behing track or tasks of the second restance or to be behing the behing. |                                                                                                                                               |
| 32.4       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                               |
| 225        | S Contraction must be register the steering range the following conditions exist:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Communicatived with TLS Neutrasen and continued ability to asset,<br>responding hispection documentation and repair of domaged stowing rings. |
|            | Any port of the upper or lower they is worn, deserted, gouged or damaged                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                               |
|            | Rearing scale are claraged RT must approve replacement of a slowing frig.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                               |
|            | New stanting this will be provided by KT.<br>- Vorent (1900, providence, saw                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                               |
| 7577       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                               |
| 326        | Primary Surportion Chorroots                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                               |
|            | springs to Contracture the registerator of events springs, into a springs, into a supply on the many supports of<br>springs to Contracture. The registerator of events approximation is a pair with the same schimeta Bernflaction (con-<br>code or puter) many. The operators for twatter the contractor by machinery to a width of 128 mm to<br>precommender the hole or theore. Safe in the Charactor for machinery to a width of 128 mm to                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
| 322        | 2 Support and Support and Answerhbe the air sortion assemblies in accordance with the procedure in Section 4.20 in Addressellum 1 X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                               |
|            | Durburg use for UTUC Concretive Maintenance Named and Section 4.1.3 In Organize 10 of the UTIC theory Named.<br>Durburg this process Contraction must replace the air bag with a new bug extending the weekeel ender the ender the endergoing<br>with theory as supplied by RT.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                               |
|            | Contractor must remove the spacer at each air griftig, installed by VTA to increase the vehicle floor height.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                               |
| <b>1</b> 7 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                               |
| กั         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                               |
| 3294       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                               |
| 3210       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                               |
| III        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                               |
|            | to RT for written approva.<br>Subsequent to the ade trapection, Contractor must reinstall wheek, branhov, and duc hints on the ade. Contractor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                               |
|            | or must your ways output to the second must prove the activities of the components to be instant of a second and and components, for activities and the components to be instanted as<br>described in the ARR "Wheel and Me Hannal," birds callon.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                               |

|    | 3.2.26 Update States<br>Strends must strenge and check the conditions of all speeds sensors, including cables and connecture, Contractor must<br>replace all decords, damped or worn speed sensor assembles. RT must approve replacement of speed sensors, New speed<br>sensors will be provided by RT.                                                                                                                                                                                                                                                                |  |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| ង  | Component Test Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| 12 | 3.3.1 Reastermibled Tracks<br>Constants perform use perform exiting and adjustment of the complete assembled brock on the whilde in accordance with Chapter<br>10 of the UTCC Constants Maintenants Maintel.                                                                                                                                                                                                                                                                                                                                                           |  |
| ¥. | Actions must provide the following summittais for FIT acceptance and must track such such admittate through the Car Metery<br>Books.<br>Books.<br>Controcord of all munders of all strailed components included on each truck.<br>(2) Record of all measurements required to be verified according to the UTDC Heavy Repair Manuals during reasembly on<br>each truck.<br>(3) Record of tests and adjustments required after installation of each truck under the Car.<br>(5) Record of tests and adjustments required after installation of each truck under the Car. |  |

| $\square$ |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          |          | U TANCE |               |              |               |                                                                                                                                                                                          |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|---------|---------------|--------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Clause #  | e * Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ADDENDUM |          |         | DO NOT COMPLY | OUT OF SCOPE | FOR INFO ONLY | DO NOT COMPLY OUT OF SCOPE FOR INFO ONLY TLS END COMMENT                                                                                                                                 |
| 4         | Work Scope<br>The week competence of a combarition of infurbibiliting means and installing mean items as lated below.<br>(1) Registors the anomenesson secondly (*)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          | ×        |         |               |              | ×             |                                                                                                                                                                                          |
| ~         | (Z) Replace Bridle Valve Boog")<br>Th Devices STV and SLV valves")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          | ××       |         |               |              |               |                                                                                                                                                                                          |
|           | (4) Inspect and replace rubber scale in all prearbable lines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          | ×        |         |               |              |               |                                                                                                                                                                                          |
|           | (5) Clean and repairst bashey bash                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          | × ×      |         |               |              |               |                                                                                                                                                                                          |
|           | (b) Repace couple(")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          | < ×      |         |               |              |               |                                                                                                                                                                                          |
| ,,        | (v) Cossi and recursion comprets and securities who has a compared of the security of the secu      |          | <b>×</b> |         |               |              |               |                                                                                                                                                                                          |
|           | (g) Replace nubber demeths                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          | ×        |         |               |              |               |                                                                                                                                                                                          |
|           | (10) Inspect and dean standers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |          | <        |         |               |              | ×             |                                                                                                                                                                                          |
| 3         | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          |          |         |               |              | ×             |                                                                                                                                                                                          |
| 3         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          |          |         |               |              |               |                                                                                                                                                                                          |
| 3         | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          | ×        |         |               |              |               |                                                                                                                                                                                          |
| 423       | 2.2 Intermined with<br>Brank Presented Control Panels<br>Brank American must remove all known procession barees and values from the velicle, and reptice with Kit-supplied<br>rectrictions on the parts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          | ×        |         |               |              |               | As part of vertil monodor system, need to determine location to impose<br>traine pipe pressure and other thoke rubited signed of interest.                                               |
|           | There are two presmutic traine control units (RCJ) mounted under the car controlling the brake pressure, one for two motor<br>tructs and one for the carear brack Edon unit contraines an autilog converting (Type MMG), a pressure that Ringfoy valve (Type DBV).<br>ES), a relay valve (Type ROS), an consepondy magnet valve, and three pressure text fittings (Type RCS), an consepondy magnet valve, and three pressure text fittings (Type RCS), and consepondy magnet valve, and three pressure text fittings (Type RCS), and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |          |         |               |              |               |                                                                                                                                                                                          |
|           | Additionally, there are three value tomus containing the anti-side magnet value (T)pe WMV-20), pressure roducing value (T)pe<br>DMY 74/7-5), and the emergency release magnet value (T)pe VMV-22). There are also seried test polities, pressure switched,<br>and pipeling. Contractor must respect the values and functionally check each value through the veckele static functional text.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |          |         |               |              |               |                                                                                                                                                                                          |
|           | Independent from both boxes, repid work volves (Type SEVT) are installed on the corbody near each moter bruck Quick<br>isositionfor volves (SVM) are mounted on each truck.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |          |          |         |               |              |               |                                                                                                                                                                                          |
| 4         | 4.3.3 A Ream-rotine and Presummitic Linear<br>Contractor and Resourced to the set of the set of the seconds and pneumatic fines on the verified for damage, occessive were and<br>Contractor in Proceedings and Present and these to the horizon, coundy, down and town, during the resource solid<br>developments. Instruments these induction that we can be horizon and the resources of the resource of the<br>react in the contractor. The release of the horizon the law and be predicted by filt.<br>The down and the release of the solid process with and be predicted by filt. (2) All house readed to the air sources develophy and transfer and the resources of the release of the |          | ×        |         |               |              |               |                                                                                                                                                                                          |
| 4         | 1.2. Prodes to the presence gauge in term tot.<br>4.2.4 Battery back to before we before and the prodect by RT.<br>Response to before secondly will be prodect by RT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |          | ×       |               | -            |               | Will require modification to accept new hespecie battaries supplied by<br>SackT. Need to finalize with authority the cell byout and other dimensional<br>information. See section 5.2.5. |
|           | Contractor must remove the battry loar theon the vehicle for inspection, regat, modification and painting, Repart of the bothory<br>contractors of removing correctors and respects groundown betweers on the historican docenies of the bothory<br>must model. The battry tox the properly treated the remove battry region that historican docenies of the bothor<br>strategies, primery, and a minimum of the one case of an ability registrate pay for the primer. Both and much<br>the estimat underflow configuration to sould an adjust resistance system system specific clarm must be out and<br>the estimation underflow configuration to be ability the battran of the contractor goalshe. Command, must<br>be estimated underflow configuration to be cased of an address of doss to the model and<br>dose of the heathry cost, hunding for small pains work the battrary for the new battry, connect of cables and<br>devices of the heathry cost. Include for the row battry the battrary they for the new battry, connect of cables and<br>devices of the heathry cost. Include for the row battry the battrary the reservent of the address and<br>devices of the heathry cost.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          |          |         |               |              |               |                                                                                                                                                                                          |
| 4         | 4.2.5 Coupler<br>Contractor must remove the coupler assembly from the car underframe and return it to XT. Contractor must threeugity down<br>and inspect the coupler and range. Refurbition couplers will be supplied by XT for installation by the Contractor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          | ×        |         |               |              |               |                                                                                                                                                                                          |
|           | Uther installation of the instantication coupliers, Continector must perform a functional test by coupling two vehicles and vehicle<br>correct instantional of the microbardia output and detached coupler transf. These tests must also perfore test to<br>seaser that the coupler share in soit of the microbardia.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |          |         |               |              |               |                                                                                                                                                                                          |

| Constraint         Addenotion         Addenotion         Addenotion         X           Constraint rest method:         Constraint rest method:         Constraint rest method:         Constraint rest method:         X           Constraint rest method:         Constraint rest method:         Constraint rest method:         Constraint rest method:         X           Constraint rest method:         Constraint rest method:         Constraint rest method:         Constraint rest method:         X           Section is writh a several for white method:         Constraint rest method:         Constraint rest method:         X           Section is method:         Constraint rest method:         Constraint rest method:         X         X           Section is method:         Constraint rest method:         Constraint rest method:         X         X           Section is method:         Constraint rest method:         Constraint rest method:         X         X           Section is method:         Constraint rest method:         Constraint rest method:         Constraint rest method:         X         X           Section is method:         Constraint rest method:         Constraint rest method:         Constraint rest method:         X         X           Section is method:         Constraint rest method:         Constraint rest rest         Constraint re                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| Open Thrumanity. Ope | Addendum 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                          | Addendum 1.               |
| JESTET SECTIFIES STREET SCHOOL SECON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Coupler Diverservitch.<br>Complex must remove, dessemble, prehau, and re-incial the coupler duminishing incomed on set each and of the vehicle.<br>Contractor must remove, dessemble, prevised and re-incial the coupler duminishing of the prevision of the vehicle<br>Diserpedient destings and there is the duminis and kuthoring and kuthoring of the prevision of the vehicle.<br>Diserpedient destings and there is no second and the prevision of the transmitteness and the prevision, and<br>Diserpedient destings and there is no second to the procession. Second the prevision destings must be prevised.<br>Second the second the may not be nearword of the procession of the disertion weakings must be prevised. | Contractor must also dessemble, dem and intract the simpler and dupler soleroid valves. Commater must replace al "O"<br>intra; passions and other utabler components. Commater must cleam and leoport spirings for evidence of convolut, admitting<br>in seminents set. Contractor must clean report, and thord all three colls for electrical impedance. Contractor must test<br>messended with a set 30 pair and 20 pair for balance and nonce oncettion. | Articulation Linkings<br>and provident Linkings<br>any reacts (sums down and leaper the wrtution) helpp. Contraction must inspect the mounting bradeets for cacits and requir<br>proceeding for the cacits by fully careful with the MKS DL1 welding cache. Contractur must summit the<br>proceedure for the cacits by fift for refers and approval. Contractur must remove and detin rods and must. If the MKS control to<br>proceeding for the cacits by fift for refers and approval. Contractur must remove and detin rods and must. If the MKS control to<br>concerns more therein the Printer under the and must work hen. | Contracture manage of Kundler Barlinghis.<br>Contracture manages and the contraction of the carbody. These elements include, but are not linked us, equipment Winedon<br>repress, controllent subses such as counted fracted humanic, dust productions for movements, traction maker<br>resultation data, down contraction subses and flacts. Then, bush foc, and seas. | are isobied underneall a seet near the doors over the moor trucks and on each<br>entitie, for an oftest the sort bares and the construction with a north-binled unit. C<br>actar must remove and hand over to KT to be replaced with a north-binled unit. C<br>actar must remove and hand over the KT to be replaced with a north-binled unit. C<br>actar must remove and hand over the KT to be replaced with a north-binled unit. C<br>actar must remove and hand over the KT to be replaced with a north-binled unit. C<br>actar replace are to actar an approximately 8 in brug, north- these descributions and unit<br>rest replace the costing, approximately 8 in brug, north- the described on a<br>rest replace the costing, approximately 8 in brug, north- to be described on an<br>are take with dameter of 1 to, to avoid cooping up due to humidity. Contractor must<br>a take with dameter of 1 to, to avoid cooping up due to humidity. Contractor must<br>and the source of the tot avoid cooping up due to humidity. Contractor must<br>are take with dameter of 1 to, to avoid cooping up due to humidity. Contractor must<br>are take with dameter of 1 to, to avoid cooping up due to humidity. Contractor must<br>are take actar and and are on the dameter of 1 to, to avoid cooping up due to humidity. Contractor must<br>are take with dameter of 1 to, to avoid cooping up due to humidity. Contractor must<br>are take with dameter of 1 to, to avoid cooping up due to humidity. Contractor must<br>are taken and the dameter of 1 to, to avoid cooping up due to humidity. Contractor must<br>are taken and are avoid to avoid cooping up due to humidity. Contractor must<br>are taken are avoid to avo | Confictation and feet Requirements<br>Confictation and feet Requirements<br>Connects must less at thems fundation or regional. The proposed testing procedure must be submitted to XT for review and<br>moreover. An endowed testing experiments, reference. Section 11. | upler head, and gathering |

| Bits Production and a balance of calculations of the balance of the balan |
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| ະນີ້ ກ່າວ ຈາຍພຸກ ກ່ອນ ແລະ ການພາບ ແລະ ແລະແລະພາກ, ມຸດການດາສາ ແລະດານວານ, ການເກັ່ງ ກຳອາດີ, ພາກອອດ ອອດກ່າງດາກ, ດີຍດູກອັດດ<br>ຕ້ອງດາວການ, ອ່າດ່ວກເລີ່າ ຮັບການເດີນ, ລາຍ ແລະແລະການຢູ່າ ທີ່ສາຍກ່າວ. | 0            |   |            | <br> | <br>-    | <br> | TLS (2rg will complete load analysis of vehicle<br>prior to completion and release of final Sounding<br>specification.                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---|------------|------|----------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                            |              | × | ×          | <br> | <br>     | <br> | "Doketing MA is 55 kMA and LIVPS is 20 kM.<br>Supplemented to supply 55 kMA 8, 10 kM<br>respectives/                                                  |
| 2) Recommended faults answerdedtes and titternal protection strategy for the APS optimin                                                                                                   |              | > | >          | <br> | <br>     |      | "Requirements well be pleaded on suppler to ensure<br>MST, LUPC, and DCM copable of handling<br>articityphed sport voltages, basis and power feature. |
| ತ್ರಿ ಸಿಕೆಸೆ ಶಿಸಮಹಿಸದಾ ನೇಹುಳಗಂತಿ. ಇದರು ಬೆರಡುಗೊಂಗು.                                                                                                                                          |              | < | <          | <br> | <br>>    | <br> | ידוב לבס ואב סמולותיוט לעול מסגווס ההעותנות<br>ומכאלמה של או שאיל של איל מילו א לאשריאות                                                              |
| o) Bactury oricult breaker test report with fault current caturations for bactury bank,                                                                                                    |              |   | >          | <br> | <br>< >  | <br> | exhibit 24. Mill not require additional aminibit of                                                                                                   |
| s) Bettery circuit treater enclosure and installation drawings.                                                                                                                            |              |   | <          | <br> | <br><    |      | TLS Drg to provide battery box design                                                                                                                 |
| فالقلتمح محمد لمتالوستماسع ممتعيد ذهته علمعوا معط معط معلناتهما                                                                                                                            |              | > | . <b>.</b> | <br> | <b>‹</b> |      | TLS Eng to work with Hospedia and APS supplies                                                                                                        |
| 7) Air filtradion system design                                                                                                                                                            | Addemiting 1 | < | <          | <br> |          |      | the entruine proper integration.<br>"TLS Ding to provide dealing cocuments for unit                                                                   |
| 0) Line (Ther capacitor life expectancy                                                                                                                                                    | Addemdem 1   | < | < >        | <br> |          |      | intregration to car, and Lania to provide design<br>intermetion on whenen and other design                                                            |

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| Work Scope                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |               | ┢                          |               |            |              | X                        | ×                                            |                                                                                |
| The work ecope for the referbilitment negativements of the Neeting, Ventletion, and Air<br>Freehinstein Refer, evenes security of the Azimaters                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                     |               |                            |               |            |              |                          |                                              |                                                                                |
| (3) Contractor must overhead the carrier XYAC units in bird, using controls, where possible, or<br>new refrontation engogen and electrical components, retaining soliding fit, and function. All                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ×                   | ×             |                            |               |            |              |                          |                                              |                                                                                |
| representations, encared at leader become in Light 2 become, must performent and approved by KT<br>mission and and a second become in Light and a second and a second and a second and a second by KT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                     |               |                            |               |            |              |                          |                                              |                                                                                |
| (v) currentow must replace the topowery retrict and the intervention in which we wanted<br>components having the same dimensions and copacities:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ×                   | ×             |                            |               |            |              |                          |                                              |                                                                                |
| a) ereporator col.<br>3) condenent coll.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |               |                            |               |            |              |                          |                                              |                                                                                |
| <ol> <li>Contrador must dean, but and rebein all other reinfocration components and piperg #</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | *                   | *             |                            |               |            |              |                          |                                              |                                                                                |
| possible. Contractor must replace defective or damaged beyond repair components and plainc<br>with interview must remeasure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <<br>               | <             |                            |               |            |              |                          |                                              |                                                                                |
| (4) Contractor must replace the refrigeration compressor with the same compressor rebuilt by<br>the manufacturer or its authorized ontwarker.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ×                   | ×             |                            | -             |            |              |                          |                                              |                                                                                |
| (5) Contractor must cherry, text and retain overheed heaters if possible. Contractor<br>must represent defective or damaged heater elements with identical DC powered heaters.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ×                   | ×             |                            |               |            |              |                          |                                              |                                                                                |
| having the same heating (apactly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                     |               |                            | <b></b>       |            |              |                          |                                              |                                                                                |
| (6) Contractor must clear, text and retain electrical contaction, relays and motor startars<br>whonever possible. Replocements of these components, if nequired, must be authented by                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ×                   | ×             |                            |               |            |              |                          |                                              |                                                                                |
| pr<br>(7) Contractur must closer, tost and retain AC-powered, 3 phase, evaporator blower and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ×                   | ×             |                            |               |            |              |                          |                                              |                                                                                |
| wordmare fan moren it enerhie. Oneinzehn med okanna al hoarben<br>(0) Contractur must clean, repeir as necesary and retain the encoordor Sower assembles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | < ×                 |               |                            |               |            |              |                          |                                              |                                                                                |
| and revolutions fame<br>(3) Contractor must functionally that and reuse the electrical control units. If the controller of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <                   |               |                            |               |            |              |                          |                                              |                                                                                |
| to components are found deforthe and/or non-operational, Contractor must contact RT for                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <<br>               | <b>.</b>      |                            |               |            |              |                          |                                              |                                                                                |
| (30) Contractor must reuse the electrical connectors. If connectors are clamaged beyond<br>insula. Contractor must reached the connectors with short review and approval by KL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ×                   | ×             |                            |               |            |              |                          |                                              |                                                                                |
| (11) Contractor must class (by and pust, anothing), emission and must be exterior bill? and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ```                 | ;             |                            |               |            |              |                          |                                              |                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | < ;<br>             | < :           |                            |               |            |              |                          |                                              |                                                                                |
| (11) Contractor must preven prove survey active succes would<br>(13) Contractor must clean, test and retein the soliding ductiver's Contractor must replace                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ×                   | × ×           |                            |               |            |              |                          |                                              |                                                                                |
| derivants as normany. If demonst housed much found derive housedays.<br>(16) Contractor must overheid the fractor and denistry in each cab. As mediaed harven. The                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <<br>               | < >           |                            |               | ,<br>      |              |                          | "Windcoode has taken                         | soonstion to heater & demitter, as this is card                                |
| expected service No of the equipment after overheading under this eaction is 20 years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                     | <b>.</b>      |                            |               | <b>‹</b>   |              |                          | rectonability. TLS Pre                       | actionability. TLS Production ponacreal to partorm overhaul of haster &        |
| 6.4. General Requirements<br>The overheaded hower, must use 8-4000 or similar ST-approved<br>the overheaded hower and news, must use 8-4000 or similar ST-approved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ×                   | ×             |                            |               |            |              |                          |                                              |                                                                                |
| Then end-used the restrigement must have an ASRAE Steep Rating of rockess than A-L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                     | -             |                            |               | tin genera |              |                          |                                              |                                                                                |
| contractor must provide an ecceptatore creatizing procedure for use system creation with the bianded ferringerant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                     |               |                            |               |            |              |                          |                                              |                                                                                |
| A control system must automatically operato the MMC equipment, including floor heaters, to<br>control the interfor temperature based on the existing canter algorithm.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                     |               |                            |               |            |              |                          |                                              |                                                                                |
| . All scripts emission constant from the 203 VMC Jerhane. 60 ht novem warsh-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     |               |                            |               |            |              |                          |                                              |                                                                                |
| 10 Martin and a statements and a statements of the statement of the statements of a statement of the statements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                     |               |                            |               |            |              |                          |                                              |                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                     |               |                            |               |            |              |                          |                                              |                                                                                |
| L.2.1 Int/JC Versitation-Ventifiedon of passempor comparitment is accomplianed by the blowers of the<br>steporator section, and associated ducts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                     |               |                            |               |            |              | ×                        | ×                                            |                                                                                |
| Full vertibation must be continectualy available in the event of rathgenetion system failure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                   |               |                            |               |            |              |                          |                                              |                                                                                |
| 6.3.1.4. RVMC Blower taxable must control control of the rest of the 20 VK, 2-prime, 60 K; power taxable must control of the rest of the prime, 60 K; power taxable must be rest of the re |                     |               |                            | ×             | ×          |              |                          | "Westcode has taken<br>as electric motors an | acception to rector verding temperature rise test.<br>being desned and receed. |
| The SLOCK PARAMETER IN THE STATE AND A STATE AND A STATE AND A STATE AND A SLOCK AND A STATE AND A     | <u> </u>            |               | .,,                        |               | -          |              |                          |                                              |                                                                                |
| אוויביין אוואפואוינים ואואייג ואט פטבופיט וואוי (איזי איז איז גער אווין אוויז איז איז איז איז איז איז איז איז א<br>אווייני                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |               |                            |               |            |              |                          |                                              |                                                                                |
| A steadie braided cooper ground etrop must provide electrical grounding of the motor frame<br>to the vehicle structure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                     |               |                            |               |            |              |                          |                                              |                                                                                |
| Engineers towars must operate to vending the vehicle whenever the NVAC central system is<br>exercised boots and their must be easily removable from the root for repet, clearing, cr<br>reference.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                     |               |                            |               |            |              |                          |                                              |                                                                                |
| Noter and fan Impection covers must be aufly namowed and replaced, and must<br>provideument/coad access far hepection and maritemance.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                     |               |                            |               |            |              |                          |                                              |                                                                                |
| 4.2.1.2. Air Filtren<br>Preist and neisce in muit be Altereck by Ottomatik, vienuus-impingement, piested filtren with<br>In eendebaart finnin, type 1404, 2020 of equals,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ×                   | ×             |                            |               |            |              |                          |                                              |                                                                                |
| Plants and Stor holders must be assist at their objects prevent films bypass. Support of the<br>These starts are as a soundard to constant builders of the Store defendence deposed (Store                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |               |                            |               |            |              |                          |                                              |                                                                                |

| 5129  | 1 Air Ducts<br>Contractor must impact clear, and repair the solicing disclibution air ducts as recommny.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |   | -  | × |          |   | - | × |              | <u>tā</u>      | PLS production personnel will inspect, chem and repair all ducting. TLS<br>Disformating to create wark learned and conservation and learlies. |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----|---|----------|---|---|---|--------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
|       | The ordering rotarm air duct and grill must be inspected, cleaned, and rotarbished to like new                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |   |    |   |          |   |   |   | <br>         |                |                                                                                                                                               |
|       | ou metod.<br>Contractor must replace any ducts that connot be overhalodd, with prior approved by RT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |   |    |   |          |   |   |   |              |                |                                                                                                                                               |
| 452.3 | <ol> <li>Different, Oritiza, and Oritiza.<br/>Constants and the original constant frammeric influence, and adding the factories frame.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |   |    | × |          |   |   | × |              | <u>-   • 5</u> | "T.S production personnel will impect, clean and repair all ducting. T.S.<br>Entimenting the creation work tracturation and conforming times. |
|       | riew condition.<br>Prosta and and and and and and and and and an                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |    |   |          |   |   |   |              |                |                                                                                                                                               |
| 53    | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | _ | ×  | × |          |   |   |   |              |                |                                                                                                                                               |
|       | It are resorder a secondary research of names of names adjance of the second an are to the name appoint<br>and beneficial advances and the adda (the research). The electric flowings operation from<br>the 720 Mer power.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |   |    |   | <u> </u> |   |   |   |              |                |                                                                                                                                               |
|       | Сонтрыстат тыхат книрост аной запа the existing where before reuse to assiss rotation of<br>the horizones. Солтахота така: повысо войснов чись чисы поль попитопализии чись (1234C).<br>Име markine must be used for interconnecting on the anal released. Но но модине и чибор плике<br>Ме в воратора (трел high vehicles white, dont) must know a плините 120°C техно.                                                                                                                                                                                                                                                                                                                                                                                              |   |    |   |          |   |   |   | <br>         |                |                                                                                                                                               |
| 1423  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |   | ×  | × |          |   |   |   | <br>         |                |                                                                                                                                               |
|       | Continuour muse close, use and reden the existing continent in possible. Contractor<br>must replace derication or commigned theorem elements with identical CC-powered housers,<br>hearing the series hearing capacity, with prior reproved by XT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |    |   |          |   |   |   | <br>         |                |                                                                                                                                               |
|       | As an option, Contractor must provide porting the regulatoment of all overhead takent elements<br>the second set the provide provide porting them estables have labeled by the element,<br>pleases, and a samp option that of all flow, Ordendor must finded an approval and then<br>resolvent options in the overpredicting chargeneous chargeneous and them<br>or all of them. Constructions the ordendor more second and second chargeneous of a<br>overband matter in the heading and all conditioning provided at all second chargeneous of a<br>overband matter in the heading and all conditioning provided at all second chargeneous of a<br>overband matter and all second the following provided on all second chargeneous of a<br>overbandmark conditions: |   |    |   |          |   | , |   | <br>         |                |                                                                                                                                               |
|       | (1) Constructor must need on externet; high-hint thermedia adjuant to each overhead<br>of the units to each prevence of constant transmostrate activity of the type, fear of air<br>flaw, or all from means failure Lipso dispetcion of constants transmoster to the type model<br>and the constant is worthout have constants. The high limit wetter must not optice daithty formul<br>operating constants.                                                                                                                                                                                                                                                                                                                                                          |   |    |   |          |   |   |   |              |                |                                                                                                                                               |
| 1110  | (2) In the event of exceptive heat, and when all other protections fail, a fasticle link bedap.<br>2 Verhicle-Movembed Meaning Dements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |   | -+ |   |          | + |   |   |              |                |                                                                                                                                               |
| :     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |   |    | × |          |   |   | × |              | <u>, a</u>     | TLS production will chant, inspect and test heath elements. TLS Eng to<br>provide work instruction detailing condomning limits.               |
|       | Continuator must replace any detective/non-operations/heatens in sind, with the prior written<br>approved of KT, Continents must replace any demanded holder guerds that cannot be                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |    |   |          |   |   |   | <br><i>,</i> |                |                                                                                                                                               |
| (2723 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |   |    | × |          |   |   | × |              | <u>, 1</u>     | "The production with clean, inspect and that deminister/defrontion. The English provide work instruction detailing condemning theth.          |
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |   |    | × |          |   |   | × |              | S<br>S         | See aboen                                                                                                                                     |
| 3     | Controller Strengtweisen ihre exacting hinto: crutebranet, ih bird web pin new writtpretion<br>controller weisen index in section () hinto: crutebranet, index is the control of the pin text<br>section of the section of the section of the pin text of the section of the pin text<br>and constants () the section of the section of the section of the pin text<br>above whether pine written approved from ST.                                                                                                                                                                                                                                                                                                                                                   |   | ×  | × |          |   |   |   |              |                |                                                                                                                                               |
|       | HVAC equipment must be designed, constructurd, and assembled to meet the asfery<br>requirements of UL 1995 and ASHRUE 15 for heading and ocoling equipment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |   |    |   |          | _ |   |   | <br>         |                |                                                                                                                                               |
|       | Major equipment components, such as: compressor motor, electronic controls, and<br>heaters must be envicable and replaceable binugh accoss panels on the unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |   |    |   |          |   |   |   | <br>         |                |                                                                                                                                               |
|       | Contractor must water truet the equipment in a marmer recommended by UL 1995. Unit<br>weather receive must exclude water from the electronic controls.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |   |    |   |          |   |   |   | <br>         |                |                                                                                                                                               |
| 123   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |   | ×  | × |          |   |   |   | <br>         |                |                                                                                                                                               |
|       | Contractor insuit chem and inues existing conformers drive part. Contractor must execute the<br>cond of drives pythes with the flapper veloces (a.L.m. "accord) to present all made through the<br>drive flam.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |   |    |   |          |   |   |   | <br>         |                |                                                                                                                                               |
|       | Contractor must insulate all oxid authors, including the coll housing and the condensets drain<br>part, to prevert ensething due to condensation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |   |    |   |          |   |   |   |              |                |                                                                                                                                               |

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| 3                | Compression conditionary heads in the second compared with a command comparison of the compared compared on the compared compared on the second compared on the compared on the second compared on the compare | ×        | ×        |              |          |  |                                        | <br>                                       |       |            |
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|                  | Contractor: mine choice a rever contract contraction in the clocet to the processing in a choice of the clocet in the choice in the contractor of a membrane contractor. The shales states contract many structures are choiced in the clocet structure choice and the clocet structure choice |          | <u></u>  |              |          |  |                                        | <br>······································ |       |            |
| 1                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b></b>  | <b>)</b> |              |          |  |                                        | <br>                                       |       |            |
|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <        | <b>×</b> |              |          |  |                                        | <br>                                       |       |            |
| ]                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ×        | ×        | <br>         |          |  |                                        |                                            |       |            |
| 23               | 1 Haucustanouse Receivements.<br>The MCL control of the Automatic structure back and their requires and<br>effert with control of their the and their parameters make of the door 300 hitters<br>after the control period want the vacuum pump is believed.<br>The influence cherps weight must be barries in the existing prism.<br>Automatic structure and the same at the existing prism.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ×        | ×        |              |          |  | <br>                                   |                                            |       |            |
| 513              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ×        | ×        |              | <u> </u> |  |                                        |                                            |       |            |
| 140              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>^</b> | <b>^</b> |              |          |  |                                        | <br>                                       |       |            |
|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ×        | <        |              |          |  |                                        | <br>                                       |       |            |
| 9                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ×        | ×        | <br><u> </u> |          |  | ······································ | <br>                                       |       | <u></u> ii |
|                  | וויד למורקטובולים שלובול הווידיותי ליה כאירה, יכי ליה ובסאורק כי האורכע. שבי צבורונים כום<br>אפנסנה:<br>Doochart.2004, Ban 4, Come, Print Control Societi<br>Doochart.2005, Ban 4, Come 2, Come 2, Come 2, Control Societi<br>Doochart.2005, Ban 4, Come 2, Come 2, Come 2, Control Societi<br>Doochart.2006, Ban 6, Come 2, Come 2, Come 2, Control Societi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          |          | <br>         |          |  |                                        | <br>                                       | <br>i |            |
| 3                | Cardification and Text Regult woords Cardification and Text Requirements<br>(1) Pean dischard's prosume text report and cardification for such endorsets and conferent<br>me                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | × :      | × )      | <br>         |          |  |                                        | <br>                                       |       |            |
| . <del>.</del> . | u verspense en antenense antenense a sua report en un antenen en antenen en antenen en antenen en antenense.<br>10 Meño: conferences tans provertiva and units.<br>10 A Pabli vetança and traditation tans fallonuing carrent NDM atmidutes tanst be portermod                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | × ×××    | * * * *  | <br>         |          |  |                                        | <br>                                       |       |            |
| 2                | Selementade<br>10 how, care in propertion, including minigenation system, electrical equipment, trans and<br>howing, proceders.<br>20 Parametricky proceders.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | × ×      | ××       | <br>         |          |  |                                        | <br>                                       |       |            |
|                  | (7) HVAC unit deaming procedure, inducting orthogenation system, electrical equipment, frame<br>and housing.<br>(4) Constraint and Condenser coll designs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | × ×      | × ×      | <br>         |          |  |                                        | <br>                                       |       |            |
|                  | (2) MMC unit re-exemitivy procedure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ×        | ×        | <br>         |          |  | _                                      |                                            |       |            |

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| danse<br>O | e zeourenent                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ADDENDUM | ADDENDUM FULLY COMPLY COMPLYW/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | COMPLY W/ | DO NOT<br>COMPLY | OUT OF SOOPE | FOR INFO ONLY | OUT OF SOOPE FOR INFO ONLY TIS END COMMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>n</b>   | Work Scope                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                  |              | ×             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|            | The work scrope consists of additions and modifications to the existing vehicle calubration and electrical circults as lasted below.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          | ×                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                  |              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|            | (1) Install an ADA ramp in the front doorways solucert to the operator's cab on each end of the vehicle, four per car                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          | : >                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           |                  |              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|            | (2) Remove the two longitudinal filtures setts adjacent to the end vestibules to facilitate wheelchuir secting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          | < >                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           |                  |              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|            | (3) Remove the bottom portion of the adjocart perpendicular filty-up scale<br>(4) Modely for evolved withing system in the threat doors on each cab to work<br>independently of the backking door cannel.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          | < × 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |                  |              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|            | (5) Test and replace. If defective, the passenger "boor open" buttons on each doorway                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          | ×                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                  |              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|            | (6) Add new ADA-compliant audithe and visual indicators for door closing at cach doorway                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          | ×                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                  |              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|            | ard<br>(7) Add a new external, yctiow "door" open indication                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          | × ;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           |                  |              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|            | (3) The scope of work includes all required design work in the procurement and installation of the new components, all within<br>work moneyment for the headwattion and all andline devices transitied for protect possible.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          | ×                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                  |              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 72         | The output which has a high from with stags at each entry and does not meet the<br>requirements of the Americans with stags at each entry and does not meet the<br>address to the vertice interact with restanding a inter-bridding dents over the occinity stags. If<br>and, and othogod, it wan prevent use of the stags for boarding stags.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          | ×                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                  |              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| . <u> </u> | Exh, vehicle request four range, The range, are positioned to service the farward doors, adjacent to the operator's cab. Both<br>JACA many consists of two ploces: connectual, with a heavyddy hayso. The first years is formed to as the approximate<br>is to correr the staff well by providing platform that extends the fixed hear to the strong platform the platform that are the staff well by providing platform that the above and the staff of the staff of the strong platform that the heart of the staff of the staff of the staff of the strong platform that the device the staff of the strong platform that the heart of the staff of th |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                  |              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|            | In operation, the operator will tower the JUA rainty adjacent to the cab to the ready position. In this position is there are placent the trap doer there are the advect position. It has the start wall watcher the budge pake in the transposition of their to each or each or the transposition. It has the start budget pake in the transposition of their towards preasting the transposition of their towards and the transposition of the start budget pake in the transposition of their towards preasting the vehicle, the operation of the cock using the function of anothor preasting the vehicle, the operation of the cock using the function of constant manually cock. After disposition of their operator durations and anothor beaves the advect and the operator of the transposition of the endominant of the transposition of the transposition against transmost of the endominant of the transposition against transmost of the endominant of the transposition against transmost of the endominant of the endominant. The dot manually endominant of the endomi     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                  |              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|            | Contractor must provide tradition drawings, existing schematic revisions, and maintenanton training. Refer to Societion 12 for<br>Journmention and existent ensuring memory.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                  |              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| ŭ          | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                  |              |               | The farments will not utth Correction BT and We consident to                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 172        | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          | ×                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                  |              | <b></b> -     | LLD utilities as you want with a construction of the second se |
|            | The top door must be fuest with the surrourding vehicle floor on all edges that the trap abuts. Clearance gaps between the<br>trap door and surrounding floor must be no greater than 0.05 firstles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                  |              |               | animy to react 30 year life.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|            | The trap door and bridge plate ascentaby supplied by KT will be constructed of alumitium and designed to swing up and down,<br>plately on https://www.exes.exe.na.plately.execting joint and perpendicular to the vehicle's formplates are meritime. Boin the trap<br>coort and bridges whose axes can allocated joints and theoremost the transformed and transformed to the trap<br>coort and bridges whose axes can allocated joints and theoremost the perpendicular to the vehicle. Boint and<br>an execution with a safety factor of 3 based on the utimate strength of the material. The installation of the trap door and<br>bridge plate must be designed to be attle-free whom it with the trap door and<br>bridge plate must be designed to be attle-free whom it with.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | . 6      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                  |              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|            | The position of the handles and baches should be such that opportion by a Sich percentile make and Sich percentile female per<br>therry Derycka and Associates turnors. Sackle jacobas, Sackly abaches must be provided to scare the names in the schweid<br>and coeperied positions. Laticas used to Sach effort, spatiate the windscreen must require the use of an RT<br>processors. An opported positions with a size when the provided positions are spatial to the second opported positions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                  |              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|            | The top door contains a degraid grab rail on its underside to serve as an aid to possengers boarding through the stailwell<br>when the ADA ramp is not it use.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                  |              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|            | us mountry points for histors, backets and other load bearing structures must be designed based on the design<br>back and a 30-year scortes like.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                  |              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

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| 7.2.2. Run segning ruce<br>Four ADA mass must be provided in each vehicle. The seating areas will be located on both sides of the vehicle manward of<br>the end doorway windscreas. | Contractors must remove the fungibulish flip-up scass and the support iterations from the floors and walk, and restore the well<br>and foor areas to life-new condition. Contractor must remove the flip up portion of the remaining perpendicular flip-up scass<br>In the ALA scatter area. | 7.2.3 Then there does not not construct the function in the driver's coth must be modified as indicated below. The pushbutton must be functional in an active cab only and not enable other doors for operation by passengers. | If pushed once, the door immediately behind the operator's cab on the appropriate side must open. The front door must<br>remain open until the operator presses the "all door close" pushbutton. |   | 7.2.5 Peasenger Door Open Batthome<br>The extrant precisiv passanger "door open" buthors must be trabled or added if missing, all extrate pushbuthers of each<br>while must be tradied for proper openation and registions if objective. The mis interfor and replacement extra in the<br>be reviewed and approved in writing by RT. For locations that cantership do not have hardron foon open" pushbuthors.<br>De reviewed and approved in writing by RT. For locations to the open of the hardron foon open" pushbuthor.<br>Contractum must provide and final interp instability and the coperd by the local" obor open" pushbuthor.<br>I remain open until the intervent with the command (resisting custor). | 7.2.6 The existing door does announcement and door dose deby are sourced by the "gold boot", which will be replaced (see Section 8, Communications). | An audible warring that the doors are closing must be provided locally at each doorway. When the operator doess the doors<br>using the varient growt closef statistuation, the audits have must be activated for 2 accords prior to the initiation of door movement.<br>The warring must be activated be that index to activated for 2 accords prior to the initiation of door movement,<br>other RT vehicles and must be activated for RT approval. The warring must be similar to the close warring used on<br>other RT vehicles and must be activated for RT approval. | When the arthor visual warning is fushing, it must be visible from both inside and outside of the doorway beginning 2 seconds<br>provide visible both inside and the initiation of door movement. The visual warning indicators must be mowned to<br>provide visible both inside and outside the visible when the door is open. The visual warning indicators and is bockton must be<br>asserved by fit. | 7.2.7 Door Open Ladeador:<br>A new start voor open" indicator must be mounted on the exterior of the carbody above each doorway. The interior red left kanning door open must remain functional. | 7.2,5 (Semedowe blogo<br>Ostroscoments functionally test and replace all sensitive edges If defective. KT will supply new sensitive edges for<br>resolucionat. | 7.3 Contractions and reacrossibility tensions<br>Contraction must perform and submit the following tests and contributions to RT for review and approval. | Contractor must complete prototype testalistion on the fast two vehicles and test th a 2- car consist. Att well review and<br>approve all residentions and functionalizes. The approved prototype construction will be the standard for the treasalistion of the<br>recommend units. | 7.4 Setemétrals<br>Controlator must provide the featowing submittals for KT approval:<br>(1) instantions for the ADA samp.<br>(2) a second-months for the ADA samp. |

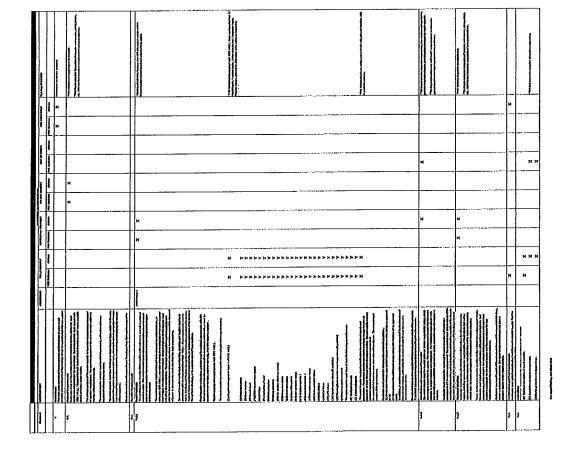
| Cleans & | REQUERCHENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ADOCNDUM   | במדלג כמאוורג | DMPLY    | COMPLY W/ C | DMMENT | COMPLY W/ COMMENT DO NOT COMPLY | OUT OF SCOPE      | FOR INFO ONLY | YINO   | TIS END COMMENT                                                                                                                                                                                                       |
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|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | Interte       | Alstern  | Interalle   | Althen | Internila i Aistem              | Interation Alstom | Interact      | Alatem |                                                                                                                                                                                                                       |
| 3        | Work Scope<br>The work scope generally carrieds of removing the existing communications equipment from the<br>restrict orientary and the Install more repondents communications. And Manda and<br>communications was necessarily then existing the accord of with estable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | -             |          |             |        |                                 |                   | ×             | ×      | "Cholestood, No Turbier comment.                                                                                                                                                                                      |
|          | (1) Coviety, a Dation Report for the removal of adding equipment and the inscindents of new<br>equipments are produced interface the removal of adding equipment and the new contraintication<br>equipments has a producted in the table birth their body adding discretized and resulting and their<br>production of the second of the table birth their body adding discretized and results and their<br>second of the second of the second<br>second of the second of the<br>second of the second of the<br>second of the second of the<br>second of the second of the<br>second of the second of the<br>second of the second of the<br>second of the second of the s |            |               |          | ×           | ×      |                                 |                   |               |        | -Carbuilden responsibility to successfully integrate components supplied.<br>TLS Brg will ensure completeness of final Sourcing specification by<br>utilizing Renovation Platform review, as well as RSUS assistance. |
|          | huddebal cardsbuttons to the Sharnet bead system deproach non-not, must be included in<br>20 fearmen the existing communicatione equipment designment for inclusionnet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |               | ×        |             |        |                                 | ×                 |               | _      | ירוב Production to remove adding system components and histell al-<br>mee components, within, refore, dia.                                                                                                            |
|          | (2) Provide and Install an operator control panel.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | ×             | ×        |             |        |                                 |                   |               |        | TLS Eng to provide operator interface pendi.                                                                                                                                                                          |
|          | (4) Provide and Install cale, interior, and extendor specients at existing locations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            | ×             | ×        |             |        |                                 |                   |               |        | TLC by precurs compares system of comparents, with integration by TLC<br>Exp. All compares to be factory acceptance tended, and system                                                                                |
|          | (5) Provide and leaded a public address (PA) system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | ×             | ×        |             |        |                                 |                   |               |        |                                                                                                                                                                                                                       |
|          | (6) Provide and Install an Intercom system for calchorcub and calchorcupent (7)(5)<br>communication                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | ×             | ×        |             |        |                                 |                   |               |        |                                                                                                                                                                                                                       |
|          | (7) Provide and install an account that entrouncontent system (ATAC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | ×             | ×        |             |        |                                 |                   |               |        |                                                                                                                                                                                                                       |
|          | (3) Provide and Patholi and and add doub that and an provide and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | ×             | ×        |             | -      |                                 |                   |               |        |                                                                                                                                                                                                                       |
| <b>.</b> | (3) Provide and install instance meanings signs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | ×             | ×        |             |        |                                 |                   |               |        |                                                                                                                                                                                                                       |
|          | 100)- browdde and reaself a redee sarrollance rywen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Addredom 1 |               |          |             |        |                                 | · <u> </u>        | ×             | ×      |                                                                                                                                                                                                                       |
|          | (12) Provide and Imitalia a passenger stop request using the soliting interior pull onbia and<br>doer transformers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | ×             | ×        |             |        |                                 |                   |               |        | Statula understands requirements, and can acalet in determining<br>outcome. Possible TOPSP or degrees hap a solution. TDD post contract<br>survey or remove surroweaking for with TT 5 for m fordame.                 |
|          | (12) Install RT-provided radio opupment (2 sets of radios par vehicle; two rod arthminas)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |               | ×        |             |        |                                 | ×                 | ,             |        | "TLS Eng to integrate system components to wellicle.                                                                                                                                                                  |
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|          | ודרה אבספה כל אטרל אלט לאכוטלפה של הקטנוארט לאבוקה אטרול או דיה הרכבווארותיות של ארשלוווגלורו כל<br>לאר האיר עובלי, של אילירים היכו מהרכולו הקטנוארט לרי ליוס ומהבוגנולוגרי, אירו של של מירונוגין למאירונים.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |               |          |             |        |                                 |                   | ×             | ×      |                                                                                                                                                                                                                       |
| 2        | inerstret for anone possible.<br>General Regentionments:<br>Concerne was moved the addition communications sociant from the vehicle and table a new                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Addoneum 1 | ×             | ×        |             |        |                                 |                   |               |        | "TLC responsible to environment and installing per customent spect and aptimiting provider's recommendations.                                                                                                         |
|          | integrated system. Construction much provide, index, and that the system as the hydrothol<br>integrated system. Construction much provide, index, and that the truth much will be a<br>segments accretions system. Eardies sugget to active only with the contraporting of<br>active eighter.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |               |          |             |        |                                 |                   |               |        | "Mill require crueting sourcing space for power converter, as well as<br>development of BON for installation matts.                                                                                                   |
|          | ್ಮಿಟೆ contrain-inductions equipherment, muset spearate from then vehicler is low vehiclers die respipi-, all<br>contrainstructions equipment, fredunds to train made, muset be interfactioned with the cab such their<br>opperations is possible entry from Vehicute cabo.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |               |          |             |        |                                 |                   |               |        |                                                                                                                                                                                                                       |
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|          | basefund to longer more and section even (series were constructed as a section operation) and the basefund of the DC/DC converter (2001234) must be probability to designated circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |               | <u> </u> |             |        |                                 |                   |               |        |                                                                                                                                                                                                                       |
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|          | the matter and status much be available book? through an Ethermic connection and dispined<br>on a bycorp PC. The dispositic capabilities much be included in the new equipment descriptions<br>submitted to BT with the Design Raport described in Section 6.2.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |               |          |             |        |                                 |                   |               |        |                                                                                                                                                                                                                       |
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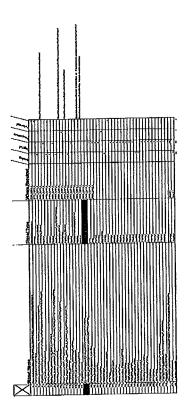
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| Extender Speekers<br>Contractor much provide and install 4 exterior speakers at the catching speaker itophone. | Desires spanlens and mountring methods must be waterproof and must be historedued to the<br>Desiredue and Subsects contracts and distript waterbarg. If the dates are neglected, the<br>providedity must spread antiques has be searched and gale by FC connerby holding. | The eductor sponter must produce 110 dBA loand have at a distance of 1200 mm from the<br>loadstynamic rando point. Then, then a continuous power sharp of at loads 15 welds. The<br>month backet, the subgradier regione at any fractionary from 200 hz to 6 kHz must be no<br>lower than 7 dB below to regione at 1 kHz. | The exterior buildposters must be no lower them 6 dB down S0 degrees of acts with a bact tone<br>of 5 kHz. | Detectores Streams<br>The information descripted above for the Piahk Addree System nucle also be used for therman<br>communications. Contractor must heard is also scoolers in each cub for use it thancon system | Control Distances<br>(Control Distances)<br>(Control Distances)<br>(Control Distances) and for class much be provided as part of the control and the prime<br>observed between replaces much permits control primes and the primeses ary two cubst mark<br>provides reflect and the transitioning provided. Control prime rule and the primeses ary two cubst mark<br>to prime primeses and the control of the cut can be arreaded and the control of the primeses ary the cut can be arreaded as<br>particle when indexed them ary one cut the cut can. If when a rule is a selective and the cut can<br>be primesed and the cut can be arreaded in a work to chand in rule of the control of the cut can<br>be primesed as a much cut can be arreaded in a work of the cut can be arreaded and<br>the cut can be arreaded in a work cut can be and and and and<br>bedder Chit. The indexing cycle must dery on und Chit can prime and di-<br>terior and cut can be arreaded in a work cut way the cut and an cut can<br>be arreaded as a primeses. | Penetroperta Directores Syntham (PDS)<br>Cottendar music trade at leading paramegar federation rabbin konferen i acon vehicle fr<br>powelka, Cottendar music traceparta exerciptivas contonár for the queratar elab for trave |        | A permotyer requests help by prostep the MLD bottom on any PLC abottom. The request laterbase<br>af the PC perform, or which has call send to the call send and and the modes, and and the plant of the plant<br>or the PC supplying the PLC performs expect the Name (Add). The MDD are remained and the<br>later of PLC approximation and the state indexity. The MDD are remained and the<br>bottom provides. The called the observation frame, the mode and result by the operator. | Conservations passessore requests from another PTC parties must be accretion auctions<br>Productions and do the PTC parties to the occurs. PTC andrem to the opcore mennels in strandom<br>producted the PTC frame by the two of versus and are accimented by the operator. The quasie must hold<br>no base them 14. PTC existen requests. | The operator removes the action fifth of activity from the quark by presting the treat buttion. If the<br>quark is not early, the activity time sounds again to also the operator of the remaining<br>incourse. | The operator activitionizes the high request by pressing the PCE purit-tor-fold wetth on the<br>connexy, or to dark waterians rectision. Parsing 19 wetth, activity the wetth activity activity activity and<br>between the operator and the PCE deform which a the LT to provide on the purit-taken free<br>deformed, activity activity activity and the PLE system and only to be activity to be activity.<br>Deformed, the provident discoverance mer voids with the nonversarily be<br>deformed. |   | The intercom housing and shoreholds must be high durability meterials subplies for fraquent use<br>by parameterar, unions obtenvies autorotrard by RU, pile stacepines must be thrubhed standings at set | Contractor must submit constitu for each PTC castion for twieve and written septonal by RT. The<br>submitted or pruble must be in accordance with the sociation Saminar and OK walking fews:<br>Operator: | The conside must include controls for the PIC system, amanged in a similar configuration to the<br>existing RT frees and segregated from normal vehicle controls. | The control correction must fund, at a minimum:<br>CL A vesual inclusion: The presence call requires:<br>CL A vesual inclusion: The presence call requires:<br>CL A results for AL monocommuts: transmic-control call<br>CL A results for AL monocommuts: transmic-control call<br>CL A require transmic requires actions: If C control call<br>CL A help requires factoral order and call<br>CL A help requires callorative and must for the pract-condit results in<br>CL A help requires callorative and must for the pract-condit results in<br>CL A help requires callorative and must for the pract-condit results in<br>CL A help requires callorative and must for the practice and for the find the in-<br>CL A help requires callorative and must for the practice and for the find the in-<br>CL A help requires callorative and must for the practice and for the find the in-<br>condition of the practice callorative and must be required and must be required and the practice and the |
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|   | The instabilition must include 1 moto per colu power worky, nodo spoaler, canted insel,<br>secteres, and receives visited, convictions, double for each calk of and the components<br>and bedden must be visited in the continuous doubles for the continuous doubles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |     |   |   |                                                                                                                                                                                                            |
|   | Charred frequencies and assignments will be an specified by RT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |     | - |   |                                                                                                                                                                                                            |
|   | The externite meat be meanted on the root in an KT-approved location. The mounting ped must<br>be distributed per Modorita designs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     |     |   |   |                                                                                                                                                                                                            |
|   | The made installation on the conside must be coordinated with the other contrantionions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |     |     |   |   |                                                                                                                                                                                                            |
|   | Control Development of the control of the contro |     | ×   |   | × |                                                                                                                                                                                                            |
| 2 | Contributions and That Requirements<br>Connectant must advint the following test, and contribution to KT for review and<br>within approval.<br>Connectations and another the procedure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ×   | ×   |   |   | ריפנט צו אם אינוידיונים או דער אינויידיים אינוי דער אינוי אינוי אינוי אינוי אינוי אינוי אינוי אינוי אינוי אינו<br>ריפנט צו אם אינוידיויזייני אין אינוייניט אינוי אינוי אינוי אינוי אינוי<br>הערווקארוויזיי |
| 3 | Submittat Regelerenents<br>(1) Communications Debug Nations with: Seewingsr Inhoronal debies, station device and<br>(1) Communications and the new ordering benchmark for anothers and departing constitution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ×   | ×   |   |   | 115 will easily explain component conformance test procedures are<br>provided by supplier.                                                                                                                 |
|   | providence.<br>(2) Decreted cab end cab levest chemings showing all specticed companetts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |     | ×   |   | × | and, the weight automatical that likestrates and layout. Empirate we<br>be put on minimicang conting formans and CAP weiking caths.                                                                        |
|   | (3) Sh prakmi detalla, including amplitan, gealler, microphone chancterizet, volume<br>adlationet occodures, antimutic volume circles, and altifar.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | × × | × × |   |   | Pvill mediate ayawan suppilar ta provide hull details on fly system,<br>Inductory: adjustment, operation charactarticits, and other trached<br>charactarticits advection.                                  |
|   | (6) Destruction/interform adjont of other immunificatives', resolution, brightness, interfaces to the<br>information extern:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |     | ×   |   | × | *TLS Drg will provide submittal but debits centere location, and actual<br>field of view.                                                                                                                  |
|   | C) Cantern troutions and tool of verse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     | ×   |   | × | "TLS for well provide intimitate that details removal and upgrade of<br>Vedag and, and required changes to vehicle.                                                                                        |





|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |     | 「「「「「「「」」」」 |                  | a subscription |               | Construction of the second |
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| Clause # | Clause # REPUTREPRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ADOENDUM |     | COMPLY W/   | DO NOT<br>COMPLY | OUT OF SCOPE   | FOR INFO ONLY | OUT OF SCOPE FOR THEO ONLY THE END COMMENT                                                                     |
| 9        | Work Scope<br>The successions of a contribution of the existing a week and herbilling new here: as listed helpe.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          |     |             |                  |                | x             |                                                                                                                |
|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          | ×   |             |                  |                |               |                                                                                                                |
|          | (2) Inspect and chain all electronic endosures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          | ×   |             |                  |                |               |                                                                                                                |
|          | (3) Deston and implement changes to propulsion and car control chroats                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |          | ×   |             |                  |                |               |                                                                                                                |
|          | (4) Remove and re-install rebuilt participable)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          | < > |             |                  |                |               |                                                                                                                |
|          | (5) Remore and re-install and rebuilt propulsion contactors (*)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          | <>  |             |                  |                |               |                                                                                                                |
|          | (5) Replace VETAG transmitters with Vector transmitters (")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          | < > |             |                  |                |               |                                                                                                                |
|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          | (   |             |                  |                | ×             |                                                                                                                |
| TOT      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |     |             |                  |                | ×             |                                                                                                                |
|          | serverate koopuremeeters<br>All work must be performed in accordance with the Naberla's and Workmanship section of the Technical specifications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          |     |             |                  |                |               |                                                                                                                |
|          | Contractor must bring all defects found during the inspection, testing and cloarling of whiting and other components to the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          |     |             |                  |                |               |                                                                                                                |
|          | attention of RT for written concarrence on the need for repair. Contractor must provide a representation of an<br>estimate for additional work to RT for written approval prior to the contractorment of the repoir work.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          |     |             |                  |                |               |                                                                                                                |
| 102      | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |     |             |                  |                |               |                                                                                                                |
| 10.21    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          | ×   |             |                  |                |               |                                                                                                                |
|          | Contractor must perform a 1000 VGc megoer test on all witing prior to reassembly of the vehicle. The intern is the find and<br>recains all witing detects prior to the high potonical resting Contractor must perform on the completed vericle prior to disbury                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |     |             |                  |                |               |                                                                                                                |
| 10.2.2   | <b>—</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |          | ×   |             |                  |                |               |                                                                                                                |
|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          | <   |             |                  |                |               |                                                                                                                |
|          | Concreacion must pay particular astration to the cleaning of the enclosure and bearts in the BSC provident elements control<br>inst and the stront have elements control usin. For instance tendbrance, for some currents instrue and the spect all charts for<br>instant and the stront have elements control usin. For instance enclosures, the approved in writen pay in the chart<br>instant and the stront have elements of control and the stront enclosure and the stront elements and the stront<br>instant and encloses for the stront and stront for the stront elements and the stront elements and paper and stront<br>or statements for the boards must welly proper function of any particle structures (201) bards per to the<br>which bardshord instances with proper function of any bards for the bards of the structure of the<br>which bardshord is est. Contractor must also verify proper function of any bards for the bards on the strafts of the<br>which bardshord is est. Contractor must also verify proper function of any bards for the bards.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |     | <u>`</u>    |                  |                |               |                                                                                                                |
| 10.23    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |     |             |                  |                | ×             |                                                                                                                |
| 10231    | reventions on compression.<br>La The constrain druck was previously modified to eliminate the time ddity with the result that braiding is instantionous when the<br>identification and its redeated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          | ×   |             |                  |                |               |                                                                                                                |
|          | Contractor must revie the druch such that an audible stert and the console indicator are activitied instantaneously and the<br>Initiation of trading is delayed for two seconds after the dearman handle is refeased.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          |     |             |                  |                |               |                                                                                                                |
|          | Controador must replace the Deadman Three Dealy Relay (DTR) in the anopulsion electronics locker at the arbitration.<br>Controador must replace the realy with the regized Sections "Type CLIPS" of a stimular type, and as stim TUSS. Controadors<br>Praces made with the diverge receiverses" for this replacement. Original and modified schematics for the chant will be provided                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          |     |             |                  |                |               |                                                                                                                |
| 10.23.2  | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          | ×   |             |                  |                |               |                                                                                                                |
| 10.23.3  | A contraction must reproduce to summary compared with the summary of the summary of the summary compared with the summary compared with the summary of the summary compared with the summary of the su |          | ×   |             |                  |                |               |                                                                                                                |
|          | Contractors struct retrove the CM standard as part of this work item and restore the vehicle to the original configuration. At will<br>remove reference in this medicate schematics for the details to Contractors to use as a reference in this hereafter this modification.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | _        |     |             | -                |                |               |                                                                                                                |
| 10234    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          | ×   |             |                  |                |               |                                                                                                                |
| J        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |     |             |                  |                |               |                                                                                                                |

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| 10.2.4 Trivel support<br>for well supply the relativished paragraph and new mountry its takens to the<br>Contractor forescore must be remove the existing paragraph and halfs. Contractor must broughly clean the root<br>are underscoll the postograph. Contractor must clean and inspect the face for and the surge arrestor body. Contractor<br>are underscoll to postograph. Contractor must clean and inspect the face for and the surge arrestor body. Contractor<br>and interfaced are readilyed appropriation with relating basics and subset for contractor of the surge arrestor body. Contractor<br>and interfaced are readilyed approximation with relating basics and subset for contractor of the surge arrestor body. Contractor<br>and arrestor are readilyed approximation with relating and an arrest approximation. | KT may, at its option, request removal of one or more sarge arrestors for testing. KT will supply a replocement sarge arrestor<br>to the Contractor for re-installation if the original was removed for testing. | Contractor must check and clean all air pipes and hoses as well as solenold valves for the participroph controls. Contractor<br>must clean and functionally test the foot pump, together with the corresponding control hoses and valves. | Contractor must replace grounding tetros, and alt hase between narrograph and rod.<br>Contractor must respect the high voltage withig between the puritograph, face box and surge arrestor and replace if required. | Atter re-basekation. Contracture tests the refer of the partiograph per the UTDC maintenance mainual to verify that contract<br>Is established without boundon. Contractor must test lowering of the participanty, verifying quick deconnect from the catevary<br>and smooth locking in the lowered position. | 10.2.5 Pressumed constance<br>Solution which has two hower Cound Units (PCU) is actual underfacer on the side of the vehicle. Such PCU candants 18 swetching<br>constants, 11 we constants (PCU) 1 only), and 1 pre-execution contactor. Contractor must remote these contactors and return<br>them in 57 for refurbitioner E1 will supply replocement contactors for re-tracklakon and verying on the vehicle after the<br>them are been determined. | 10.2.6 Vectors Transmittar<br>Corrector mast remove the existing wardet transmitter and controls to install an KT-compatible Vectors unit supplied by KT.<br>The RT wart has both masters and receive cublingly. The removal and refocialization foculdes installing the curritroff in this cost<br>of a collecter flowing wardet and an existing of the TMC calo anomyteriest. Contracting the curritroff is<br>for existing and existing and another and the transmitter and refocialization foculdes installing the curritroff is<br>the control of the control of the transmitter and existing in a curritroff of the curritroff of the control<br>of the curritroff of the carbon<br>of the curritroff of the carbon<br>of the curritroff of the carbon<br>curritroff of the curritroff of the<br>curritroff of the curritroff of the<br>curritroff of the curritroff of the<br>curritroff of the curritroff of the<br>curritroff of the curritroff of the<br>curritroff of the curritroff of the<br>curritroff of the curritroff of the cu | ${f X}$ a new mounting bracket is required, Contractor must submit the new mounting bracket design its ${f X}$ for review and written interval | 20.3.7 Natives togat<br>Corrector must teal a rathrad hasdight on the root one can cal. The headwint must include the electrical controls and<br>2 - 24/4G regulator power supply. Contrader must schemik witten decade of the mechanical and electrical instalktion to RT for<br>increase and must above the increase of the provided by RT. | 30.2.8 Hom and Gong<br>Conference must service and re-use the existing electronic hom and gong on the root, bigether with the electronic control how<br>(contract). | 10.2.3 Wwwe Neasters<br>Contractor must the power restors (start and holde resistors) for danaged restor elements, healdens, next and<br>immore contracts. Contractor must reacte of electore and dismost on st. Including contecting cables. | 10.3 Contractor and Text teagurements.<br>Contractor must complete the (clowing text requirements. | (1) Develop a separate procedure and farctionely rest for each medication listed in Socialen 10.2 above. Cartractor must<br>statilist the procedure for rTT review and written approval prior to testing. | <ol> <li>Contractor must provide the following exhibitable for KT approval:</li> <li>Contractor must provide the following exhibitable for KT approval:</li> <li>Common drank change documentation:</li> <li>TOR and RC registering documentation:</li> <li>TOR and RC registering the following exhibitable for KT approval:</li> <li>TOR and RC registering the following exhibitable for KT approval:</li> <li>TOR and RC registering the following exhibitable for KT approval:</li> <li>TOR and RC registering the following exhibitable for KT approval:</li> <li>TOR and RC registering the following exhibitable for KT registering the following exhibitable for KT registering exhibitable</li></ol> |

|          |                                                                                                                                                                                                                                                                                                                        | 4.11     |                        | Restances and a second s |        | Section 11      |                                             |      | <b>3</b> |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------|---------------------------------------------|------|----------|
| Clause # | s # REQUIREMENT                                                                                                                                                                                                                                                                                                        | ADDENDUM | FULLY COMPLY COMPLY W/ | COMPLY W/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | DO NOT | OUT OF SCOPE FO | OUT OF SCOPE FOR INFO ONLY TILS END COMMENT | TURK | Γ        |
| 2        | Work Scope<br>The work scope caretists of the following test categories performed on cach completed vehicle:                                                                                                                                                                                                           |          |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 | ×                                           |      | <b>1</b> |
|          | (1) Preurustic System Lexitage Test                                                                                                                                                                                                                                                                                    |          | ×                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 |                                             |      |          |
|          | (Z) Witing Insulation Test                                                                                                                                                                                                                                                                                             |          | <b>×</b> ;             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 |                                             |      |          |
|          | (3) Static Functional Testquired component testing.                                                                                                                                                                                                                                                                    |          | ×                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 |                                             |      |          |
|          | (4) Dynamik Operational Test                                                                                                                                                                                                                                                                                           |          | ×                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 |                                             |      |          |
| -        | All test records must be included in cost vehicle's Car History Book.                                                                                                                                                                                                                                                  |          |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 | <br>×                                       |      |          |
| TI       |                                                                                                                                                                                                                                                                                                                        |          | ×                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 |                                             |      | Т        |
| 112      | vertice constant than test must be performent. The remaining vertices must be tested for compliance by a series test processer.<br>2 Contraction must perform the following tests prior to acceptance of the refurbitished vehicles by RT.                                                                             |          | _                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 | ×                                           |      | T        |
|          | Contractor must context any deficienties found during the tasks.                                                                                                                                                                                                                                                       |          |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 |                                             |      | • • •    |
|          | Settlebetrary completion of the following tests is a condition for RT acceptance of the vehicles.                                                                                                                                                                                                                      |          |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 |                                             |      |          |
| 1211     |                                                                                                                                                                                                                                                                                                                        |          | ×                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 |                                             |      |          |
| 2211     |                                                                                                                                                                                                                                                                                                                        |          | ×                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 |                                             |      |          |
|          | The megger test must have the following minimum volues for each voltage dats:                                                                                                                                                                                                                                          |          |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 |                                             |      |          |
|          | Voltage Cass Kontrum Instanton Puestance<br>Beceve SV Z moustment XXX VVC<br>30 to XXV V A mession at XXX VVC<br>30 to XXV V A mession at XXX VVC<br>Above 30 V 5 mession at XXX VXE<br>For the high potential tests, the test veltage for the different voltage classes must comply with the following metalionnents: |          |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 |                                             |      |          |
|          | Voktage Class<br>Bedwing V & SSV V<br>95 the SGV 2000 V<br>The rests of the trian bottical lear will be eccented if to insulation threadown or exercisive lakabore current is desorred.                                                                                                                                |          |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 |                                             |      |          |
| 57H      |                                                                                                                                                                                                                                                                                                                        |          | ×                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 |                                             |      |          |
|          | Contractor must correct all descrepancies found during the static functional test.<br>Contractor must submit the Static functional Test for review and written approval by KT.                                                                                                                                         |          |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 |                                             |      |          |
| TTC II   |                                                                                                                                                                                                                                                                                                                        |          | ×                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 |                                             |      |          |
| 4        | The bio vehicle test must be abuilded for review and written approval by KT.<br>11.2.6 Dynamic Operational Ware Appendional test procedures for review and written approval by KT.                                                                                                                                     |          | ×                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                 |                                             |      |          |

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| adrinal test anst record the following signals as a antifutura:<br>an concentration<br>ports on each track<br>ports on each track<br>are Traintines<br>the Traintin the Traintines<br>the | received a construction operational test on each vehicle prior to acceptance by RT. The resting must demonstrat<br>task performance in motoring and braining is in companies with the original vehicle specification. |                                                                                                                                              |   |   |   |  |   |
| or, becelerated<br>porces on each track<br>are Transfers.<br>Transfers.<br>The Transfers.<br>The Transfers and the Standy and must tran the terss in both directors over the<br>ports. The some interfers at allows (charadra plasticu), Chimateur must analyze the recondings for<br>the Transfers. The version and version and the software transfer and the term of the exciting<br>the transfers. The version and version and the software transfer and the term of the exciting of<br>the same acceleration, mode charge of condings plasticu), Chimateur must analyze the recondings for<br>the same acceleration, mode charge of condings plasticu), Chimateur must analyze the recondings for<br>the same plastic strategies and the same transfers. And we have the recondings for<br>the same plast constrained and the same transfers. The same transfers of<br>the same plast constrained and the same transfers and the same transfers of<br>the the same plast constrained and the same transfers. The lead version<br>at the same plast constrained and the same transfers.<br>Transfers<br>at the transfer domain start the constrained term plast constrained to peration. The lead version<br>at the same plast constrained at the same transfer starts and the same transfers. The same starts<br>at the same plast constrained at the same transfers and the constroled starts the constrained starts of the constrained starts and the const                                                                                                                                                                                                                | c operational test must record the following signals as a minimum:                                                                                                                                                    |                                                                                                                                              |   |   |   |  |   |
| eore on out tuck.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ed<br>Le raitori, Deceleration                                                                                                                                                                                        |                                                                                                                                              |   |   |   |  |   |
| the Tradities.<br>Tradities.<br>The Tradities.<br>The Tradities and the State                                                                                                                                                                                                                                                 | 11.A<br>11.8                                                                                                                                                                                                          |                                                                                                                                              |   |   |   |  |   |
| De Tratalhes<br>De Tratalhes<br>exortist res valit verket spoets at ben 30 and 55 mph and must tra thes the findutors over the<br>exortist rest valit verket spoets at ben 30 and 55 mph and must tra the teres with verket spoets<br>exortist ray account with the performance of the month of the month of<br>exortist ray account with the performance of the month of the month of<br>exortist ray account with the performance of the month of<br>exortist ray account with the performance of the month of<br>exortist ray account with the performance of the month of<br>exortist ray account with the region regulation of the month of<br>exortist ray account with the region regulation of the month of<br>exortist ray account with the region of the month of<br>exortist ray account with the region of the month of<br>exortist ray account of the regulation of the regulation of<br>exortist ray account with the region of the regulation of the regulation. The<br>exortist ray account with the region of the regulation of the regulation of<br>account a series of the counted the regulation of the regulation of the regulation of<br>and series of the regulation of the regulation of the regulation of the regulation of<br>a series of the regulation of the regulation of the regulation of the regulation of<br>a series of the regulation of the regulation of the regulation of the regulation of<br>a series of the regulation of the regulation of the regulation of the regulation of<br>a series of the regulation of the regulation of the regulation of the regulation of<br>a series of the regulation of the regulation of the regulation of the regulation of<br>a series of the regulation of the regulation of the regulation of the regulation of<br>a series of the regulation of<br>a series of the regulation of<br>a series of the regulation of<br>a                                                                                                                                                                                                | ke Response en each truck                                                                                                                                                                                             |                                                                                                                                              |   |   |   |  |   |
| with verside species at bach 30 and 55 molt part must run the tests in bach directions over the processes acceleration, mode change condition between the tests in bach directions over the processes acceleration, mode change conditions that must change conditions the tests and move operation. The interface test is the change condition of the conditions of the condition of the conditions of the condition of the conditions of the condition                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                       |                                                                                                                                              |   |   |   |  |   |
| with verside species as both 30 and 55 mph and must run the tests in both directions over the<br>conserved and versions and allows (motion) periody. Character must answer the recomplicity for<br>non-served versions and must character and a served to the version of the eventual of the served to the constrained to the served to the constrained of the eventual of the served to the constrained to the served to the constrained to the served to the constrained of the eventual of the served to the constrained to the served to the constrained to the served to the constrained of the served to the constrained to the served to the constrained to the served to the constrained of the served to the constrained to the served to                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                       |                                                                                                                                              |   |   |   |  |   |
| with vehicle councils and Stimph and much run the secs. In bank directions over the<br>construct of vehicles, as a lines (induction that much run the secs) in bank directions over the<br>construct and vehicles, and have and proper operation of the revealings of<br>The reduction mode of charge, both and proper operation of the revealing of<br>the reduction of the profession construct much reads and proper operation. The lead vehicle<br>of the reduction of the revealing the comparative operation. The lead vehicle<br>operative is a two vehicles that have present the comparative operation. The lead vehicle<br>and the team vehicle start and the profession construct reads with the<br>start and the team vehicles that have a schored to the new teach and<br>with the team vehicle start profession lead to the other or obtain the<br>the atomic leads. Current and the start construction of the transition. The lead vehicle<br>the team vehicle start new (down a Store and the construct operational leading. The<br>with the team vehicle start new (down a Stored the transition operation of the transition<br>operation start new (down a stored operation of the transition operation in<br>the start new of the respective sports and constrol with the down as all state<br>operation start the transition of the transition of the transition operation in<br>the start start of the team vehicle. The lead we the constrol when the count is<br>the start to the start and the transition of the transition operation of the transition operation of<br>the start start is the start and the start and the start and the team start and<br>the start start team vehicle start and the start and the team and the operation of<br>the start start is the start and the team and the start and the team and the start and the team start and the transition operation of<br>the start start start and the team and the start and the team and the start and the team start                                                                                                                                                                                                            |                                                                                                                                                                                                                       |                                                                                                                                              |   |   | • |  |   |
| Make<br>address<br>address<br>address excitation in the constant in the second mark must make the rests in both directions over the<br>address many indexes excitation indexes and annow operation of the switching of<br>address. The values amonthanism performant mark mark mark marks the registrial<br>address mark mark mark mark mark mark mark mark                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ACA ROOM Training                                                                                                                                                                                                     |                                                                                                                                              |   |   |   |  |   |
| addine<br>and the conduct neck with verside speciels as all states (module states). In this directions over the<br>periods, instantimenues accuration, mode large states), conduct must rear the instantion of the evolution of<br>periods, instantimenues accuration, mode large states), conductive precision of the evolution of<br>the destromant the followerd by a two verside state of the conductive operation. In the large of the conductive operation of the evolution of<br>the destromant the followerd by a two verside state of the conductive operation. The land versities<br>and state mode state of the conductive operation of the evolution of the evolution of<br>the destromant the followerd by a two version externation of the evolution of the evolution of<br>the destromant the followerd by a two version externation of the evolution o                                                                                                                                                                                                                                      |                                                                                                                                                                                                                       |                                                                                                                                              |   |   |   |  |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 21                                                                                                                                                                                                                    |                                                                                                                                              | _ |   |   |  |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Training                                                                                                                                                                                                              |                                                                                                                                              |   |   |   |  |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | - must conduct tests with vehicle speeds at both 30 and 55 mph and must run the tests in both directions over th                                                                                                      |                                                                                                                                              |   |   |   |  |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ion of track. RT will operate all vehicles at all lines (including tecting). Contractor must analyze the recordings for                                                                                               |                                                                                                                                              |   |   |   |  | - |
| veskóc<br>6. The<br>Testing<br>Tresting<br>Artho<br>Banda<br>Sanciaro<br>Sanciaro<br>Sanciaro                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | cooleration, instantaneous acceleration, mode change doad times, jerk, and proper operation of the switching                                                                                                          |                                                                                                                                              |   |   |   |  |   |
| I must be followed by a how vehicle teacing to confirm training the compatible operation. The lead vehicle<br>carrier life i resourcerection as for the operated the single vehicle dynamic teachs. The<br>Develope dynamic lead using three vehicles that have passed the single vehicle dynamic teach. The<br>Develope dynamic lead using three vehicles that have passed the single vehicle dynamic teach. The<br>Develope dynamic lead using three vehicles that have passed the single vehicle dynamic teach. The<br>Develope dynamic lead using three vehicles that have a control vehicle. During the<br>passed with the teams teach down and portion a stochante burnin teach on vehicle. During them<br>a of operational starting, contrading and synthe team the operation of the<br>content must lead three. Single as welly corrected and down the down the operation of the regulary. The stochants<br>are effected with the stochant espectively spaced events, as<br>and the downed proceedings specified. In writing Dy XI,<br>a front first lead procedure<br>a stochanter (type field).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | and include braines. The version inter control with the periodimenticity or the underlied periodical sector sector and                                                                                                |                                                                                                                                              |   |   |   |  |   |
| c carrer test instrumentation as for the chranuld testing.<br>Develote dynamic less using three vehicles that have passed the study vehicle chranic less using three vehicles optimatic carrange and the same test instrumentation as for the study evalued chranic correctional restring. The<br>post time tests and music follower the optimatic correctional less procedure.<br>a correction testing, Contrandor must perform a Stochenel less procedure.<br>a some states of the state and the state and the structure less of a state vehicle. Darifo thum-<br>a some states of which the optimatic correction is stochenel less procedure.<br>a some states of which the optimatic correction is stochenel less procedure.<br>a some states of the state and a state and contrart and contrary and contrary and contrary and the test hum-in tests or encastrowinghout the test contraction.<br>I choose the state of the state state and contrart and contrarts and state of the results.<br>I choose the state and the state and the state and the results, the stores a state and the state and the followers and the state and the results.<br>I choose the state and the state and the results are stated and the results.<br>I choose the state and the state and the results are stated to hum-in the followers and the results are the state and the results.<br>I choose the state and the state and the results are stated and the results.<br>I choose the state and the restorement up to a state and the results.<br>I choose the state and the restorement experted in writing DV stit.<br>I choose the restorement and the restorement and the results are and the results.<br>I choose the restorement and the restorement and the results are and the results are and the restorement and the restorem                                                                                                                                                                                                                       | ere secure<br>le vehice recting must be followed by a two vehice testing to confirm trainitie competible operation. The lead veh                                                                                      |                                                                                                                                              |   |   |   |  |   |
| Are hide, dynamic lest using three vehicles that have passed the single vehicle dynamic lest using three vehicles that have passed the single vehicle dynamic lest using three vehicles is the test restance and the single vehicle. The pass with the same test insurrentation as for the single vehicle dynamic operational testing. Testing, a core time test and music following to state the same test insuranted and the single vehicle dynamic domains on the single vehicle. The passes of operational testing, tes                                                                                                                                                                                                                                                      | outpped with the same test instrumentation as for the dynamic testing.                                                                                                                                                |                                                                                                                                              | - |   |   |  | Ţ |
| Developed optimize least usual three vertices that have passed the strade version strate least usual three versions so for the strade optimist to strate. The least of the strate                                                                                                                                                                                                                                                      | thicked Tentimet                                                                                                                                                                                                      | ×                                                                                                                                            |   |   |   |  |   |
| - operational technol. Technol<br>con each verkels. During burn-<br>verker muck to operated in<br>verker exercs as (associans)<br>phytoped events, as<br>repairs, the 500-mile burn-in<br>repairs, the 500-mile burn-in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | r must perform 3-vehicle dynamic test using three vehicles that have passed the single vehicle dynamic testing. Th                                                                                                    |                                                                                                                                              |   |   |   |  |   |
| cn each veikde. Durfro burn-<br>veikde macibe openeikel in<br>veikde macibe openeikel in<br>photped events, as<br>repairs, tho 500-mile burn-in<br>repairs, tho 500-mile burn-in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | de must be equipped with the same text instrumentation as for the single vehicle dynamic operational textup. Tes<br>vehicle consist is a one time text and must follow the dynamic operational text procedure.        |                                                                                                                                              |   |   | _ |  | Т |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Teaching                                                                                                                                                                                                              |                                                                                                                                              |   |   |   |  |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | costil completion of operationsi testing, Contractor must perform a SUPHIBIC During test on each version. Unrin<br>                                                                                                   |                                                                                                                                              |   |   |   |  |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | the first found a store using when you we share when we will success the second mean one for the doors at all stat                                                                                                    | (Sue                                                                                                                                         |   |   |   |  |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | and should be must be approved by RT before the first hum-in test. Failures or excessively-boyed events, as                                                                                                           |                                                                                                                                              |   |   |   |  |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | d by XT, will require Contractor repair of the respective systems. Upon completion of the repairs, the 500-mile bu                                                                                                    | <u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u> |   |   |   |  |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | but anow. The burn-in must be performed following procedures approved in writing by KT.                                                                                                                               |                                                                                                                                              |   |   |   |  |   |
| and: System Leadory Tes Procedure<br>En Endonal Tes Procedure<br>En Costadora Tes Procedure<br>Les Costadora Tes Procedure<br>Vaste Constant Procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | r aust subrak the following for RT approval:                                                                                                                                                                          | ×                                                                                                                                            |   |   |   |  |   |
| Insulation for the Procedure<br>Microsoft Test Procedure<br>Le Operational Test Procedure (Type Test)<br>Test Procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | adic System Lealage Test Procedure                                                                                                                                                                                    |                                                                                                                                              |   |   |   |  | _ |
| instantion first measure<br>formation first measure<br>Test Procedure<br>Test Procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Insulation Test Procedure                                                                                                                                                                                             |                                                                                                                                              |   | - |   |  |   |
| Test Photosum<br>Vestable Consist Test Photosum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | turcional tess fraceaure<br>Le novembrail Test Brenedure (Ture Test)                                                                                                                                                  |                                                                                                                                              |   |   |   |  |   |
| VestAc Const Tes Procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Test Procedure                                                                                                                                                                                                        |                                                                                                                                              |   |   |   |  |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Vehicle Consist Test Procedure                                                                                                                                                                                        |                                                                                                                                              |   |   |   |  |   |

| L        | (************************************                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          | 24.12          |           |        | Saction 12   | n 12          | SECONDER                                   | <ul> <li>Control Control Control on Society</li> </ul> |  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------|-----------|--------|--------------|---------------|--------------------------------------------|--------------------------------------------------------|--|
|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | STA      | TEMENT OF COMP |           |        |              |               |                                            |                                                        |  |
| Clause # | REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ADDENDUM |                | COMPLY w/ | DO NOT | OUT OF SCOPE | FOR INFO ONLY | OUT OF SCOPE FOR INFO ONLY TLS END COMMENT |                                                        |  |
| ä        | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          |                |           |        |              | ×             |                                            |                                                        |  |
|          | interwork scope doitsets of provinsing are individing any output, and/or documented                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          | ×              |           |        |              |               |                                            |                                                        |  |
|          | (L) Substitution regions from the service of the service service of the service o               |          | ()             |           |        |              |               | _                                          |                                                        |  |
|          | (2) Ferthes Schematics for new components and systems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          | ×              |           |        |              |               |                                            |                                                        |  |
|          | (4) Thistornet Denis Creation for new contropertic and systems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          | ×              |           |        |              |               |                                            |                                                        |  |
|          | ry and the second second to the second to the second second second second second second second second second se                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          | ×              |           |        |              |               |                                            |                                                        |  |
|          | (A) Peribrement Streets for Dicherality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |          | ×              |           |        |              |               |                                            |                                                        |  |
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|          | (R) Car History Broke                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          | ×              |           |        |              |               |                                            |                                                        |  |
|          | (c) the mean proves                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          | ×              |           |        |              |               |                                            |                                                        |  |
|          | (10) CarSte Stateout                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |          | ×              |           |        |              | _             |                                            |                                                        |  |
| H        | 12.1 Venture and a second second second remarks, which must include the original manuels and all quotess interpret terms apply 10 complete sections. All manuals, must be reproduced on sandard 8-12 x 11 in pages. The birder contest interpret of the time term of a start second remarks and all quotess must be reproduced on sandard 8-12 x 11 in pages. The birder contest must be to birder 10 to 10:12 in web and 11-12 to 12 in high. The birders must not excerd 3-in in orefall birdoness. Pranched birder contest must be to all vent and a 11-12 to 12 in high. The birders must not excerd 3-in in orefall birdoness. Pranched birder contest must be to all vent and the pages of the pages and all pages. The birder contest must be to all vent and an orefall birdoness. Fund the page of the pages of the pages of the page.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          | ×              |           |        |              |               |                                            |                                                        |  |
|          | Contractor must supply master provide enformed originals of all documents. The quality of the master must be such that                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          |                |           |        |              |               |                                            |                                                        |  |
|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          |                |           |        |              |               |                                            |                                                        |  |
|          | echoest to the non-Explain passage. All dimensions given in Nearlic units must also state the Boglish unit exprendents<br>parentisettably next to the Nearlic dimensions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |          |                |           |        |              |               |                                            |                                                        |  |
|          | All documents must be definered in electronic (current on CD-ROM in addition to the reproducible masters. Electronic media<br>Investors must be in the bases weaton of Addok Acotost.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |                |           |        |              |               |                                            |                                                        |  |
| 1        | ٣                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          |                |           |        |              |               |                                            |                                                        |  |
| ង        | 22.2.1 Price<br>Contractor must supply 3 Windows-based laptop computers, 30 or later, suitable to work with, maintain and diaptose new<br>Low-converse and se the commension and newst records. Fact 2011 must be interchanterable and Contractor must                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          | ×              |           |        |              |               |                                            |                                                        |  |
|          | requiring the start is an event mean system and we want that the start is a start of the start o               |          |                |           |        |              |               |                                            |                                                        |  |
| 1<br>C   | 12.2.2 Contractor must provide Running Repuir Manuals for the communications system, auditary power supply, and any other                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |          | ×              |           |        |              |               |                                            |                                                        |  |
|          | component or system where Contractor's Varia Carago the maintenance rectarements more the organization and and in the<br>Running Regust Waternames provide all information recteded for preventable markineance and objectived, and on-the trouble<br>depress of each system. Housing such data as troubleshooding guides, equipment specifications, and softenables both<br>events and remeasting such data as troubleshooding guides, equipment specifications, and softenables both<br>events and remeasting such data as troubleshooding guides, equipment specifications, and softenables both<br>events and remeasting such data as troubleshooding guides, equipment specifications, and softenables both<br>events and remeasting such data as troubleshooding guides, equipment specifications, and softenables both<br>events and remeasting such as a set of the set of |          |                |           |        |              |               |                                            |                                                        |  |
| 17       | 12.2.3 Kcory Repoir Mentaks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          | ×              |           |        |              |               |                                            |                                                        |  |
|          | Contractor must provide Heary Repair Manuals for the communications system, auditary power supply, and any othe<br>component or system where Contractor's work has changed the maintenance, requirements from the original manuals. The                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |          |                |           |        |              |               |                                            |                                                        |  |
|          | Heary Repair Manuals must contain a decailed analysis of each component of the system so that maintenance start can<br>effectively perform service, inspection, muniterance, adjustments, broublescooting, replace methods, and overhaul. The                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |                |           |        |              |               |                                            |                                                        |  |
| 14       | Heavy Repair Kanoss must include any special test equipment internationary under the contract.<br>12.2.4 Schematics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          | ×              |           |        |              |               |                                            |                                                        |  |
| F        | Contractor must update existing decritical schematics for all systems.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          | ×              |           |        |              |               |                                            |                                                        |  |
|          | Contractor must provide these parts there been modified or replaced of the garan and another power support the<br>systems or components, where parts have been modified or replaced offing the curves of work. Contractor must update the<br>existing parts consider, the Interactive Parts Cateling must enumerate and describe every component with its related parts for<br>the voludes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          | {              |           |        |              |               |                                            |                                                        |  |
|          | Contractor must provide an Distrated Parts Charkop for all special text equipment manufactured under this Contract.<br>Contractors must include this parts information in the Special Text Equipment Manuals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |                |           |        |              | -             |                                            |                                                        |  |
| H        | 11.2.6 Speedal Trast Equipments Manuada (PTU Software)<br>Speedal Trast Equipments Manuada (PTU Software)<br>abadiary power approximity for evides with or monderly new systems (normarizations and<br>abadiary power approxy, there will be a mond for special test equipment to this share systems. Communications and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          | ×              |           |        |              |               |                                            |                                                        |  |
| ]        | must supply Special Test Equipment Namuels for all specialized test equipment related to new components and systems<br>provided as a part of this relationment contract. This requirement copiles to all new software provided for this purpose.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |                |           |        |              |               |                                            |                                                        |  |

| ġ | 12.4 Submittais                                                                                                           | <br><br>× | <br> |  |  |
|---|---------------------------------------------------------------------------------------------------------------------------|-----------|------|--|--|
|   | Conractor must submit al manuals, training aids, integrated schemadics, and other muterial based on the Baseline Project  |           | <br> |  |  |
|   | Schedule. The first definery of material must be complete, but may be in draft form. With the second and final delivery,  | ••••      |      |  |  |
|   | Contractor must deliver all materials in final, approved form. Contractor must incorporate all revisions to all documents |           | <br> |  |  |
|   | quarterity until the end of the warranty period.                                                                          |           |      |  |  |
|   |                                                                                                                           | <br>      |      |  |  |
|   | The manust must be developed and validated as being accurate and suitable for the RT vehicle, support equipment,          | <br>      | <br> |  |  |
|   | maintenance facilities, and maintenance personnel. Contractor must deliver 5 review copies of each publication in 85%     | <br>      | <br> |  |  |
| _ | immediate dust form. Busi submittais must be delivered in the countrilles Mentified elsewhere in this Section.            |           |      |  |  |

| 41:                             | Tech<br>Spec<br>Section                                                                                                                                                                                   | Section<br>Name                                                                                                                                                                                                         | Reference<br>Section | Description                                                                                    |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------------------------------------------------------------------|
| ent.                            | 6.1                                                                                                                                                                                                       | General<br>Requirements                                                                                                                                                                                                 | Section 1            | Sample of Outgoing and Incoming Open<br>Item Inspection Checklist                              |
| N                               | <u>1.1</u>                                                                                                                                                                                                | General<br>Requirements                                                                                                                                                                                                 | Section 1            | Removed Material List must be submitted<br>for each Vehicle as part of the Car History<br>Book |
|                                 | tion 1: Additic                                                                                                                                                                                           | Section 1: Additional Project Documents                                                                                                                                                                                 |                      | Internal / Delivery<br>External Date Post                                                      |
| 1 Projec                        | 1 Project Quality Plan                                                                                                                                                                                    |                                                                                                                                                                                                                         |                      | Int & Ext TBD                                                                                  |
| 3 Projec<br>5 Veigh<br>5 Diffio | <ul> <li>Irroject Sarety rian</li> <li>Project Configuration Management Plan</li> <li>Project Environmental Information / Pur</li> <li>Weight Log Procedure</li> <li>Mintroina Texpection List</li> </ul> | <ul> <li>I Project Sarety Frain</li> <li>Project Configuration Management Plan</li> <li>Project Environmental Information / Purchasing Specification</li> <li>Weight Log Procedure</li> <li>Information List</li> </ul> |                      |                                                                                                |
| 10 8 10                         |                                                                                                                                                                                                           |                                                                                                                                                                                                                         |                      |                                                                                                |
|                                 |                                                                                                                                                                                                           |                                                                                                                                                                                                                         |                      |                                                                                                |
| 井                               | Tech<br>Spec<br>Section                                                                                                                                                                                   | Section<br>Name                                                                                                                                                                                                         | Reference<br>Section | Description                                                                                    |
| ಗ                               | 221                                                                                                                                                                                                       | Carbody                                                                                                                                                                                                                 | Section 2            | Color scheme and material of exterior wrap                                                     |
| र्ष                             | 221                                                                                                                                                                                                       | Carbody                                                                                                                                                                                                                 | Section 2            | Exterior repair procedure                                                                      |
| ່ວມ                             | 221.7                                                                                                                                                                                                     | Carbody                                                                                                                                                                                                                 | Section 2            | *Roof Water Based Cleaner Manufacturers<br>Data Sheets                                         |
|                                 |                                                                                                                                                                                                           |                                                                                                                                                                                                                         |                      |                                                                                                |

\*Roof Penetrating Sealer Manufacturers

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|-------------------------|----------------------------------------------------|-----------------------------------------------------|------------------------------------------------------|------------------------|-----------------------------|------------------------------------------------------|---------------------------------|----------------------|---------------------|
| Data Sh <del>eets</del> | Sealant and application procedure for end<br>masks | Cab and Passenger window installation<br>procedures | Rain gutter fabrication and installation<br>drawings | Interior color samples | Interior painting procedure | Seat cushion smoke and fiammability<br>certification | Console design review submittal | Ecterior side mirror | Internal / Delivery |
| vecaran L               | Section 2                                          | Section 2                                           | Section 2                                            | Section 2              | Section 2                   | Section 2                                            | Section 2                       | Section 2            |                     |
| Carbody                 | Carbody                                            | Carbody                                             | Carbody                                              | Carbody                | Carbody                     | Carbody                                              | Carbody                         | Carbody              |                     |
| 1-1 77                  | 222                                                | 226                                                 | 224                                                  | 227                    | 227                         | 22.10                                                | 22.11                           | 2217                 |                     |
| ci                      | N:                                                 | ထံ                                                  | ත්                                                   | ģ                      | <del>4</del><br>4<br>1      | 던                                                    | 13.                             | Ť                    |                     |

| ━┫┈┼╜╎╾╂╌╂╶┼╼╄╼╂╶┨                                                                                     | $\rangle$ |                                                                                                  | Internal / | Delivery<br>Date Post |
|--------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------|------------|-----------------------|
| air Manual; Class 1, 2 and 3 Repairs (complements Exterior Repair Procedure, above)<br>spair Procedure | $\langle$ | Section 2: Additional Project Documents                                                          | External   | AUN                   |
| spair Procedure                                                                                        | T         | l Carbody Repair Manual: Class 1, 2 and 3 Repairs (complements Exterior Repair Procedure, above) | Int        |                       |
|                                                                                                        | 2         |                                                                                                  | Int        |                       |
| 4 12 0 V 8                                                                                             | m<br>N    |                                                                                                  |            |                       |
| 5<br>6<br>8                                                                                            | 4         |                                                                                                  |            |                       |
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| 41             | Tech<br>Spec<br>Soction | Section<br>Name | Reference<br>Section | Description                                                                                                                            |
| 15.            | 3.4                     | Trois           | Section 3            | Record of serial numbers of all serialized<br>components installed on each truck                                                       |
| 1 <del>0</del> | 3.4                     | Trucics         | Section 3            | Record of all measurements required to be<br>verified according to the UTDC Heavy<br>Repair Manuals during reassembly on each<br>truck |
| 17.            | 3.4                     | Trucits         | Section 3            | Pressing force charts for mounting of each component on each axle                                                                      |
| œ́             | 3.4                     | Trucits         | Section 3            | Record of tests and adjustments required<br>after installation of each truck under the car                                             |
| 19.            | 322                     | Trucks          | Section 3            | NDE inspection/tests results                                                                                                           |
|                |                         |                 |                      | Delivery                                                                                                                               |

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| $\langle$ | Section 3: Additional Project Documents | External   | AEN                   |
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| *         | J ri accuric                            | 1+++       |                       |
| m         | s Truck Overhaul Procedure              |            |                       |
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|     | Spec                       | Section                       | Reference |                                                                                                         |
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|     | Section                    | Name                          | Section   | Description                                                                                             |
|     | 425                        | Misc. Mechanical<br>Equipment | Section 4 | Painting procedure. MSDS, and paint type<br>used for battery box                                        |
|     | 427                        | Misc. Mechanical<br>Equipment | Section 4 | Record of verification of coupler anchor bolt<br>torque, height of coupler head, and<br>gathering range |
|     | 4.2.8                      | Misc. Mechanical<br>Equipment | Section 4 | Weiding procedure for articulation bracket, if<br>required                                              |
|     | 4.4                        | Misc. Mechanical<br>Equipment | Section 4 | New sander nozzie design                                                                                |
|     | **                         | Misc. Mechanical<br>Equipment | Section 4 | Drum switch overhaul procedure                                                                          |
|     | 4.4                        | Mise. Mechanical<br>Equipment | Section 4 | Air leakage test procedure                                                                              |
| Sec | Section 4: Additional Proj | onal Project Documents        |           | Internal / Delivery<br>External NTP                                                                     |
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| Description             | APS qualification test procedure and test<br>performance. Contractor is encouraged to |
|-------------------------|---------------------------------------------------------------------------------------|
| Reference<br>Section    | Section 5                                                                             |
| Section<br>Name         | Auxillary Power<br>Svstem                                                             |
| Tech<br>Spec<br>Section | 52.1                                                                                  |
| HÞ                      | 26.                                                                                   |

| <b>.</b>  |           |                           |           |                                                                                                                                                                                                                       |
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| 27.       | 521       | Auxillary Power<br>System | Section 5 | Select a supplier with a previous record of a qualification on the same unit and submit the test report for RT qualification test waiver                                                                              |
| <b>38</b> | 5.4       | Auxillary Power<br>System | Section 5 | APS conformance test procedure                                                                                                                                                                                        |
| ส่        | 5.4       | Audilary Power<br>System  | Section 5 | APS conformance æst report for each unit                                                                                                                                                                              |
| ଜ         | 4<br>10   | Audilary Power<br>System  | Section 5 | Audilary Power Supply design report<br>including load calculations, operational<br>descriptions, rating sheets, software<br>descriptions, diagnostics description,<br>electrical schematics, and assembly<br>drawings |
| 31.       | 5.4       | Auxillary Power<br>System | Section 5 | Recommended fault annunciation and<br>internal protection strategy for the APS<br>system                                                                                                                              |
| 33        | 5.4       | Auxillary Power<br>System | Section 5 | APS installation drawings with structural calculations                                                                                                                                                                |
| Ŕ         | 5.4       | Auxillary Power<br>System | Section 5 | Battery circuit breaker test report with fault current calculations for battery bank                                                                                                                                  |
| 7         | 5.<br>4.3 | Auxillary Power<br>System | Section 5 | Battery circuit breaker enclosure and<br>installation drawings                                                                                                                                                        |
| સુર       | 5.4       | Auxilary Power<br>System  | Section 5 | Battery over-temperature sensor data sheet<br>and settings                                                                                                                                                            |

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|                                                    |   |   |    |     |   |   |   |      |                      | est report and<br>orator and                                                                       | ebuilder's test<br>each compressor                                                         | rocedure                        | t report for each                        | tion test following<br>must be performed                                                 | tuding refrigeration                          |
|----------------------------------------------------|---|---|----|-----|---|---|---|------|----------------------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------|------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------|
| Internal / Delivery<br>External / Date Post<br>MJP |   |   |    |     |   |   | - |      | Description          | Manufacturer's pressure test report and<br>certification for each evaporator and<br>condenser coil | Carlyle or its authorized rebuilder's test<br>report and certification for each compressor | HVAC conformance test procedure | HVAC conformance æst report for<br>unit. | A high voltage and insulation test following<br>current NEMA standards must be performed | HWAC unit inspection, including refrigeration |
|                                                    |   |   |    |     |   |   |   |      | Reference<br>Section | Section 6                                                                                          | Section B                                                                                  | Section 6                       | Section 6                                | Section 6                                                                                | ł                                             |
| onal Project Documents                             |   |   |    |     |   |   |   |      | Section<br>Name      | HVAC                                                                                               | HVAC                                                                                       | HVAC                            | HVAC                                     | HVAC                                                                                     | HVAC                                          |
| Section 5: Additional Proje                        |   |   |    |     |   |   |   | Tech | Spec<br>Section      | 83                                                                                                 | e e                                                                                        | 6.3                             | 6.3                                      | <del>6</del> .3                                                                          | 1                                             |
| 1 Tradic                                           | 3 | 4 | 22 | 0 1 | 8 | 6 | 2 |      | 붺                    | 38.                                                                                                | 37.                                                                                        | 38.                             | Ŕ                                        | C.                                                                                       |                                               |

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| WAC     Section 6     system, electrical equipment, frame and<br>inusing, procedure       HVAC     Section 6     HVAC Disassembly procedure, including<br>refrigeration system, electrical equipment,<br>frame and housing       HVAC     Section 6     HVAC unit clearing procedure, including       HVAC     Section 6     HVAC unit clearing procedure, including       HVAC     Section 6     HVAC unit clearing procedure, including       HVAC     Section 6     HVAC unit reassembly procedure, including       HVAC     Section 6     Evaporator and Condenser coil designs       HVAC     Section 6     HVAC unit re-assembly procedure | le and                                    |                | cluding<br>iipment                                            | signs            | đ                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------|---------------------------------------------------------------|------------------|-------------------------------|
| Section 6<br>Section 6<br>Section 6<br>Section 6<br>Section 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | equipment, fræn<br>e                      | ly procedure   | g procedure, in<br>m, electrical eqi<br>J                     | ondenser coil d  | embiy procedur                |
| Section 6<br>Section 6<br>Section 6<br>Section 6<br>Section 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | system, electrical (<br>housing, procedur | HVAC Disassemb | HVAC unit cleanin<br>refrigeration syste<br>frame and housing | Evaporator and Q | HVAC unit r <del>e-</del> ass |
| HVAC<br>HVAC<br>HVAC<br>HVAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                           |                | Section B                                                     | Section 6        | Section 6                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                           | HVAC           | HVAC                                                          | HVAC             | HVAC                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 41. 63                                    | 42             | 43.                                                           | 44.              | 45.                           |

|                                              | Internal / | Internal / Delivery |
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| Section 6: Additional Project Documents      | External   | ATTN                |
| 1 HVAC Unit Overhaul Technical Soecification | Int        |                     |
| 2 Ibuct Clean, Inspect and Repair Procedures | Int        |                     |
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|                         | Complete prototype installation test on the |
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| Description             | Complete prototup                           |
| Reference<br>Section    |                                             |
| Section<br>Name         |                                             |
| Tech<br>Spec<br>Section |                                             |
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| first two Vehicles and test in a 2 car consist.<br>Prototype must provide the standard for the<br>installation of the remaining units | Installation drawings for the ADA ramp | Complete parts list for the installation of the ramps | Package of modified vehicle schematics<br>showing the changes in the door control<br>circuit | Catalog cuts for all switches and indicators<br>required in this section | Internal / Delivery |
| Section 7                                                                                                                             | Section 7                              | Section 7                                             | Section 7                                                                                    | Section 7                                                                |                     |
| Door System                                                                                                                           | Door System                            | Door System                                           | Door System                                                                                  | Door System                                                              |                     |
| 7.3                                                                                                                                   | 7.4                                    | 47                                                    | 7.4                                                                                          | <del>5</del> 7                                                           |                     |
| 48,                                                                                                                                   | 47.                                    | 8                                                     | 48,                                                                                          | 50.                                                                      |                     |

| Section 7: Additional Project Documents | Internal /<br>External | Internal / Delivery<br>External NTP |
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| 46 | Tech<br>Spec<br>Section | Section<br>Name | Reference<br>Section | Description |  |
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| Communications conformance test<br>procedure | Communications conformance test report<br>for each unit | Communications Design Report: consisting<br>of passenger intercom details, station<br>design and functions, interface with the cab,<br>the existing locations for speakers and<br>displays and operating procedures | Detailed cab and cab layout drawings<br>showing all specified components | PA system details, including amplifiers,<br>speaker, microphone characteristics,<br>volume adjustment procedures, automatic<br>volume control, and similar | Destination/Information sign details.<br>manufacturer, resolution, brightness.<br>interfaces to the information system | Video surveillance system camera locations<br>and field of views | TWC Installation Plans   |
|----------------------------------------------|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------------|
| Section 8                                    | Section 8                                               | Section 8                                                                                                                                                                                                           | Section 8                                                                | Section 8                                                                                                                                                  | Section 8                                                                                                              | Section 8                                                        | Section 8                |
| Communications<br>System                     | Communications<br>System                                | Communications<br>System                                                                                                                                                                                            | Communications<br>System                                                 | Communications<br>System                                                                                                                                   | Communications<br>System                                                                                               | Communications<br>System                                         | Communications<br>System |
| 4.                                           | 4.8                                                     | 00<br>4.                                                                                                                                                                                                            | 8.4<br>4.0                                                               | 8<br>4                                                                                                                                                     | 8.<br>4.                                                                                                               | 80<br>4                                                          | 80<br>4                  |
| ца<br>Г                                      | 23                                                      | Ŕ                                                                                                                                                                                                                   |                                                                          | ŝ                                                                                                                                                          | ଞ                                                                                                                      | 57.                                                              | ŝ                        |

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| 2  | ection 8: Additional Project Documents |                                           | AUN I                 |
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| 44      | Spec<br>Section            | Section<br>Name                                        | Reference<br>Section | Description                                                                                                  |                                                             |
| ଞ୍ଚ     | 8.4                        | Event Recorder                                         | Section 9            | Certification from the event recorder<br>supplier that the recorder meets all<br>requirements of IEEE 1482.1 | event recorder<br>rder meets all<br>: 1482.1                |
| ଞ       | 4.0                        | Event Recorder                                         | Section 8            | Technical description of event recorder                                                                      | of event recorder                                           |
| 6       | 0)<br>4.                   | Event Recorder                                         | Section 9            | Installation design review package                                                                           | vi <del>e</del> w package                                   |
| ଷ       | 8.4                        | Event Recorder                                         | Section 9            | Electrical Interface Design Package                                                                          | esign Package                                               |
| See See | Section 9: Additional Proj | tional Project Documents<br>of Conforming to LEEE 1482 |                      | Internal /<br>External /<br>Ext                                                                              | Delivery<br>Date Post<br>NIP<br>Prior to first installation |
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| Section 9. Addition            | onal Proiect Documents              | Internal /<br>External | Internal / Delivery<br>External NITP |            |
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| 1 Brant Remuler Certificate of | differte of Conformino to IEEE 1482 | Ę                      | Prior to first in                    | stallation |
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| 井   | Tech<br>Spec<br>Section | Section<br>Name               | Reference<br>Section | Description                                                                                                                                                                      |
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| Ŕ   | 10.4                    | Misc. Electrical<br>Equipment | Section 10           | Develop a separate procedure and functionally test for each modification listed in Section 10.2 above. Procedure must be submitted for RT's review and approval prior to testing |
| 2   | 40<br>44                | Misc. Electrical<br>Equipment | Section 10           | Functionally tests of the propulsion<br>contactors without the application of high<br>voltage power on the vehicle                                                               |
| Ŕ   | 10.4                    | Misc. Becrical<br>Equipment   | Section 10           | Clearing procedures for electrical/electronic equipment                                                                                                                          |
| Ŕ   | 40                      | Misc. Bectrical<br>Equipment  | Section 10           | Control circuit change documentation                                                                                                                                             |
| 67. | 401                     | Misc. Electrical<br>Equipment | Section 10           | TOR and NKR replacement relays                                                                                                                                                   |
| ස්  | 4.0                     | Misc. Electrical<br>Equipment | Section 10           | Procedure for installation of RT VECOM<br>controller and transmitter                                                                                                             |
| 88  | 10.4                    | Misc. Electrical<br>Equipment | Section 10           | Mounting bracket for VECOM transmitter                                                                                                                                           |
|     |                         |                               |                      |                                                                                                                                                                                  |

| Aise. Electrical Section 10 Mounting for railroad headlight | onai Project Documents                   |       |       |                       | section Reference Description | /ehide Testing Section 11 Pneumatic System Leakage Test Procedure | Vehicle Testing Section 11 Wining Insulation Test Procedure Static | Vehicle Testing Section 11 Functional Test Procedure | Vehicle Testing Section 11 Dynamic Operational Test Procedure (Type Test) | Vehide Testing Section 11 Series Test Procedure | Variate Testion 11 Three Car Consist Test Procedure and<br>Variate Testion |
|-------------------------------------------------------------|------------------------------------------|-------|-------|-----------------------|-------------------------------|-------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------|----------------------------------------------------------------------------|
|                                                             | Section 10: Additional Project Documents |       |       |                       | Section F<br>Name             | Vehide Testing                                                    | Vehide Testing                                                     | Vehide Testing                                       | Vehide Testing                                                            | Vehide Testing                                  |                                                                            |
| 4:<br>4:                                                    | tion 10: Additi                          |       |       |                       | Tech<br>Spec<br>Section       | 408<br>()<br>()                                                   | £1.3                                                               | 11.3                                                 | 13                                                                        | مرد<br>بر<br>ال                                 | 11.3                                                                       |
| 70.                                                         | Sec                                      | 0 6 4 | 7 6 5 | 0<br>0<br>0<br>0<br>0 | 41:                           | 71.                                                               | 72                                                                 | 73.                                                  | <u>.</u> 4.                                                               | 75.                                             | 76.                                                                        |

| dure             | Internal / Delivery<br>External NTP<br>NTP |                         | All manuals. training aids, integrated<br>schematics, and other material | All materials must be delivered in final,<br>approved form | All revisions to all documents must be<br>incorporated no less frequently than<br>quarterly | Final submittals must be delivered in the<br>quantities identified. One original set of<br>each deliverable must also be provided to<br>RT |
|------------------|--------------------------------------------|-------------------------|--------------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Bum-in Procedure |                                            | Description             | All manuais.<br>schematics, a                                            | All materials m<br>approved form                           | All revisions i<br>incorporated<br>quarterly                                                | Final submit<br>quantities idt<br>each deliver<br>RT                                                                                       |
| Section 11       |                                            | Reference<br>Section    | Section 12                                                               | Section 12                                                 | Section 12                                                                                  | Section 12                                                                                                                                 |
| vende testing    | ional Project Documents                    | Section<br>Name         | System Support                                                           | System Support                                             | System Support                                                                              | System Support                                                                                                                             |
| 1.3              | Section 11: Additional Pr                  | Tech<br>Spec<br>Section | 123                                                                      | 123                                                        | 123                                                                                         | 123                                                                                                                                        |
| 77.              |                                            | #                       | 78.                                                                      | 79.                                                        | C,                                                                                          | 81.                                                                                                                                        |

| Section 12: Additional Project Documents          1         2         4         5         6         8         9 |                                     |
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| 41: | Spec<br>Section | Section<br>Name              | Reference<br>Section | Description                           |
| 8   | 13243           | Materials and<br>Workmanship | Section 13           | Welding Procedures and Specifications |
| ង   | 13.2.5.3        | Materials and<br>Workmanship | Section 13           | Bonding Procedures                    |
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| Section 13: Additional Project Documents             | Internal /<br>External | Delivery<br>Date Post<br>NTP |                                          |
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| nicals and like materials brought into SacRT premise | Int & Ext              | 08L                          |                                          |
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| Level | Release    | Changes Made                                  | Initials |
|       | 10/22/2011 | Initial Release                               | CDW      |
| A     | 10/24/2011 | Revised all sections to incorporate comments. | CDW      |
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STATE OF CALIFORNIA-BUSINESS, TRANSPORTATION AND HOUSING AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION DIVISION OF RAIL 1120 N STREET P. O. BOX 942874 -- MS 74 SACRAMENTO, CA 94274-0001 PHONE (916) 651-9537 FAX (916) 653-4565 TTY 711



Flex your power! Be energy efficient!

June 1, 2012

To Whom It May Concern:

It is my pleasure to submit this letter of commendation for Telly Sionides, Project Manager, ALSTOM Transportation.

Mr. Sionides successfully managed a \$13 million project to overhaul 66 passenger railcars owned by the State of California, Department of Transportation (Caltrans). The project, included replacement of door operators and overhaul of wheelchair lifts on 66 bi-level cars. The old doors were failing at a rapid rate. Were it not for the successful execution of the project, there was a real risk the fleet would not have been available for service to our customers who depend on reliable passenger rail transportation. The contract required extensive field warranty and field modification work, all of which were performed on cars that were in high demand for passenger service.

The overhaul project required a great deal of logistical work with myriad "partners" including Caltrans, Amtrak, and a joint powers agency. In addition, there were unforeseen problems early in the overhaul with quality of parts provided by a supplier. Mr. Sionides skillfully navigated these challenges and delivered the project on time and within budget. He was able to accomplish this by providing strong leadership to his team, close supervision of a problem supplier, and successfully managing all aspects of the project.

Sincerely Bubiento

LISA A.C. BUBIENKO, Chief Rolling Stock Procurement Branch

"Caltrans improves mobility across California"

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STATE OF CALIFORNIA-BUSINESS, TRANSPORTATION AND HOUSING AGENCY

DEPARTMENT OF TRANSPORTATION DIVISION OF RAIL 1120 N STREET P. O. BOX 942874 – MS 74 SACRAMENTO, CA 94274-0001 PHONE (916) 651-9537 FAX (916) 653-4565 TTY 711 EDMUND G. BROWN Jr., Governor



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LISA A.C. BUBIENKO, Chief Rolling Stock Procurement Branch



## Infrastructure & Cities

Siemens Statement to the Board RE: RFP: 2010043 June 11<sup>th</sup>, 2012

Siemens would like to take this opportunity to thank Sacramento Regional Transit for the recommendation that Siemens be awarded the Light Rail Vehicle Refurbishment Project of the 21 UTDC vehicles.

Siemens would like to further highlight our strengths as the company best able to perform the prescribed scope of work:

We have co-located all of our manufacturing, quality management, engineering, project management and other related resources in our Sacramento facility. This allows us to respond quickly and efficiently to any issues that may arise and continue to provide on-going support throughout the lifecycle of the vehicle.

A project of this nature is technically challenging and extremely complex, in many ways more complex than building the vehicle to begin with. As such, Siemens recognized the need for a highly-skilled and qualified project team to handle this refurbishment. Our previous experiences with refurbishment work show this to be absolutely essential for a project that is successful for both parties. Further, Light Rail Vehicles are our core competence and our Sacramento facility is predominantly dedicated to work in this area, creating a local pool of resources that will be leveraged to the mutual gain of Siemens and Sacramento RT.

Siemens went into this proposal with a very comprehensive approach and made sure we learned as much as possible about the UTDC vehicles. Siemens recognizes the technical complexity of the work requested by Sacramento RT. Siemens also understands that any misalignment of understanding on refurbishment work creates a potential situation where both parties will experience increased costs and schedule delays. In seeking to avoid this situation, Siemens put extensive efforts into both the proposal and the post-proposal clarification meetings. We knew that this was the best way to deliver a high-quality proposal and, if awarded, a technically superior product in the end.

Siemens truly appreciated the opportunity to provide recommendations for cost savings. During this process, Siemens was able to leverage its project and engineering resources to provide ideas that provided the best value to Sacramento and very much appreciated the receptiveness that Sacramento RT showed to take a collaborative approach to alternate solutions.

Siemens believes that Sacramento RT has performed a thorough evaluation of the bidders, as supported by the findings of an independent 3<sup>rd</sup> party evaluator.

Thank you for your time and consideration.

Page 11 of 1

Siemens Industry, Inc. Infrastructure & Cities Sector 7464 French Road Sacramento, CA 95828 USA Tel: +1 916-681-3000 Fax: +1 916 681 3006 usa.siemens.com/infrastructure-cities

#### RESOLUTION NO. 12-06-

Adopted by the Board of Directors of the Sacramento Regional Transit District on this date:

#### <u>June 11, 2012</u>

## DENYING ALSTOM TRANSPORTATION INC.'S PROTEST AND CONDITIONALLY AWARDING A CONTRACT FOR UTDC LIGHT RAIL VEHICLE REFURBISHMENT SIEMENS INDUSTRY, INC.

WHEREAS, on May 19, 2011, the Sacramento Regional Transit District (RT) released a Request for Proposals for UTDC Light Rail Vehicle Refurbishment; and

WHEREAS, on February 21, 2012, after receiving initial proposals, conducting negotiations, and requesting final offers, RT staff issued letters to Alstom Transportation Inc. (Alstom) and Siemens Industry Inc. (Siemens) stating RT's intent to recommend conditional award of a contract for UTDC Light Rail Refurbishment to Siemens Industry Inc.; and

WHEREAS, a properly-filed protest was filed by Alstom on February 23, 2012; and

WHEREAS, after evaluating the protest, staff issued a preliminary decision that the protested lacked merit; and

WHEREAS, upon receipt of the preliminary decision, Alstom requested further consideration of the protest and provided further arguments in support of its protest; and

WHEREAS, a third party reviewer reviewed the procurement, found that Alstom's protest lacks merit, and concurred with the determination made by the RT evaluators that the Siemens proposal is superior.

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE BOARD OF DIRECTORS OF THE SACRAMENTO REGIONAL TRANSIT DISTRICT AS FOLLOWS:

THAT, the Board has conducted a hearing on the protest filed by Alstom with respect to the notice of intent to award a contract for UTDC Light Rail Vehicle Refurbishment and has considered the evidence and all other matters properly before it in accordance with the bid protest procedures applicable hereto.

THAT, the findings and determination of the RT staff, as set out in RT's letter dated February 28, 2012, and as further described in the RT staff report dated June 1, 2012, and the attachments thereto, are hereby adopted as the findings and determination of the Board of the Sacramento Regional Transit District, and Alstom's Bid Protest is hereby denied.

THAT, the Board finds that Siemens Industry, Inc. is the most qualified firm submitting a proposal for the Contract for UTDC Light Rail Vehicle Refurbishment.

THAT, the Contract between Sacramento Regional Transit District, therein referred to as "RT," and Siemens Industry, Inc., therein referred to as "Consultant," whereby Consultant agrees to provide UTDC Light Rail Vehicle Refurbishment project services, as specified, for an amount not to exceed \$19,676,099.70, is hereby approved contingent upon Siemens Industry, Inc's. compliance with the Buy America Pre-Award Audit requirements.

THAT, the General Manager/CEO is hereby authorized and directed to execute said Contract, upon satisfaction of the foregoing contingency.

BONNIE PANNELL, Chair

ATTEST:

MICHAEL R. WILEY, Secretary

By:

Cindy Brooks, Assistant Secretary

RESOLUTION NO. 12-06-

Adopted by the Board of Directors of the Sacramento Regional Transit District on this date:

# <u>June 11, 2012</u>

## REJECTING ALL PROPOSALS FOR UTDC LIGHT RAIL VEHICLE REFURBISHMENT

BE IT HEREBY RESOLVED BY THE BOARD OF DIRECTORS OF THE SACRAMENTO REGIONAL TRANSIT DISTRICT AS FOLLOWS:

THAT, the proposals received in response to RT Request for Proposals for UTDC Light Rail Vehicle Refurbishment (RFP NO. 2010043) are hereby rejected.

BONNIE PANNELL, Chair

ATTEST:

MICHAEL R. WILEY, Secretary

By:

Cindy Brooks, Assistant Secretary