



**TORONTO TRANSIT COMMISSION
REQUEST FOR BIDS
FOR**

**SUPPLY OF VOCATIONAL TRUCK WITH WORK BODY AND
VERTICAL AERIAL PLATFORM
BID NO. P73SJ23287**

**CLOSING: AS SET OUT IN SUB-ITEM 1.3 OF
SECTION 00 21 00**

BID SUBMISSION TO:

TTC's Bonfire Public Portal

<https://ttc.bonfirehub.ca/projects/69723/details>

October, 2023

Toronto Transit Commission

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1 SPECIAL INSTRUCTIONS

- 1.1 This Request for Bids (RFB) is issued by the Toronto Transit Commission (TTC).
- 1.2 Any subsequent Contract will be between the TTC and the successful Bidder.
- 1.3 **Closing:** Tuesday, October 31, 2023 by 1:59:59 p.m. (1 second before 2:00 p.m.) Toronto time through the use of TTC's Bonfire Public Portal (Bonfire) by uploading the submission at <https://ttc.bonfirehub.ca/projects/69723/details>
- 1.4 **Procurement and Contract Specialist:** Stephanie Song at Email: Danping.Song@ttc.ca
- 1.5 **On-Site Visit**

The TTC will conduct a non-mandatory site on-visit on Thursday, October 12, 2023 at 1:00 p.m. (Toronto Time) located at 391 Alliance Ave, York, ON, M6N 2J1.

The purpose of this meeting is to permit prospective Bidder representatives an opportunity to site visit and examine the existing flatbed trucks that are currently in use by the TTC.

Bidder representative(s) shall:

- Wear the following safety apparel consisting of safety shoes, safety glasses and High Visibility vest (if available)
- Assemble at main office building entrance

1.6 Minutes for On-Site Visit Meeting:

The minutes of the site visit meeting will be available via Bonfire for all listed bidders.

1.7 Submission Requirements:

NOTE: Bidder's submission is to be on forms contained within this RFP document. The Bidder should not submit company brochures. Failure to adhere to these requirements may result in the Bidder's submission not being evaluated further.

Bidders should note the type and the number of files allowed for submission. The maximum upload file size is 1000MB. Uploading large documents may take significant time, depending on the file size and internet connection speed. It is strongly recommended that Bidders allow sufficient time before the submission deadline to upload documents and finalize their submissions. The documents should not be embed within the uploaded files, as they will not be accessible or evaluated.

Every effort has been made to be as inclusive as possible. Where specific requirements are defined it is because those are minimums that must be met in order to function safely or in accordance with TTC guidelines.

- 1.71 The Bidder shall complete the Bid Form, included as Section 00 41 00. In addition to the Bid Form, the Bidder is requested to submit the following information with its Bid and should adhere to the number of pages indicated for each Appendix as noted below and such information shall be structured and organized in accordance with the major categories as indicated below for ease of reference by the TTC.

1.7.2 Pass/Fail Submission Requirements

The Bidder shall complete and submit the Appendix A – Mandatory Technical Requirements. Failure to complete the Appendix A will deem the Bid non-compliant and will not be considered further.

1.7.3 Pricing Information

In accordance with sub-item 1.9 - BID EVALUATION AND ACCEPTANCE of Section 00 21 00, only the Pricing Information from the shortlisted Bidders following the evaluation of the pass/fail submission requirements will be considered.

The Bidder shall complete and submit the following with its Bid Form:

- .1 The completed "Price Schedule" attached as Appendix B to the Bid Form – Section 00 41 00.

The Bidder should complete and submit the following with its Bid Form:

- .2 "Optional and Alternative Pricing" attached as Appendix C to the Bid Form – Section 00 41 00

Unless specifically shown to the contrary, Bid unit prices shall be considered firm, in Canadian Funds, and must include any and all expenses that may be anticipated and incurred by the Bidder while providing the Work as specified in this RFB. No additional costs will be considered.

If the Bidder is not licensed to collect the applicable Harmonized Sales Tax, the Bidder must explicitly state this on Appendix 1 - Registration to Collect HST in Canada Declaration Form and the TTC will make an assessment of the taxes applicable and add the assessed amount to the Bidder's total evaluated bid price for evaluation purposes and if the Bidder is awarded the Contract, the appropriate amount of taxes applicable will be determined and remitted by the TTC to the appropriate governmental agency.

The Bidder shall submit unit prices for all items listed for the configuration in the Price Schedule, based on the estimated quantities indicated therein.

Quantities of materials stated in the Price Schedule are estimates only and should not be interpreted as indicating a minimum or maximum quantity. The quantities shall be used as a basis for comparison upon which the award of a contract will be made. These quantities are not guaranteed to be accurate and are furnished without any liability to the TTC whether decreased or increased.

The Bidder shall include in its Bid, extended prices based on the estimated quantities for items of Work shown in the Price Schedule. Such extended prices shall be the product of the unit prices multiplied by the estimated quantities. Payments shall be based on the actual Work required and performed, at the Contract unit prices, subject to the terms and conditions of the Contract Documents.

The unit prices shall be deemed to include all other duties applicable under relevant law; allowances, freight, and including fees for applicable Permits, approvals and notices, with the exception of Permits identified in the Specifications as being supplied by TTC, all costs and risks associated with or arising out of COVID-19 as more particularly set out in the Supplementary Condition entitled COVID-19 PANDEMIC COSTS.

For greater certainty, the Bidder shall be responsible for, and bear all risks of, at the Bidder's expense, all services, Products, equipment and any other expense required as a result of COVID-19 to perform the Work to mitigate risk to, or maintain, the health and safety of the Site, including, but not limited to, delays, coordination, productivity impacts, personal protective equipment, testing, site cleaning products and services, additional facilities required to maintain social/physical distancing requirements, and any other services, Products and equipment required by any government, public authority or public health authority order, recommendation, direction, emergency regulation, Applicable Law, or that the Bidder, and/or TTC, deem necessary for the period from Notification of Award to Contract Completion.

1.7.4 Joint Ventures (Complete Appendix D – Joint Ventures, if applicable)

If a joint venture is proposed:

- .1 The joint venture shall state in its Bid the joint venture arrangements that form the basis on which the joint venture plans to carry out its obligations under the Contract. The joint venture shall not change its joint venture arrangement without the prior written approval of the TTC.
- .2 One of the joint venture participants shall be nominated as being in charge during the Bid process and, in the event of a successful Bid, during finalization of the Contract (Participant in Charge). The Participant in Charge shall be authorized by the other joint venture participants to incur liabilities and receive instructions for and on behalf of any and all participants of the joint venture. Each joint venture participant shall demonstrate its authorization of the Participant in Charge by submitting with their Bid a power of attorney, or similar document, signed by a legally authorized representative of the joint venture participant.
- .3 All participants of the joint venture shall be legally liable, jointly and severally, during the Bid process and for carrying out the obligations pursuant to the Contract terms and conditions.

1.7.5 Appendix E – Registration to Collect HST in Canada Declaration Form

The Bidder shall complete and submit the Appendix E – Registration to Collect HST in Canada Declaration Form with its Bid Form.

1.7.6 Section 00 45 13 – List of Similar Contracts Awarded or Completed (Within Last 5 Years)

The Bidder should complete and submit the 00 45 13 – List of Similar Contracts Awarded or Completed (Within Last 5 Years) with its Bid Form.

1.8 Rectification Period

1.8.1 Bidders will be given an opportunity, during the Rectification Period, to rectify deficiencies in their submissions solely in order to fill any minor gaps identified in the mandatory Submission Requirements, subject to sub-item 1.8.2. The Rectification Period applicable to the Bidder will begin to run from the date and time that TTC issues its rectification notice to the Bidder. TTC reserves the right to determine, in its sole discretion, the means and process by which Bidders may submit items for the purposes of such rectification.

1.8.2 The following mandatory Submission Requirements are not subject to rectification:

- .1 Appendix B of Section 00 41 00 – Price Schedule;

In the case of pricing indicated in the above listed forms, any non-numerical mark entered in the mandatory pricing field, including “-”, “N/C”, or “N/A”, shall be deemed “0”. Where a zero (0) is entered or deemed, it shall be interpreted as the Bidder agreeing to provide the specified good or service to the TTC at no charge, or the cost of such good or service is included elsewhere in the Total Evaluated Bid Price.

Any blank left in a mandatory pricing field will result in the bid being deemed incomplete and subject to disqualification under the Bid Irregularities, in the sole discretion of TTC.

1.9 Bid Evaluation and Acceptance

1.9.1 A Bid may not be withdrawn after the Bid Closing, until expiration of the required Bid validity specified in item 9 - VALIDITY of Section 00 41 00.

1.9.2 Subject to sub-item 1.9.7 of the Instructions to Bidders – Section 00 21 00, the evaluation of Bid submissions shall be based on any or all of the following:

- .1 The information submitted by the Bidders as requested in sub-item 1.7 - SUBMISSION REQUIREMENTS of Section 00 21 00 and completeness thereof.
- .2 The Bidder's and each proposed Subcontractor's, performance rating with respect to previous TTC contracts (see item 13 - WORK PERFORMANCE of Section 00 21 00).
- .3 The Bidder's and each proposed Subcontractor's performance on current on-going work assignments with the TTC.
- .4 Compliance with all mandatory submission requirements, if applicable, including the requirements identified as pass/fail. If the Bidder fails on any of the mandatory submission requirements, their Bid shall be deemed to be not acceptable and will not be evaluated any further.
- .5 The TTC will review and evaluate the pass/fail submission requirements of all Bids received to establish a list of Bidders who are considered qualified for further evaluation.
- .6 Upon completion of the evaluation of the pass/fail submission requirements, only then will the "Pricing Information" be considered as a factor in the evaluation and selection process. The pricing will be opened only for those Bids considered qualified.
 - .1 The pricing information for each such Bid will then be evaluated to determine a Total Evaluated Bid Price as follows:

Prices shall be evaluated on the basis of the base unit prices identified in Section 00 41 00 Appendix B – Price Schedule, which include a base vehicle with respective estimated quantities. The unit prices shall be multiplied by the estimated annual quantities for each item. The extended amounts will be added to determine the Total Evaluated Bid Price, exclusive of taxes in accordance with item 9. The basis of award will be the lowest Total Evaluated Bid Price of all qualified Bids.
 - .2 The award of any contract shall be subject to satisfactory reference checks, if applicable and the absence of any actual or potential conflict of interest.
- .7 Items included in Appendix C – Option and Alternative Pricing will not be included in the evaluation. The TTC reserves the right to accept or not accept any option or alternative items from the recommended Bidder(s).
- .8 Any errors, inconsistencies or ambiguities in the Bid submission shall be subject to the interpretation of the TTC. Each and every alteration or erasure made in the Bid shall be initialed by an authorized representative of the Bidder. If applicable, whenever the amount tendered in a price schedule for an item does not agree with the extension of a Bid quantity and the tendered unit price, the unit price shall govern and the amount and the Total Evaluated Bid Price shall be corrected accordingly. Mathematical discrepancies will be corrected by the TTC by appropriate means to arrive at the correct Total Evaluated Bid Price. If applicable, where a Bidder has made an error in transferring an amount from one part of the Bid to another, the amount shown before transfer shall, subject to any corrections as provided above, be taken to be correct, and the amount shown after transfer and the total evaluated bid price shall be corrected accordingly.

In the event that the TTC receives two or more Bids identical in price, the TTC reserves the right to select one of the tied Bids by way of a coin toss (in the case of two identical bids), or lottery (in the case of more than two identical bids).

- 1.9.3 The Bidder shall be deemed to have accepted all terms and conditions of the Bid Documents unless explicitly excepted or qualified in its Bid. Any exception as defined in the TTC's Procurement Policy, to the Bid Documents requirements, may render the Bid unacceptable. The TTC's Procurement Policy and list of common "Bid Irregularities" are located on the TTC Web site at: <https://www.ttc.ca/doing-business-with-the-ttc/Procurement-and-Category->

Management/Current-Tenders. At its discretion the TTC reserves the sole right to clarify the Bid of a Bidder in order to satisfy itself as to the intent of the Bid.

- 1.9.4 For purposes of this RFB, “comply”, “complies” and “compliance” mean that the Bid conforms to the requirements of the Bid Documents without material deviation. A “material deviation” in a Bid is any failure to comply with a Bid Document requirement that, in the sole discretion or opinion of the TTC;
- (a) impedes, in any material way, the ability of the TTC to evaluate the Bid;
 - (b) affects the TTC’s ability to enforce the Bidder’s obligations pursuant to the Bid Documents; or
 - (c) constitutes an attempt by the Bidder to revise the rights or obligations under the Bid Documents in a way not permitted by the RFB.
- 1.9.5 The TTC's right to accept or reject any Bid including the lowest total evaluated bid price, whether or not it complies with the Bid Documents, or to cancel this Request for Bid at any time prior to the Notification of Award, is expressly reserved without liability to the TTC. The Bidder shall bear all costs and expenses incurred by itself relating to any aspect of its participation in this Request for Bid, including but not limited to, the Bidder’s involvement in:
- the preparation, presentation and submission of its Bid;
 - attendance at a Pre-Bid Meeting or any other meeting with the TTC, if applicable;
 - due diligence and any information gathering processes.
- 1.9.6 The TTC is under no obligation to the Bidders to accept any Bid from Bidders that have an unsatisfactory “Contractor Performance Review” rating or which had contracts with the TTC which were terminated for default or from Bidders that have previously been given a “Notification of Award” of contract by the TTC and defaulted in proceeding with the work of the contract; or any Bidder that has submitted false or misleading disclosure of Lobbying; or non-disclosure of Lobbying by the Bidder. The TTC also is under no obligation to accept any Bid with whom an officer or director of that Bidder has been an officer or director of a company/consultant that has previously received an unsatisfactory performance rating, or has had a TTC contract that was terminated for default or has been given a “Notification of Award” of contract by the TTC and defaulted in proceeding with the work of the contract.
- 1.9.7 Bidders are strongly encouraged to provide all information requested in sub-item 1.7 - SUBMISSION REQUIREMENTS, of Section 00 21 00. Failure to provide the requested information could affect the overall evaluation of the Bid.
- 1.9.8 By submitting a Bid, a Bidder warrants that to its best knowledge and belief, having made all reasonable inquiries with respect thereto, no actual or potential conflict of interest exists with respect to the submission of its Bid or performance of the contemplated contract other than those disclosed in the Bid Form. In the event that the TTC discovers a Bidder’s failure to disclose all actual or potential conflicts of interest, the TTC may disqualify the Bidder or terminate any contract awarded to that Bidder under this RFB.
- 1.9.9 The Bidder is advised that the TTC’s evaluation team for this RFB, may contain consultant staff members from outside consulting firms under contract to the TTC.
- 1.9.10 The Bidder understands and agrees that the TTC may, if deemed necessary, verify any information provided in the Bid. In addition to the references provided by the Bidder, the TTC reserves the right to use its own experiences with the Bidder in previous contracts to evaluate the Bidder’s performance.
- 1.9.11 If the Bidder is a joint venture, each joint venture participant shall provide a power of attorney, or similar document, signed by a legally authorized representative of the joint venture participant

stating that the Participant in Charge is authorized by the joint venture participant to incur liabilities and receive instructions for and on behalf of the joint venture participant.

1.10 Award of Contract

- 1.10.1 Subject to item 12, the successful Bidders will be awarded a Contract with a Contract Price based on the Total Evaluated Bid Price plus optional equipment to be exercised at time of award. It should also be noted that the appropriate amount of applicable taxes will be determined by the TTC and added to the Contract Price for any successful Bidders that are licensed to collect taxes in Canada. Thereafter, the successful Bidders will be authorized to proceed with the Work in Tasks, on an upset limit price basis or fixed price basis, as set out in a "Release", all in accordance with the Supplementary Condition entitled Authorization to Proceed.

1.11 Additional Information Available to Bidders: Not Applicable

2 DEFINITIONS AND INFORMATION

2.1 Additional Definitions

The following additional definitions shall apply to all Bid Documents and references to the singular throughout the Bid Documents shall be considered to include the plural and vice versa as the context requires.

All capitalized terms unless otherwise defined in these Instructions to Bidders shall have the meaning as set out in the General Conditions and/or Supplementary Conditions of the Bid Documents.

“Addendum” or “Addenda” means any documents as defined in item 6;

“Bid Documents” means the Instructions to Bidders, Bid Form and Appendices, General Conditions, Supplementary Conditions, Specifications, all Contract Drawings, any Addenda, and any other documents identified as being Additional Submission Requirements in sub-item 1.7;

“Bonfire Public Portal” means <https://ttc.bonfirehub.ca> a web based electronic tendering system.

“Business Day” means any day other than a Saturday, Sunday or public holiday observed by the City of Toronto and/or the Province of Ontario;

“Closing” means, subject to any amendment by way of Addendum, the closing date and time specified in sub-item 1.3;

“Procurement and Contract Specialist” means the person identified as such from time to time by the TTC;

“Instructions” means these Instructions to Bidders;

“Rectification Period” means the period of not less than two Business Days and not more than such number of Business Days permitted by TTC in its sole discretion during which a Bidder is permitted to rectify its submission to satisfy the mandatory Submission Requirements.

“Request for Bids” or “RFB” means the request for Bid solicitations to which the Bidder submitted a Bid;

“Submission Requirements” means the submission requirements set out in these Instructions, and in particular the requirements set out in sub-item 1.7;

2.2 Information from the TTC

.1 This RFB is available through TTC’s Bonfire Public Portal (<https://ttc.bonfirehub.ca/projects/69723/details>).

.2 It is the responsibility of the Bidder to carefully examine the Bid Documents, that it has received all issued communications from the TTC and to seek clarification from the Procurement and Contract Specialist on any matter it considers to be unclear. The TTC shall not be responsible for any misunderstanding on the part of a Bidder concerning the RFB, the Bid Documents or the process to be followed by the TTC. Each Bidder is requested to report any errors, omissions or ambiguities in the Bid Documents to the TTC. If a Bidder has a question or wishes to seek clarification, the Bidder shall direct questions or seek additional information or clarifications from the Procurement and Contract Specialist as shown in sub-item 1.4 or their designate.

.3 Where these Instructions indicate that particular information is to be provided on or in a standard form document provided by the TTC to Bidders as part of the Bid Documents, that information shall be set out and provided on that form.

.4 The Bidder is solely responsible for ensuring that its Bid is complete and correct and for ensuring that it is submitted to the address specified below on or before the Closing. Failure to complete the

documents fully, or to provide all required documents and other information, or to comply with the Instructions to Bidders, may result in a Bid being rejected or in the Bidder being considered non-compliant.

- .6 The Bidder shall complete, execute and submit the Bid Form, including all required pricing information, together with the completed documents as listed in the item 1.7.
- .7 All such information shall be on, and in accordance with, forms supplied by the TTC. All responses are to be submitted to TTC through the use of TTC's Bonfire Public Portal at <https://ttc.bonfirehub.ca/projects/69723/details>.

Bidders shall be solely responsible for the delivery of their Bids in the manner and time prescribed.

Questions concerning submitting through Bonfire should be addressed to Support@GoBonfire.com for technical questions related to the submission. Bidders can also visit the help forum at <https://bonfirehub.zendesk.com/hc>.

Prior to the Closing, a Bidder may withdraw or revise the submission following the steps described under the help forum at <https://bonfirehub.zendesk.com/hc>.

Bids must be received before the Closing. Subject to sub-item 2.2, a Bid may not be otherwise withdrawn or amended. No Bid may be withdrawn after closing of the RFB.

- .8 Bids transmitted by facsimile or sent by any other electronic means shall not be considered. Notwithstanding anything to the contrary contained in any applicable statute relating to electronic documents transactions, any notice, submission, statement, or other instrument provided in respect of the RFB may not be validly delivered by way of electronic communication, unless otherwise provided for in this RFB.
- .9 Prior to the Closing, a Bidder may:
 - .1 Withdraw its Bid by deleting its entire bid on Bonfire prior to the Closing; or
 - .2 Submit a revised Bid prior to the Closing in the same manner specified in Paragraph 2.2.
 - .3 Subject to Paragraph 2.2, a Bid may not be otherwise withdrawn or amended. No Bid may be withdrawn after Closing of the RFB.
 - .4 Any Bids submitted later than the Closing shall not be accepted by Bonfire.

3 BID CLOSING

- 3.1 Within two Business Days following the Closing, the names of Bidders that submitted for this RFB will be published on Bonfire Public Portal.

4 BID INQUIRIES

- 4.1 All inquiries or requests for information during the RFB and Bid evaluation stages until execution of Contract must be in writing, with the exception of questions raised during a pre-Bid meeting/Site tour, if applicable, and must be directed only to the Procurement and Contract Specialist as shown in sub-item 1.4. All inquiries or requests for information during the RFB must be sent via "https://ttc.bonfirehub.ca/projects/69723/details - Messages – Opportunity Q&A" only.

All communications between the Bidders and the TTC shall be in the English language and said communication shall include, but not be limited to, all documents, drawings and submissions requested under this RFB.

- 4.2 Questions and answers during the RFB period will be posted on Bonfire for information purposes.
- 4.3 This RFB shall only be amended by an Addendum, issued in accordance with these Instructions.

- 4.4 TTC shall attempt to respond to all requests for information received no less than five Business Days prior to the Closing. No assurances are given by TTC that responses will be made to inquiries received after that time.

5 COMMUNICATION RESTRICTIONS

5.1 Prohibited Contacts and Lobbying Prohibition

A Bidder, Bidder's team members and all of the Bidder's respective advisors, employees and representatives are prohibited from engaging in any form of political or other lobbying, of any kind whatsoever, to influence the outcome of the RFB process.

Without limiting the generality of the RFB, no Bidder, Bidder's team members or the Bidder's respective advisors, employees and representatives shall contact or attempt to contact either directly or indirectly, at any time during the RFB process, any of the following persons or organizations on matters related to the RFB process, the RFB Documents or the Bids, with the exception of the individual named in sub-item 1.4 or their designate:

- (a) any employee or advisor to the TTC;
- (b) any member of the TTC;
- (c) any member of the City of Toronto Council.

If a Bidder or a Bidder's team member or any of their respective advisors, employees or representatives, in the opinion of the TTC, contravenes this item 5, the TTC may at its sole discretion disqualify the Bidder(s) from further consideration for award.

Anyone who "lobbies" (as defined in the City of Toronto Municipal Code, Chapter 140) or is expected to lobby a Member of the TTC (i.e. Commissioner), their staff, or any TTC officer or employee must comply with the requirements as set out in the City of Toronto Municipal Code, Chapter 140 – Lobbying. For the purposes of Chapter 140 of the City of Toronto Municipal Code, the TTC is a "local board (restricted definition)". For further information please see City of Toronto Web site at www.toronto.ca/lobbying.

Failure to comply with the requirements of Chapter 140 of the City of Toronto Municipal Code, may, at the TTC's sole discretion, be considered in the evaluation of the Bidder's current Bid or future bid submissions and award of the current or future contracts. The TTC reserves the right, at its sole discretion, to not award a contract to a Bidder who has failed to comply with the requirements of Chapter 140 of the City of Toronto Municipal Code.

5.2 Exception to sub-item 5.1

The individual named in sub-item 1.4 may, at his or her sole discretion, delegate any of his or her responsibilities as set out in this Bid Document. With the written approval from the individual named in sub-item 1.4 or their designate, the Bidder or any representative of the Bidder may have contact and may communicate with any individual as set out in 4.1(a) – (c) to the extent permitted in the written approval.

5.3 Media Releases, Public Disclosures and Public Announcements

A Bidder shall not, and shall ensure that its advisors, employees, or representatives do not, issue or disseminate any media release, public announcement or public disclosure (whether for publication in the press on the radio, television, internet, or any other medium) that relates to the RFB process, the RFB, the Bid Documents or any matters related thereto, without the prior written consent of the TTC.

A Bidder, Bidder's team members and all of the Bidder's respective advisors, employees and representatives shall not make any public comment, respond to questions in a public forum, or carry out any activities to either criticize another Bidder or Bid or to publicly promote or advertise

its own qualifications, interest in or participation in the RFB (procurement) process without the TTC's prior written consent, which consent may be withheld in the TTC's sole discretion. Notwithstanding this item, the Bidder, Bidder's team members and all of the Bidder's respective advisors, employees and representatives are permitted to state publicly that it/they are participating in the RFB process.

For the purposes of greater clarity, this item does not prohibit disclosures necessary to permit the Bidder to discuss the RFB with prospective subcontractors' participation in the RFB.

5.4 Restrictions on Communications Between Bidders – No Collusion

A Bidder shall not discuss or communicate, directly or indirectly, with any other Bidder, any information whatsoever regarding the preparation of its own Bid or the Bid of other Bidders in a fashion that would contravene applicable law. Bidders shall prepare and submit Bids independently and without any connection, knowledge, comparison of information or arrangements, direct or indirect, with any other Bidder. This obligation extends to all team members of a Bidder and all of the Bidder's respective advisors, employees and representatives.

6 ADDENDA

6.1 TTC may, in its sole discretion, amend or supplement the Bid Documents prior to the Closing by the issuance of an Addendum in accordance with this item. No statement, whether oral or written, made by TTC or its advisors, employees (whether orally or in writing) shall be deemed or construed to add to, subtract from or otherwise amend the Bid Documents unless issued as an Addendum in accordance with this item.

6.2 During the Bid period, any changes to the Bid Documents will be made by the issuance of an Addendum, which will be transmitted via Bonfire to the potential Bidders. The onus is on the Bidder to ensure the Bidder has received all Addenda related to this RFP.

6.3 A written Addendum will be issued in the form of the complete replacement of the entire affected "Section(s)", which is to be inserted in the Bid Documents, discarding the replaced "Section(s)". Each page is marked at the bottom with the Addendum number.

- .1 Revisions for modified or added text are indicated by the use of bold italicized attributes.
- .2 New paragraphs are marked by the use of bold italicized attributes for the entire paragraph. Subsequent paragraphs that become renumbered are not highlighted, bolded or italicized.
- .3 Revisions for deleting the text of an entire Article or an entire Part, Paragraph and/or Subparagraph are indicated by inserting the bracketed word "(Deleted)" in bold italicized attributes adjacent to the Article, Paragraph and/or Subparagraph number or at the beginning of the deleted Article, Paragraph and/or Subparagraph.
- .4 Deleted words in a sentence are indicated by highlighting the entire revised sentence in bold italicized attributes.
- .5 Deleted sentences in a Paragraph and/or Subparagraph will be indicated by highlighting of the entire revised Paragraph and/or Subparagraph in bold italicized attributes.
- .6 If a subsequent Addendum affects a page that has previously been revised, the bold and italicized attributes are removed from the previously changed text and only the modified text of the latest Addendum will be highlighted by the use of bold italicized attributes and only the latest Addendum number will be marked on the bottom of the Section.
- .7 A new added Section will be marked by the word "NEW" in the centre of the Section header on the same line as the section number, and the header will be in bold italicized attributes.

- .8 A newly added Appendix will be marked by the word "NEW" in the centre of the top of each page.
- .9 A deleted Section will have all of its text in the body of the Section deleted, and will be marked by the bracketed word "(DELETED)" in bold italicized attributes centred directly below the header. The header identifying the Section will remain.
- .10 A deleted Appendix will be marked by the bracketed word "(DELETED)" in bold italicized attributes as a watermark diagonally across every page.

7 INVESTIGATION BY THE BIDDER

- 7.1 The Bidder shall examine all of the documents included in the Bid Documents, exercising due diligence, and the skill and professional judgement of a reasonable professional in the Bidder's line of business. This duty extends to all Specifications, maps, plans and data referred to in the Bid Documents.
- 7.2 Should the Bidder find discrepancies in, or omissions from, the Drawings, Specifications, or other RFB documents, or should be in doubt as to their meaning, the Bidder shall notify the named Procurement and Contract Specialist immediately in writing, in accordance with item 1.4.
- 7.3 If applicable, the Bidder shall be responsible for examining the Site, the premises adjacent thereto and the access to the Site. Bidders are responsible for all:
 - .1 Patent defects or other conditions of the Site;
 - .2 Latent defects or other conditions that would have been discovered by a reasonable and prudent Contractor through the exercise of due diligence in the course of preparing a Bid; and
 - .3 Latent defects or other conditions expressly disclosed, or reasonably identifiable from the information that is disclosed.
- 7.4 No changes to the Work or extensions to milestone dates shall be granted where delay or additional costs results from a failure to exercise due diligence as provided in item 7.1.
- 7.5 The Bidder shall make all investigations that a reasonable and prudent Contractor would consider necessary or advisable when submitting a Bid, to inform itself thoroughly as to the character and magnitude of the Work, the facilities for delivering, placing and operating the necessary machinery and equipment and for delivering and handling Products and equipment at the Site.
- 7.6 The Bidder shall be responsible for informing itself as to the conditions which may prevail at the juncture of the Contract with all adjacent Contracts that are identified as adjacent Works in the Bid Documents.
- 7.7 Subject to O. Reg. 213/91 under the Occupational Health and Safety Act, where the Contract is awarded to the Bidder, it shall be a term of the Contract that the Bidder shall provide reasonable accommodation to Other Contractors to TTC who are performing work under adjacent contracts, including any adjacent contracts entered into following the award of the Contract to which this Section relates.

8 TTC APPROVED EQUIVALENT

- 8.1 All bids must conform to the Specifications herein, however, substitutions of products may be considered during Pre-Bid period for TTC review provided that:
 - Complete Product information is submitted for the TTC review and approval.
 - All data relating to changes in the Contract Schedule, if any, and relating to other Work have been submitted.

- The same warranty or greater is given for the substitution as for the original Product specified.

8.2 All bids must conform to the Specifications herein, however, substitutions to methods or processes described in the Specifications or Contract Drawings may be proposed for TTC review provided that:

- Allow a minimum of fourteen (14) Days for TTC to review the substitution request following the receipt of the information required. Bidder will be solely responsible for delays arising as a result of the review by TTC of any request for substitution.

8.3 TTC may reject any request for substitution at any time in the process if, in the opinion of TTC, the proposed substitution may:

- Require substantial revision to the Specifications and/or Contract Drawings.
- Not offer any benefit to TTC.

9 BID PRICING

9.1 The Total Evaluated Bid Price shall be considered firm, in Canadian funds, and inclusive of all applicable duties, brokerage charges, Insurance, freight FOB: DDP (TTC Site), and all other costs, and fees for applicable permits, approvals and notices, and all other costs excluding applicable taxes.

9.2 Unless specifically shown to the contrary, the Total Evaluated Bid Price shall be deemed to be inclusive of all customs duties either in force or announced prior to the Bid closing, even if the effective date is subsequent to the Bid closing.

9.3 If the bidder is not licensed to collect the applicable Harmonized Sales Tax (HST) it must explicitly identify this on the Bid Form. The TTC will make an assessment of the applicable taxes and add the assessed amount to the Bidder's Total Evaluated Bid Price for Contract award purposes. The appropriate amount of applicable taxes will be determined and remitted by the TTC to the appropriate governmental agency for Bidders that are not licenced to collect taxes in Canada.

10 LIST OF BIDDERS

10.1 A list of Bidders who have been issued Bid Documents is updated during the Bid period and is available on Bonfire.

11 FREEDOM OF INFORMATION & PROTECTION OF PRIVACY ACT

11.1 A Bid submitted to TTC and all other correspondence, documents and information provided to the TTC by any Bidder in connection with, or arising out of this RFB, once reviewed by the TTC, shall become a record of the TTC and shall become subject to the Municipal Freedom of Information and Protection of Privacy Act, and may be released, pursuant to that Act or as otherwise required at law.

11.2 A Bidder's name and price may, at the sole discretion of the TTC, be made public.

11.3 Bidders may identify in their Bid any information that they consider to be scientific, technical, commercial, proprietary or similar confidential information. Should a Bidder identify information in accordance with this sub-item 11.3, such identification shall not be determinative and the Bidder acknowledges that such identification is subject to the requirements of the Municipal Freedom of Information and Protection of Privacy Act.

12 EXECUTION AND SUBMISSION OF CONTRACT DOCUMENTS

12.1 If its Bid is accepted by the TTC, the successful Bidder shall sign and return the Purchase Order Acknowledgement.

13 WORK PERFORMANCE

- 13.1 The Commission reserves the right to reject any Bid submitted by a company with an unsatisfactory performance rating. The Commission also reserves the right to restrict a company with whom an officer or director of that company has, in the past, been associated, in any way, with a company that has previously received an unsatisfactory performance rating from submitting a Bid on any Commission contract and to reject any Bid that the company may submit.

14 PROHIBITION AGAINST GRATUITIES

- 14.1 No Bidder and no employee, agent or representative of the Bidder, may offer or give any gratuity in the form of entertainment, participation in social events, gifts or otherwise to any member of the City of Toronto Council or Commissioner of the Toronto Transit Commission, or any officer or employee of the Toronto Transit Commission in connection with or arising from this RFB, whether for the purpose of securing a contract or seeking favourable treatment in respect to the award of the contract.
- 14.2 If the TTC determines that sub-item 14.1 has been breached by or with respect to a Bidder, the TTC may exclude its Bid from consideration, or if a contract has already been entered into, may terminate it without incurring any liability.

15 INSURANCE REQUIREMENTS

- 15.1 The successful Bidder shall be required to comply with the requirements as specified in the Supplementary Condition entitled INSURANCE REQUIREMENTS, Section 00 73 00 and provide the evidence of insurance as specified in the Supplementary Condition entitled EVIDENCE OF INSURANCE, Section 00 73 00.

END OF SECTION

<u>ITEM NO.</u>	<u>TITLE</u>	<u>PAGE NO.</u>
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2	OFFER	1
3	STATEMENT OF COMPLIANCE	1
4	INSURANCE REQUIREMENTS	1
5	TERMS OF PAYMENT	2
6	AUTHORIZATION AND CONSENT	2
7	ADDENDA	2
8	SUBMISSION REQUIREMENTS	2
9	VALIDITY	2
10	SIGNATURE	2

APPENDICES

APPENDIX A – MANDATORY TECHNICAL REQUIREMENTS

APPENDIX B – PRICE SCHEDULE

APPENDIX C – OPTIONAL AND ALTERNATIVE PRICING

APPENDIX D - JOINT VENTURES

APPENDIX E - REGISTRATION TO COLLECT HST IN CANADA DECLARATION FORM

TITLE: Supply of Vocational Truck with Work Body and Vertical Aerial Platform

BID NO.: P73SJ23287

TO: Toronto Transit Commission

1 DECLARATION

I/We, _____

(Legal Corporate Name of Bidder)

having an office at _____

(Office Address)

(Telephone No. Including Area Code) (Bidder's Email Address and Signatory Email Address)

do hereby declare as follows:

- .1 That we have carefully examined the Bid Documents, and do hereby accept the same as part and parcel of the Contract;
- .2 That the shareholders or partners of the above company are the only persons interested in the Bid, and no other person has any interest in the Bid, or in the Contract proposed to be taken;
- .3 That our Bid is made without any knowledge, comparison of figures, or arrangements with any other party or parties making a Bid for the same work and is, in all respects, fair and made without collusion or fraud;
- .4 That no member of the City of Toronto Council or Commissioner of the Toronto Transit Commission, or any officer or employee of the City of Toronto or of the Toronto Transit Commission is or shall become interested, directly or indirectly, as a contracting party, partner or otherwise in, or in the performance of the Contract or in the supplies, work or business to which it relates, or in any portion of the profits thereof, or of any such supplies to be used therein, or in any of the monies to be derived therefrom;
- .5 That we have not violated item 5 – COMMUNICATION RESTRICTIONS of Section 00 21 00.

2 OFFER

- .1 We do hereby tender and offer to supply and perform the Work as specified within the Bid Documents, at and for the Total Evaluated Bid Price in Canadian funds, as detailed in Appendix B – Price Schedule and Appendix C – Optional and Alternative Pricing.

3 STATEMENT OF COMPLIANCE

- .1 We agree to accept and will comply with all terms and conditions of the Bid Documents.

4 INSURANCE REQUIREMENTS

- 4.1 We hereby acknowledge and agree that should our Bid be accepted by the TTC, we shall:
 - .1 Submit the documentation specified the Supplementary Condition entitled EVIDENCE OF INSURANCE, Section 00 73 00 – Supplementary Conditions, in a form acceptable to the TTC; and

- .2 Be responsible for any delay to the schedule resulting from our failure to provide acceptable documentation within the time specified; and
- .3 Meet or exceed the liability limits required and comply with all other conditions specified in the Supplementary Condition entitled INSURANCE REQUIREMENTS, Section 00 73 00 – Supplementary Conditions.

5 TERMS OF PAYMENT

- 5.1 We agree that the Total Evaluated Bid Price is based upon the payment terms as stated in the Supplementary Condition entitled TERMS OF PAYMENT, Section 00 73 00.

6 AUTHORIZATION AND CONSENT

- 6.1 We agree and consent to the TTC, at its sole discretion, using any information as set out in the Bid to conduct reference checks with respect to work previously performed and to conduct further investigations with respect to any information provided in the Bid.

7 ADDENDA

- 7.1 We agree that this Bid incorporates all Addenda issued by the TTC during the Request for Bid period.

8 SUBMISSION REQUIREMENTS

- 8.1 We confirm that in accordance with item 1.7 – SUBMISSION REQUIREMENTS of Section 00 21 00 attached to this Bid Form are all the requested Bid submission requirements and form part of our Bid.

9 VALIDITY

- 9.1 We agree that this Bid is valid for acceptance for a period of ninety (90) calendar days from the date of closing of Bids and that the TTC may at any time within the said period accept this Bid whether or not any other Bid has been previously accepted.

(OR)

Alternative Validity Date: We agree that this Bid is valid for acceptance up to and including _____ and that the TTC may at any time within the said period accept this Bid whether or not any other Bid has been previously accepted.

10 SIGNATURE

Dated this _____ day of _____, 2023.

Per: _____
(Signature)

Name: _____

Title: _____

I/We have authority to bind the Corporation.

END OF SECTION

SECTION 00 41 00 - APPENDIX A – Mandatory Technical Requirements

(Note: Information requested in sub-item 1.7.2 - Section 00 21 00 shall be summarized on this Appendix.)

Company Name: _____

The Bidder shall complete and submit Appendix A. Failure to complete Appendix A will deem the Bid non-compliant and will not be considered further.

1. Pass/Fail Technical Requirements

1.1 The Bidder shall complete by putting a checkmark in the box (v).

☐

By checking this box, the Bidder acknowledges and agrees that the Bidder has read and understands, and confirms meeting the requirements in Specification PB 2310.

2. Technical Requirements

2.1 The Bidder shall complete Chart 1 - Configuration by completing columns 2 to 5 (Make, Model, Year and Estimate Lead-Time) listed below.

	Make	Model	Year	Estimate Lead-Time from Notification of Award (in Weeks)
Proposed Unit				

Chart 1 – Configuration

END OF SECTION

Notes:

1. The Work shall be performed in accordance with the Contract Documents at the unit prices stated herein. The estimated quantities are provided for evaluation of the bids only, and billing will be based on the actual quantities at the unit price submitted. The TTC reserves the right to correct mathematical errors, inconsistencies or ambiguities in accordance with item 1.9 of Section 00 21 00 - Instructions to Bidders.
2. The Bidder must explicitly state on the Section 00 41 00 - Appendix E - Registration to Collect HST in Canada Declaration Form whether or not it is registered to collect the applicable Harmonized Sales Tax (HST). The TTC will make an assessment of the applicable taxes and add the assessed amount to the Bidder's Total Evaluated Bid Price for Contract award purposes. The appropriate amount of applicable taxes will be determined and remitted by the Commission to the appropriate governmental agency for Bidders that are not licenced to collect taxes in Canada.
3. In accordance with SC8 - Delivery and Shipping Instructions, the Contractor is responsible for customs clearance of any tools, materials, equipment or spare parts imported into Canada by it for use in performing the Work under the Contract. The Contractor is responsible for any customs duties, excise taxes and the Goods and Services Tax (GST) or Harmonized Sales Tax (HST), if applicable, assessed by the customs officials and payable to the Canada Border Services Agency.

Item No.	Description	Unit Price	Estimated Quantity	Extended Bid Price
1	Supply of Vocational Truck with Work Body and Vertical Aerial Platform			
	Note: Bid Unit Price for Vocational Truck with Work Body and Vertical Aerial Platform with Elevating Platform shall be inclusive of Air Conditioning Tax, Fuel Conservation Tax, levies, duties, surcharges, freight FOB Site and applicable manuals and all other costs.			
1.1	Base Vehicle - Supply of Vocational Truck with Work Body and Vertical Aerial Platform in accordance with the attached Specification PB 2310		2	\$ -
1.2	License Plate (minimum 12 months). HST NOT APPLICABLE		2	\$ -
Sub - Total Evaluated Bid Price (HST EXCL.)				\$ -
HST (13%) (item 1.1)				\$ -
Total Evaluated Bid Price (HST INCL.)				\$ -

The Work shall be performed in accordance with the Contract Documents at the unit prices stated herein.

NOTES:

- 1) The Commission will make an assessment of the applicable taxes and add the assessed amount to the Bidder's unit prices for Contract award purposes. The appropriate amount of applicable taxes will be determined and remitted by the Commission to the appropriate governmental agency for Bidders that are not licenced to collect taxes in Canada.
- 2) In accordance with SC8, the Contractor is responsible for customs clearance of any tools, materials, equipment or spare parts imported into Canada by it for use in performing the Work under the Contract. The Contractor is responsible for any customs duties, excise taxes and the Goods and Services Tax (GST) or Harmonized Sales Tax (HST), if applicable, assessed by the customs officials and payable to the Canada Border Services Agency.
- 3) Non-Mandatory Options do not affect the bid evaluation, and will not result in a non-compliant bid if not provided. The optional parameters described can be bid on at the bidder's discretion.
- 4) Bid Unit Price for Supply of Vocational Truck with Work Body and Vertical Aerial Platform shall be inclusive of Air Conditioning Tax, Fuel Conservation Tax, levies, duties, surcharges, freight FOB Site and applicable manuals and all other costs.

1.1 OPTION A - ADDITIONAL UNITS

Note:

The Bidder shall complete Section 1.1 Option A - Additional Units by selecting a "Yes" or "No" from the dropdown menu in the box.

By selecting the "Yes" dropdown menu box under the Option Years, the Bidder acknowledges and agrees that the Bidder has read and understands, and confirms the price adjustment for additional units in the option years shall be in accordance with the requirements as detailed in the Supplementary Conditions 22.

Description	Optional Year - Unit Price Indicate "Yes" or "No" from dropdown menu
Base Vehicle - Supply of Vocational Truck with Work Body and Vertical Aerial Platform in accordance with the attached Specification PB 2310	

2.1 OPTIONS FOR ALL TYPES OF VEHICLES

Please note Section 2.1 Options for All Types of Vehicles - Unit Price listed below will also be adjusted based on the details outlined in Supplementary Conditions 22.

OPTION	Specification PB2310 Sections	Specification Detail	Description	Unit Price (HST excluded)
1	11.5	Provide for installation of TTC Specific Decal Package		
2	12.1.3	Additional Textured Surfaces		
3	14.2	All-Wheel Drive		

4	14.3.18	Front Suspension		
5	14.3.22	Adjustable Suspension		
6	14.3.24	Wear Indication		
7	14.3.28	Tow Hooks Front		
8	14.3.29	Tow Hooks Rear		
10	14.3.31	Telematics		
11	15.11	Fuel/Water Separator- Sight Glass		
12	16.3	Automatically Select Neutral with Parking Brake		
13	17.28	Power Windows Front		
14	17.29	Power Windows Rear		
15	17.30	Remote Powered Locks		
16	17.34	Steering - Telescoping		
17	20.6.10.1	Checker Plate Floor		
18	20.6.13.1	Walkway –Non-Conductive Material		
20	21	AUXILIARY POWER SYSTEM should include: 1) Auxiliary Power System Batteries 2) Auxiliary Power System Inverter 3) Auxiliary Power System Charging 3.1) Auxiliary Batter Mounting (Provide Make & Model and Capacity)		
21	23.8.3.1.1	Rear amber/blue beacon on a separate switch		
24	24.12.3	Deck Matting		
25	24.12.8	Sliding Rail Section		
27	25.1	Integrated Wireless Remote		

3.1 LIST OF RECOMMENDED OPTIONAL OR ALTERNATIVE FEATURES				
<div><input type="checkbox"/> Check No Options or Alternatives offered.</div> <div>or</div> <div><input type="checkbox"/> Check We offer the folling and attach all pertinent information with the +/- COST DIFFERENCE TO BASE TOTAL EVALUATED BID PRICES STATED IN 00 41 00 Appendix B - Price Schedule</div>				
OPTION	Specification PB2310 Sections	Specification Detail	Description	Base (Net +/- cost difference, HST excluded)
19	20.6.21	Retaining Boards Alternative Material		
22	24.3	Alternate Aerial Device		
23	24.10.1.1	Non-Continuous Rotation		
26	24.13.8	Alternative "Controls"		

SECTION 00 41 00 - APPENDIX D – JOINT VENTURES (if applicable)

(Note: Information requested in sub-item 1.7.4 - Section 00 21 00 shall be summarized on this Appendix.)

Company Name: _____
Bid No. **P73SJ23287**
Title: **Supply of Vocational Truck with Work Body and Vertical Aerial Platform**

NAMES OF COMPANIES FORMING JOINT VENTURE	
NAME OF JOINT VENTURE (if applicable)	
NAME OF PARTICIPANT IN CHARGE	

ATTACH AUTHORIZATION OR SIMILAR DOCUMENTATION AS DETAILED IN SUB-ITEM 1.7.4.2 - SECTION 00 21 00

END OF SECTION

SECTION 00 41 00 – APPENDIX E
REGISTRATION TO COLLECT HST IN CANADA DECLARATION FORM

(Note: Information requested in sub-item 1.7.5 - Section 00 21 00 shall be summarized on this Appendix.)

COMPANY NAME: _____

BID NO. **P73SJ23287**

TITLE: **Supply of Vocational Truck with Work Body and Vertical Aerial Platform**

The Bidder must confirm and declare if they are Registered to Collect Harmonized Sales Tax (HST) in Canada by checking “YES” or “NO” in the table below:

THE BIDDER ACKNOWLEDGMENT	INDICATE WITH A CHECKMARK YES OR NO BELOW.	
	YES	NO
The Bidder confirms and declares that it is Registered to Collect Harmonized Sales Tax (HST) in Canada	<input type="checkbox"/>	<input type="checkbox"/>

1) Description of Services
Provided for the Contract

Contract Value

Company Name

Contact Name

Telephone No.

Contract Title

Contract Duration

Date Completed or
Percent Complete

2) Description of Services
Provided for the Contract

Contract Value

Company Name

Contact Name

Telephone No.

Contract Title

Contract Duration

Date Completed or
Percent Complete

3) Description of Services
Provided for the Contract

Contract Value

Company Name

Contact Name

Telephone No.

Contract Title

Contract Duration

Date Completed or
Percent Complete

END OF SECTION

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APPENDICES

Schedule A - Non-Disclosure Agreement

GC1 DEFINITIONS

- 1.1 The following definitions shall apply to all Contract Documents and references to the masculine or singular throughout the Contract Documents shall be considered to include the feminine and the plural respectively, and vice versa as the context requires.
- 1.1.1 "ABCC" shall mean the Province of Ontario or City of Toronto or an Agency, Board, Commission or Corporation of the Province or the City. Each ABCC has its own relationship with the Province or City and administers important services to the residents of the Province or the City.
 - 1.1.2 "Accessibility for Ontarians with Disabilities Act" means the *Accessibility for Ontarians with Disabilities Act, 2005*, S.O. 2005, c. 11, as amended from time to time.
 - 1.1.3 "Affiliate" shall have the meaning set out in the Business Corporations Act, as that term is defined herein.
 - 1.1.4 "Applicable Laws" shall mean the meaning as given in GC4.1.
 - 1.1.5 "Bid" shall mean the written offer of a Bidder to perform the Work, as amended by the terms and conditions of the Purchase Order.
 - 1.1.6 "Bidder" shall mean the party submitting a Bid for the Work.
 - 1.1.7 "Business Corporations Act" shall mean the Canada Business Corporations Act R.S.C. 1985, c. C-44, as amended.
 - 1.1.8 "Business Day" shall mean any day that TTC Head Office, located at 1900 Yonge St., Toronto, ON M4S 1Z2, is open for business, which excludes Saturday, Sunday, Civic Holiday, Family Day (as defined in the Employment Standards Act, 2000, S.O. 2000, c.41, as amended from time to time), and any statutory holiday in the Province of Ontario.
 - 1.1.9 "Claims" shall mean any and all actual, threatened or potential claims, demands, proceedings, complaints, grievances, actions, adjudications, litigation, applications, suits, causes of action, orders, charges, arbitrations or other similar process, of whatsoever kind or nature (whether civil, administrative, regulatory, arbitral or otherwise), and Losses in respect of the foregoing matters
 - 1.1.10 "Claim Notice" means a notice in writing by the Contractor, made in accordance with GC31.
 - 1.1.11 "Contract" shall mean the undertaking by the TTC and the Contractor to perform their respective duties, responsibilities and obligations as prescribed in the Contract Documents.
 - 1.1.12 "Contract Amendment" shall mean a written instruction for an agreed final amount, issued by the TTC, to the Contractor for additions, deletions or other revisions to the Work as specified in the Contract Documents.
 - 1.1.13 "Contract Completion" shall mean when the entire Work, except those items arising from the provisions of the Supplementary Condition entitled WARRANTY, has been performed to the requirements of the Contract Documents and is so certified by the TTC's Representative on the date set out by TTC in a letter issued by TTC deeming "Contract Completion".
 - 1.1.14 "Contract Documents" shall mean the Contract Amendments, Purchase Order, Addenda, Supplementary Conditions, General Conditions, Specifications, Contract Drawings, Information Available To Bidders and the Contractor's Bid.

- 1.1.15 "Contract Drawings" or "Drawings" shall mean the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, and diagrams and the shop drawings and other drawings submitted by the Contractor and reviewed and accepted by the TTC's Representative.
- 1.1.16 "Contract Price" shall mean the price stipulated in the Purchase Order, and unless otherwise stated, as may be adjusted in accordance with the terms of a Contract Amendment.
- 1.1.17 "Contract Schedule" shall mean the most recent schedule indicating the timing of major activities of the Work submitted by the Contractor and approved in writing by the TTC's Representative.
- 1.1.18 "Contractor" shall mean the person or entity named in the Purchase Order as "Contractor", including its successors and/or assignees. The Contractor includes the Contractor's authorized representative as designated to TTC, in writing, from time to time.
- 1.1.19 "COVID-19" shall mean the novel coronavirus outbreak, classified as a pandemic by the World Health Organization on March 11, 2020.
- 1.1.20 "Day" shall mean a calendar day.
- 1.1.21 "Event of Default" has the meaning as set out in GC11.
- 1.1.22 "Force Majeure Event" shall mean acts of God, public enemies, acts of governments or foreign states, epidemics, quarantine restrictions, fires or floods that were not caused or contributed to by any act, fault or omissions of the Contractor, strikes, lockouts or organizations of workers, embargoes by transportation companies or public authorities, riots, insurrections, wars, pestilence, lightning, earthquakes, cyclones, issuance of a direction or stop work order related to all or a portion of the Work by a court of competent jurisdiction or other public authority provided that such order was not issued as a result of any act, fault or omission of the Contractor, or other causes which TTC determines in its sole discretion to be wholly beyond the control of the parties but precipitation, cold or hot weather, unseasonable or otherwise, shall not mean a force majeure event.
- 1.1.23 "Good Industry Practice" shall mean using standards, practices, methods and procedures to a good commercial standard, conforming to Applicable Laws, and exercising that degree of skill and care, diligence, prudence, and foresight which would reasonably and ordinarily be expected from a qualified, skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances.
- 1.1.24 "Integrated Accessibility Standards" means O. Reg. 191/11 Integrated Accessibility Standards under the Accessibility for Ontarians with Disabilities Act, as amended from time to time.
- 1.1.25 "Limitations Trigger Date" shall mean, the earlier of:
 - 1.1.25.1 the date of Notice of Termination;
 - 1.1.25.2 the date of Contract Completion.
- 1.1.26 "Losses" shall mean any and all losses, debts, expenses, liabilities, damages, obligations, payments, fines and costs.
- 1.1.27 "Milestone" shall mean any event, date or time specified in the Contract by which the Work, or a certain portion or scope of the Work, shall be commenced and/or completed.
- 1.1.28 "Notice of Suspension" has the meaning as set out in GC10.

- 1.1.29 "Notice to Proceed" or "Pre-Production Notice" shall mean written notification by the TTC authorizing the Contractor to proceed with performing the Work as agreed. For greater clarity a written notification can be an email or a Work Order Release as applicable.
- 1.1.30 "Notice of Termination" shall mean written notice of termination of the Contract by TTC in accordance with GC13.1.
- 1.1.31 "Notice of Termination for Convenience" has the meaning as set out in GC20.1.
- 1.1.32 "Notification of Award" shall mean the Purchase Order provided to the Contractor by TTC.
- 1.1.33 "Parent Company" shall mean a company that controls the Contractor if the Contractor is a subsidiary body corporate, as defined by the Business Corporations Act.
- 1.1.34 "Permits, Licences and Approvals" shall mean all permissions, consents, approvals, certificates, permits, licences, agreements and authorizations to be obtained by the Contractor in accordance with this Contract and as required by Applicable Laws, and the Contractor shall pay for any associated fees.
- 1.1.35 "Products" shall mean materials, machinery, equipment and/or fixtures forming the Work.
- 1.1.36 "Purchase Order" or "P.O." shall mean the document issued by TTC, confirming the award of the Contract to the Contractor upon the terms and conditions as stated in the Contract Documents.
- 1.1.37 "RFB" shall mean the request for bids documents to which the Bidder submitted a Bid to perform the Work. For greater certainty the "Closing" or "Closing date" of the RFB shall be the date and time deadline indicated in the RFB, as amended, by which Bids must be submitted.
- 1.1.38 "Site" shall mean the land or actual place or location designated by TTC to which the Work is delivered to.
- 1.1.39 "Specifications" shall mean written descriptions or instructions pertaining to the performance of the Work under the Contract, including but not limited to the qualitative and quantitative requirements for Products, standards, services, processes and workmanship.
- 1.1.40 "Subcontractor" shall mean the individual, firm, partnership, or corporation having a direct contract with the Contractor to perform a part or parts of the Work including the supply of Products worked to a special design according to the Contract Documents.
- 1.1.41 "TTC" shall mean the Toronto Transit Commission continued pursuant to the City of Toronto Act, 2006, S.O. 2006, c. 11, Sched. A, as amended, and includes TTC's authorized representative as designated to the Contractor, in writing, from time to time, its employees, agents, Commissioners, construction management consultants, administrators, officers, or representatives.
- 1.1.42 "TTC Representative" shall mean the duly authorized representative, designated from time to time by the TTC, to exercise such power, authority or discretion as is required under the Contract.
- 1.1.43 "Warranty Requirements" shall have the meaning as set out in SC9.
- 1.1.44 "Work" or "Works" shall mean the design, manufacture, fabrication, supply and/or related services, required by the Contract.

- 1.1.45 "Worker" shall mean any individual that the Contractor or a Subcontractor employs, contracts with or assigns to perform Work.

GC2 LANGUAGE OF THE CONTRACT

- 2.1 Communications between the Contractor and the TTC shall be in the English language and said communication shall include, but not be limited to, all documents, notes on drawings and submissions required under the Contract.

GC3 INTENT OF THE CONTRACT

- 3.1 The intent of the Contract is for the Contractor to provide everything necessary for the proper performance and completion in every detail of the Work described or implied by the Contract Documents including all Contract Amendments.
- 3.2 The Contractor shall perform the Work stipulated in the Contract Documents, and shall furnish, unless otherwise provided in the Contract, everything necessary for the proper performance and completion of the Work.
- 3.3 The Contractor shall not assign, transfer, convey, sell or otherwise dispose of the whole or any part of the Contract without the written consent of the TTC. Notwithstanding the foregoing, the Contractor acknowledges and agrees that TTC may assign the Contract, or any portion thereof, without the consent of the Contractor.
- 3.4 Nothing contained in the Contract Documents shall imply or create any contractual relationship between any Subcontractor and the TTC.
- 3.5 The Contractor shall exercise its rights and perform its obligations at its own cost and risk without recourse to the TTC, except as otherwise provided in this Contract, in which case the Contractor's sole recourse with respect to the subject matter of this Contract shall be the TTC.
- 3.6 Any technical term used in this Contract that is not defined in this Contract will have the generally accepted industry or technical meaning given to such term.
- 3.7 Save and except for as provided in the Supplementary Condition entitled Contract Documents, the division of this Contract into Conditions, Divisions, Sections, subsections, clauses, sub clauses, paragraphs, subparagraphs, parts and articles and the insertion of headings are for convenience of reference only and shall not affect the construction or interpretation of this Contract.
- 3.8 In this Contract, words in the singular include the plural and vice versa and words in one gender include all genders. "Including" means "including without limitation" and is not to be construed as limiting any general statement which it follows to the specific or similar items or matters immediately following it.
- 3.9 The Contract, including all Contract Documents, constitutes the entire agreement between the Contractor and TTC pertaining to the Work.
- 3.10 Any reference in the Contract to any statute or Act, shall be deemed to include any Regulations made thereunder.
- 3.11 Severability:
- 3.11.1 Any condition, section, subsection or other subdivision of this Contract or any other provision of this Contract which is, or becomes, illegal, invalid or unenforceable, shall be severed from this Contract and be ineffective to the extent of such illegality, invalidity or unenforceability and shall not affect or impair the remaining provisions hereof.
- 3.11.2 Except as expressly provided herein, the Contract shall not be altered or changed in

any way except in writing by TTC.

GC4 LAWS TO BE OBSERVED

- 4.1 In the performance of the Work, the Contractor shall observe and comply with the statutes and regulations of the Government of Canada and the Province of Ontario and with the by-laws of the cities or municipalities within which the Work is located, so far as the said statutes, regulations and by-laws affect the Work or control or limit the actions of persons engaged in the Work ("Applicable Laws").
- 4.2 Wherever a statute, regulation, by-law, standard, code or document or any part thereof is quoted in the Contract Documents, it shall be deemed to refer to the latest amendment or revision in effect on the date of the Closing of the RFB and shall be a part of the Contract as if it had been written in full herein.
- 4.3 The Contract shall be governed by and interpreted in accordance with the laws of the Province of Ontario and any action or proceeding brought by the Contractor to interpret or enforce the Contract shall be commenced in the Courts of Ontario and not elsewhere.

GC5 TAXES AND DUTIES

- 5.1 The Contract Price is inclusive of all applicable Canadian taxes and customs duties, either in force or announced prior to the RFB closing date, even if the effective date is subsequent to the RFB closing date, including but not limited to the Harmonized Sales Tax (HST).
- 5.2 If a change in the tax or duty payable is announced subsequent to the RFB closing date, any change in tax or duty payable will be to the account of the TTC. No additional costs for administration or overhead and profit will be allowed on such changes and the Contractor shall supply at no cost to the TTC, sufficient documentation to permit a determination of the resulting change.
- 5.3 Where an exemption or recovery of government sales tax, custom duties or excise taxes is applicable to the Contract, the Contractor shall provide the TTC within 14 Days where required, with all necessary cost information including original invoices and assistance, at no cost, to facilitate such exemption or recovery of taxes and duties to the credit of the TTC.
- 5.4 Where the Contractor clearly indicated in its Bid that it was not licensed to collect applicable Canadian taxes, then the appropriate amount of taxes applicable will be determined and remitted directly by the TTC to the appropriate governmental agency.
- 5.5 The Contractor shall co-operate fully with TTC in order that TTC may obtain any rebates to which it may be entitled under the Customs Act, R.S.C., 1985, c. 1 (2nd Supp.), as amended, the Excise Tax Act, R.S.C., 1985, c. E-15, as amended, and the Retail Sales Tax Act, R.S.O. 1990, c. R.31, as amended.

GC6 PERMITS AND THIRD PARTY INSPECTIONS AND APPROVALS

- 6.1 The Contractor shall apply for and obtain in its own name, Permits, Licences and Approvals and shall pay fees and give notices necessary and incidental to the due and lawful performance of the Work, in accordance with the Specifications.
- 6.2 In the performance of the Contract, the Contractor shall observe, abide by and comply with all permissions, consents, Approvals, certificates, permits, licences, agreements and authorizations which may be obtained by TTC and as required by Applicable Laws.
- 6.3 If the Work is designated for special tests, inspection or approvals in the Contract Documents or by TTC's instructions or by Applicable Laws, TTC shall not be responsible or liable, in any way, for the actions, delays, or lack or omission to act of any inspectors, inspections, tests or approvals that may be required, including in obtaining any approval that is provided or required by an

inspector or inspection. The Contractor shall not be entitled to any adjustments in Contract Price or Contract Time or Milestone(s) arising or resulting from any action, delays, or omission to act, in relation to an inspector, inspection, test or approval.

GC7 PROPRIETARY RIGHTS

- 7.1 If any design, device, process or material covered by a letters patent or trade mark, copyright, industrial design, trade secrets or other forms of intellectual property, is provided by the Contractor under the Contract, the Contractor shall indemnify, defend and save the TTC harmless from any action or claim arising out of the infringement or alleged infringement of any valid or allegedly valid patent, trademark, copyright, industrial design, trade secret or other forms of intellectual property and shall indemnify the TTC for any cost, expense and damages which it may suffer or be obliged to pay by reason of such action or claim.
- 7.2 The Contractor shall pay royalties and patent fees required for the performance of the Contract.
- 7.3 Any drawings, documents, technical data, methods, processes, tooling, and inventions; whether conceived, or developed and produced during the course of the Contract specifically for the purposes of completing the Contract, shall be the property of the TTC, who shall have sole exclusive rights for subsequent use of same, except as may otherwise be granted by the TTC.
- 7.4 The TTC has the right, within the scope of the Contract and for the sole purpose of operating, maintaining and subsequently modifying the Work, to use, duplicate, or disclose internally within the TTC, the technical data and the information conveyed therein, in whole or in part, and to have or permit others to do so, as set out below:
 - 7.4.1 Manuals or instructional materials prepared for installation, operating, maintenance or training purposes;
 - 7.4.2 Technical data pertaining to items, components or processes which were prepared for the purpose of identifying sources, size, configuration, mating and attachment characteristics, functional characteristics and performance requirements;
 - 7.4.3 Other technical data which has been or is normally furnished without restriction by the Contractor or Subcontractors;
 - 7.4.4 Computer and microprocessor software documentation including program design language or pseudo-code listings, fully annotated source code and machine level listings;
 - 7.4.5 In the event that the Contractor and/or its Subcontractors require an agreement prior to providing confidential technical data to the TTC, then the TTC will enter into a non-disclosure agreement acceptable to said parties to ensure delivery of confidential technical data pursuant to the Contract Documents;
 - 7.4.6 Other specifically described technical data, which the parties agree will be furnished without restriction.
- 7.5 No such copyrighted matter, shall be included in technical data furnished hereunder unless the written permission of the copyright owner has been obtained by the Contractor for use by the TTC in the manner herein described.
- 7.6 The Contractor shall report to the TTC promptly and in written detail each notice or claim of copyright infringement received by the Contractor with respect to any technical data delivered hereunder.
- 7.7 The Contractor hereby permanently waives in favour of the TTC, any moral rights as defined in the Copyright Act, R.S. 1985. c.C-42, which it may have in or to any copyrighted material and shall provide to the TTC at Contract Completion or at such other time as the TTC may require, a

written permanent waiver, in a form acceptable to the TTC, of moral rights of every author who contributed to such copyrighted materials.

GC8 AUTHORITY OF TTC

- 8.1 The TTC's Representative shall represent the TTC upon issuance of the Notification of Award until completion of the Contract and shall have authority to act on behalf of the TTC to the extent provided in the Contract Documents. The TTC's instructions to the Contractor shall be forwarded through the TTC's Representative.
- 8.2 The TTC's Representative shall decide questions which arise relating to the performance of the Work, the rate of progress, the quality and acceptability of Products furnished, the interpretation of the Contract Documents and the mutual rights as between the Contractor and other Contractors working on the Site.
- 8.3 The TTC's Representative has the authority to reject Work which, in the TTC's Representative's opinion, does not conform to the Contract Documents and to require special inspection or testing of the Work, whether or not such Work is fabricated, installed or completed. Neither the TTC's Representative's authority to act nor decisions made to exercise or not to exercise such authority in accordance with the Contract shall give rise to any duty or responsibility of the TTC's Representative to the Contractor or its Subcontractors.
- 8.4 The TTC's Representative will prepare and issue, if appropriate, Contract Amendments in accordance with GC17 - CHANGES IN THE WORK and GC18 - VALUATION OF CHANGES IN THE WORK.
- 8.5 The TTC's Representative may for cause, direct any part of the Work to be commenced and/or completed in priority to any other part of the Work.
- 8.6 In the event of a dispute between the Contractor and TTC as to the interpretation of the Contract, TTC's interpretation shall govern and the Contractor shall proceed with the Work of the Contract in accordance with the Contract Documents as interpreted by TTC. The Contractor shall proceed diligently with the performance of the Contract as interpreted by TTC without any interruptions or delay.

GC9 INSPECTION OF THE WORK BY TTC OR THIRD PARTIES

- 9.1 The TTC's Representative shall, at all times, be provided access to the Work. Work to be done under the Contract shall be done to the satisfaction of the TTC's Representative who has the discretionary authority to reject Work which, in the TTC's Representative's opinion, does not conform to the requirements of the Contract Documents. Defects and deficiencies shall be corrected by the Milestone date(s) or as mutually agreed upon between the TTC's Representative and the Contractor.
- 9.2 If the Work is designated for special tests, inspection or approvals in the Contract Documents or by the TTC's Representative's instructions or by the applicable statutes, regulations and by-laws, the Contractor shall give the TTC's Representative timely notice regarding such inspections. Inspections by the TTC's Representative will be made promptly. The Contractor shall arrange for inspections by other applicable authorities and shall give the TTC's Representative timely notice of such inspections.
- 9.3 If the Contractor fails to provide timely notice to the TTC's Representative of any special tests, inspections or approvals required by the Contract Documents, it shall be required to repeat such tests or inspections at its expense if directed by the TTC's Representative.
- 9.4 Any part or parts of the Work may be specially examined for compliance with the Contract Documents if so ordered by the TTC's Representative. If, upon examination, such Work is found not to be in accordance with the Contract Documents, the Contractor shall correct such Work and

pay the cost of examination and correction. If such Work is found to be in accordance with the Contract Documents, the TTC will pay the cost of examination and reinstatement.

- 9.5 Neither testing, inspection, payment or acceptance of the Work by TTC or third parties shall relieve the Contractor of its responsibilities under the Contract.

GC10 SUSPENSION OR TERMINATION OF THE WORK

- 10.1 When, in TTC's opinion, it is necessary or desirable to suspend the Work, TTC will issue a written notice to the Contractor instructing the Contractor to discontinue or delay the Work ("Notice of Suspension"). The Contractor shall not resume the Work until so instructed by TTC, in writing. The time period from the issuance of the Notice of Suspension until the instruction to resume Work is the "Period of Suspension".
- 10.2 The Contractor, upon receiving the Notice of Suspension, shall, unless expressly stated in the Notice of Suspension, immediately suspend all operations, except those necessary for the safety and protection of personnel and the public and for the care, preservation and protection of the Work, the Site, Products, tools, materials, machinery and equipment and, subject to any instructions in the Notice of Suspension, the Contractor shall discontinue ordering and suspend existing Contracts for Products, materials, facilities and supplies required for the Work. The Contractor shall forthwith take all reasonable necessary measures for the protection of the Work against damage from rain, snow, frost, ice or other causes and shall so maintain the Work and shall be fully responsible for any failure to do so.
- 10.3 The Contractor shall be paid for the agreed upon value of that portion of the Work satisfactorily performed or complete to the date of the notice and if further performance of the Work has been terminated, then any completed Work and any Work in progress shall be handed over to the TTC upon payment for that portion of the total Work of the Contract. The TTC shall not be liable for any other costs arising from such notice including but not limited to loss of anticipated profits or loss of opportunity.
- 10.4 Upon TTC's instruction to resume Work and provided such suspension was not caused or contributed to by the Contractor, the TTC shall grant an extension of time to the Contract Schedule or Milestone(s) as TTC decides after consulting with the Contractor. If TTC and Contractor cannot mutually agree to an extension of time, TTC may at its sole discretion determine the length of the delay and grant an extension of time accordingly by issuance of a Contract Amendment.

GC11 DEFAULT BY THE CONTRACTOR

- 11.1 The Contractor shall be in default of the Contract and TTC may terminate the Contract if the Contractor:
- 11.1.1 Suspends the whole or any part of the Work without cause before Contract Completion;
 - 11.1.2 Fails or refuses to proceed with the Work with due diligence;
 - 11.1.3 Fails to submit when required or refuses to maintain the agreed upon delivery schedule;
 - 11.1.4 Ceases or threatens to cease to carry on its business, or if there occurs, at any time, an act or event of bankruptcy or insolvency of the Contractor (as defined or provided for in any applicable statute), or if any proceedings, voluntary or involuntary, by or against the Contractor under any statute or statutory provisions relating to bankruptcy, insolvency, liquidation, arrangement, re-organization or dissolution are commenced, or if the Contractor makes any proposal under the Bankruptcy and Insolvency Act, R.S.C., 1985, c. B-3, as amended, or if the Contractor or the property or assets of the Contractor become subject to the Winding-up and Restructuring Act, R.S.C., 1985, c. W-11, as amended, or if any application is made with respect to the Contractor under the

Companies' Creditors Arrangement Act, R.S.C., 1985, c. C-36, as amended, or under similar legislation, or if any order shall be made or a resolution passed for the winding up, liquidation or dissolution of the Contractor or if any receiver, receiver and manager, trustee, liquidator or similar official is appointed for the property or assets of the Contractor;

- 11.1.5 Continually or repeatedly refuses or fails to supply sufficient skilled Workers, or Products, plant or equipment of the proper quality or quantity;
 - 11.1.6 Fails to make payments promptly to suppliers or Subcontractors which it is obligated to pay for materials, Products and labour;
 - 11.1.7 Disregards or fails to comply with Applicable Laws or the instructions of TTC;
 - 11.1.8 Fails to comply with the schedule submitted and accepted by TTC in accordance with GC11.3; or
 - 11.1.9 Refuses or fails to perform this Contract in strict accordance with the Contract.
- 11.2 If an Event of Default occurs, TTC may provide written notice to the Contractor specifying the default and instructing the Contractor to remedy such default within 3 Days.
- 11.3 If the Event of Default cannot be corrected within the 3 Days specified, the Contractor shall be in compliance with TTC's instructions if it commences the correction of the Event of Default within the 3 Days specified and provides TTC with a schedule acceptable to TTC for such correction ("Schedule to Cure Default") and completes the correction in accordance with such Schedule to Cure Default. Should TTC accept the Schedule to Cure Default as proposed by the Contractor in accordance with this GC11.3, the Contractor shall be responsible to maintain the Schedule to Cure Default. Should at any time the Contractor fail to comply with the Schedule to Cure Default, the Event of Default shall be deemed not be to corrected and TTC may terminate the Contract, without further notice in accordance with GC13.
- 11.4 If the Contractor fails to correct the Event of Default within the time specified in GC11.2 or the time set out in the Schedule to Cure Default, if applicable, TTC, without prejudice to any right or remedy it may have under GC13, or any other provision of the Contract, may correct such default.
- 11.5 If TTC or any other party under Contract to it, suffers any expense caused by the Event of Default then TTC shall have the right to deduct the value of such expenses from the Contract Price, notwithstanding the correction of the Event of Default within the time specified or subsequently agreed upon.

GC12 DELAY BY THE TTC

- 12.1 If any act, omission or neglect of the TTC, or default of other parties under contract with the TTC, delays the Contractor's performance of any component of the Work giving rise to the delay occurred with the effect that the Milestone(s) or Contract Schedule are affected then, to the extent affected, upon request by the Contractor, an extension of time to the Contract Schedule or Milestone(s) shall be granted as the TTC decides after consulting with the Contractor. If the TTC and Contractor cannot mutually agree to an extension of time, the TTC may at its sole discretion determine the length of the delay and grant an extension of time accordingly by issuance of a Contract Amendment.
- 12.2 If the Contractor has determined as the result of such delay that it has incurred any cost (which shall not include loss of anticipated profit claims) it shall submit a notice of Claim in accordance with GC31.

GC13 TERMINATION FOR DEFAULT

- 13.1 In the event that the Contractor has been put on notice of the Event of Default and the Contractor fails to:
- 13.1.1 Correct the Event of Default within the time set out in GC11.2 or such other time periods as agreed to, in writing, by TTC;
 - 13.1.2 Fails to maintain the Schedule to Cure Default, if applicable; or
 - 13.1.3 Fails to correct the Event of Default within the time specified in the Schedule to Cure Default, if applicable,
 - 13.1.4 TTC may at any time serve upon the Contractor, written notice of termination of the Contract ("Notice of Termination") and the Contract shall be terminated as of the date of the Notice of Termination.
- 13.2 Within 7 Days of the date of the Notice of Termination TTC may take possession of the Products, tools, construction materials and machinery, equipment, and appliances on the Site and complete the Work by whatever method it deems expedient.
- 13.3 Upon the date of the Notice of Termination, the Contractor shall deliver, free from all encumbrances, such part of the Work as have been constructed and such Products and items of plant and equipment as have been procured. The Contractor shall also deliver to TTC all documents, manuals, warranties and other Contract documentation available as of the date of the Notice of Termination relating to the design, construction and completion for the Work.
- 13.4 The Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price,
- 13.4.1 Exceeds the cost of completing the Work and any damages incurred by reason of the Contractor's termination, including the application of liquidated damages, such excess shall be paid to the Contractor; or
 - 13.4.2 Is less than the cost of completing the Work and any damages incurred by reason of the Contractor's termination, including the application of liquidated damages, then the Contractor shall be liable to TTC for any additional cost in completing the Work.
- 13.5 The cost of completing the Work referred to in GC11.4 shall include, but is not limited to, the cost for warranty items, costs incurred by TTC for delay in completing the Work, the costs and expenses to correct any Contractor defaults, costs of correcting any deficiencies and completing the Work, legal costs incurred by TTC, and a reasonable amount to cover any costs and expenses incurred or which may be incurred by TTC in curing or correcting any Work subject to any warranty or guarantee or obligation of the Contractor under the Contract. Furthermore, the cost of completing the Work referred to in GC11.4 shall also include TTC's overhead of 10% of the costs as incurred in accordance with this GC11.5.
- 13.6 For greater clarity, TTC and the Contractor understand that neither is entitled to further payment from the other under this GC13 until the Work is completed and agree, for the purpose of the Limitations Act, that a claim pursuant to GC13.4 shall be discovered on the date the Work is completed, and that GC13.6 is intended to be an agreement to suspend or extend the basic limitation period as contemplated by section 22(3) of the Limitations Act.
- 13.7 Notwithstanding anything to the contrary in this Contract, where the Contractor has been given a notice for an Event of Default as listed in GC11.1.1 to GC11.1.9 (inclusive), TTC may immediately terminate this Contract by serving a Notice of Termination upon the Contractor regardless of whether the Contractor has previously rectified any default(s).

GC14 CONTRACTOR'S RESPONSIBILITIES

- 14.1 The Contractor shall have complete control of the Work and shall effectively direct and supervise the Work so as to ensure conformance with the Contract Documents. The Contractor shall be solely responsible for production means, methods, techniques, sequences and procedures and for co-ordinating the various parts of the Work under this Contract.
- 14.2 The Contractor shall employ the services of a Professional Engineer, licensed in the Province of Ontario, available as needed, to fulfil the requirements of the Applicable Laws and the Contract.
- 14.3 The Contractor shall prepare and update, as required by the TTC's Representative, a schedule in accordance with the requirements contained in the Specifications.
- 14.4 The Contractor shall be as fully responsible to the TTC for the acts and omissions of its Subcontractors, suppliers, agents, consultants and persons directly or indirectly employed by the Contractor as it is for its own acts or omissions.
- 14.5 The Contractor shall, at its own cost and risk, perform all Work:
- 14.5.1 In compliance with all Applicable Laws;
 - 14.5.2 In accordance with Good Industry Practice;
 - 14.5.3 In a manner consistent with the Contract;
 - 14.5.4 In a timely and professional manner;
 - 14.5.5 With due regard to the health and safety of persons and property; and
 - 14.5.6 In accordance with all other terms and conditions of this Contract.

GC15 FORCE MAJEURE

- 15.1 Subject to GC15, if a Force Majeure Event causes or results in the Contractor incurring:
- 15.1.1 an increase in costs;
 - 15.1.2 a delay, with the effect that the Milestone(s) or Contract Schedule are affected; or
 - 15.1.3 any other impact;
- the Contractor's sole remedy is a non-compensable extension to any affected Milestone(s) or Contract Schedule. Upon notification by the Contractor of a Force Majeure Event, in accordance with GC31, the non-compensable extension will be granted to any affected Milestone(s) or Contract Time, to the extent affected by the Force Majeure Event. The Contractor shall not be entitled to any compensation on account of any extension to any Milestone(s) or Contract Schedule under GC15. Further, TTC shall have no liability to the Contractor for Losses incurred by the Contractor as a result of any Force Majeure Event.
- 15.2 If a Force Majeure Event prevents or delays TTC from performing any obligation under the Contract, TTC shall be relieved from any liability or consequence under this Contract to the extent that, and for so long as, TTC is affected by the Force Majeure Event and the Contractor's sole remedy is a non-compensable extension as set out in GC15.1.
- 15.3 In respect of each Claim Notice submitted by the Contractor for a Force Majeure Event, the Contractor, as a part of the Claim Statement applicable to such Claim Notice, shall submit the applicable details in respect of an extension to the Contract Schedule or any Milestone(s), any period(s), part(s) or portions(s) thereof, as applicable. If requested by TTC, the Contractor shall provide a detailed schedule delay analysis supporting the Contractor's request and any additional supporting documentation as requested by TTC.
- 15.4 Changes to the Milestone(s) or Contract Schedule under GC15 shall be administered by

issuance of a Contract Amendment, unless TTC and Contractor cannot mutually agree to an extension of time then TTC at its sole discretion may determine the length of the extension the Contractor is entitled to and grant an extension of time accordingly by issuance of a Change Amendment.

- 15.5 The Contractor and TTC agree that COVID-19, including, any federal, provincial, or municipal state of emergency or any statute, law, order or public health recommendations arising therefrom, whether foreseen or unforeseen, whether issued before or after the Closing date, except for a government order under a state of emergency issued after the Notification of Award which requires the Contractor and/or Subcontractor to close its places of business, is not a Force Majeure Event for this Contract and the parties' respective obligations, rights and remedies in connection therewith are as set out in SC20 - COVID-19 PANDEMIC COSTS of Section 00 73 00.

GC16 ADVERTISING AND PUBLIC RELATIONS

- 16.1 The TTC reserves the right to review and approve all public relations material and advertising related to the Contract prior to publication. The Contractor shall ensure that any material or advertising to be published is submitted in writing to the TTC's Representative for such approval. The TTC's Representative will provide a decision within twenty-one calendar days of receiving such request for approval.

GC17 CHANGES IN THE WORK

- 17.1 The TTC may make changes in the Work without invalidating the Contract, by altering, adding to or deducting from the Work. No change in the Work shall be undertaken without an authorized Contract Amendment and no change in the Contract Price or in Milestones, shall be valid unless so ordered.
- 17.2 When a Contract Amendment is proposed, the Contractor shall present to the TTC's Representative for approval, its change in the Contract Price and in the Milestones, as applicable. The Contractor shall submit a detailed breakdown of the price of the proposed change giving quantities of labour, material and equipment and the unit prices for same along with substantiating documentation within ten (10) business days after the TTC's Representative has initiated the change request. The Contractor shall supply any additional information in support of the price submitted and/or change in Milestones that the TTC's Representative may request.

GC18 VALUATION OF CHANGES IN THE WORK

- 18.1 The TTC may make changes in the Work without invalidating the Contract, by altering, adding to or deducting from the Work.
- 18.2 No change in the Work shall be undertaken without an authorized Contract Amendment and no change in the Contract Price or in Milestones, shall be valid unless so ordered.
- 18.3 When a Contract Amendment is proposed, the Contractor shall present to the TTC's Representative for approval, its change in the Contract Price and in the Milestones, as applicable. The Contractor shall submit a detailed breakdown of the price of the proposed change giving quantities of labour, material and equipment and the unit prices for same along with substantiating documentation within ten (10) Business Days after the TTC's Representative has initiated the change request. The Contractor shall supply any additional information in support of the price submitted and/or change in Milestones that the TTC's Representative may request.

GC19 SETTLEMENT OF DISPUTES

- 19.1 If a claim or any other dispute arising between the TTC and the Contractor cannot be resolved to the satisfaction of both parties, then the parties may between themselves agree to submit the particular matter for binding arbitration in accordance with the provisions of the Arbitration Act of the Province of Ontario and amendments thereto, and upon such other terms and conditions as mutually agreed upon by the parties.
- 19.2 The Contractor shall complete the Work, in accordance with the written instruction of the TTC's Representative, notwithstanding any dispute, arbitration or any legal action initiated by either or both of the parties.
- 19.3 Arbitration proceedings shall not take place until the completion or alleged completion of the Work except in a case where the parties agree that a matter in dispute is of such nature as to require immediate consideration while evidence is available.
- 19.4 No action or suit may be brought by the Contractor (including actions or suits claiming contribution or indemnity) until after the Limitations Trigger Date has been processed by the TTC's Representative and that action or suit shall be only for the amount of any difference between the Contractor's account as submitted and the final invoice.

GC20 TERMINATION FOR CONVENIENCE

- 20.1 Notwithstanding any other provisions relating to the TTC's rights to terminate this Contract, the TTC may, by written notice to the Contractor, terminate this Contract for its own convenience at any time if the TTC deems such action necessary or in the best interests of the TTC. The TTC's right to terminate the Contract for its convenience shall be absolute and unconditional and exercisable by the TTC in its sole discretion. Such notice of termination for convenience shall specify the date upon which such termination becomes effective. Upon receipt of such notice, the Contractor shall cease all operations, except as may be directed by the TTC's Representative to complete any unfinished portion of the Work.
- 20.2 The Contractor, upon receiving such notice of termination from the TTC, shall immediately carry out any instructions given and shall proceed with such work as instructed by the TTC's Representative in the notice of termination. Subject to any directions in the notice of termination, the Contractor shall immediately discontinue ordering Products related to the cancelled Work and shall make every reasonable effort to cancel existing orders and sub-contracts related to the Work, on the best terms available.
- 20.3 In the event the Contract is terminated for the convenience of the TTC pursuant to GC20.1, the Contractor shall only be entitled to payment of the following amounts:
- 20.3.1 In the event that no Work is performed and no Products have been purchased for this Contract by the Contractor prior to cancellation of the Contract, the costs incurred in submitting a Bid for the Contract, providing such costs can be proven.
- 20.3.2 That portion of the Contract Price relating to Work performed to the date of the notice of termination in accordance with the Contract Documents.
- 20.3.3 Cancellation costs (which costs shall not include loss of anticipated profit claims) reasonably incurred by the Contractor as the result of such termination provided the Contractor has substantiated such costs to the TTC's reasonable satisfaction after the TTC has reviewed the details thereof.
- 20.4 The Contractor's obligations as to quality, correction and warranty of any Work performed under this Contract shall continue in force, after such termination.

- 20.5 Once the total effect on the Contract of the said termination has been established, the change to the Contract shall be formalized by the issuance of a Contract Amendment, in accordance with GC18 – VALUATION OF CHANGES IN THE WORK.
- 20.6 Except as describe in this General Condition, the Contractor shall not be entitled to any additional reimbursement on account of any such termination including, without limitation, incidental, special, consequential or other damages, notwithstanding any other provision of the Contract Documents.

GC21 RECORDS AND AUDIT

- 21.1 Prior to Contract completion and thereafter for a period of two (2) years, the Consultant shall permit, and shall cause the Subconsultants to permit, TTC and their auditors and consultants to inspect and audit the books, payrolls, accounts and any other records, whether in electronic format or hard copy, of the Consultant and Subconsultants relating to the Contract or the Work (collectively, the “Books and Records”), at any time as deemed necessary by TTC, to verify the Contractor's valuations of Contract Amendments, cancelled Work and claims, and, in that regard, the Consultant shall provide certified copies of the Books and Records to TTC or access to the Books and Records as required by TTC. Without limiting the generality of the foregoing, such inspection and audit may relate to any information or documents underlying Disputes, Claims (including GC31 Claims), and payments of TTC made pursuant to the Contract.
- 21.2 In the case of the Contractor's neglect or failure to observe fully and faithfully the provision of documentation to validate such Contract Amendments, cancelled Work and claims, the Contractor shall forfeit all right to payment there for, which it otherwise might have had and shall not make any claim in respect thereof; and if made, the TTC may reject the same as invalid, and the Contractor shall not have any right of recovery in respect thereof at law or otherwise, unless written consent of the TTC's Representative to the making of such a claim is obtained.
- 21.3 Should an audit disclose any overbilling on the part of the Contractor, the Contractor shall be responsible to repay to the TTC all monies owed by the Contractor as a result of the overbilling or the TTC at its discretion may deduct the overbilling from monies owed to the Contractor. Further the TTC shall have the right at its sole discretion to restrict the Contractor, from submitting a bid on future TTC Bid Requests, for a period of time deemed appropriate by the TTC.

GC22 SEVERABILITY

- 22.1 Any condition, section, subsection or other subdivision of this Contract or any other provision of this Contract which is, or becomes, illegal, invalid or unenforceable, shall be severed from this Contract and be ineffective to the extent of such illegality, invalidity or unenforceability and shall not affect or impair the remaining provisions hereof.

GC23 PROHIBITION AGAINST GRATUITIES

- 23.1 No Contractor and no employee, agent or representative of the Contractor, may offer or give any gratuity in the form of entertainment, participation in social events, gifts or otherwise to any member of the City of Toronto Council or Commissioner of the Toronto Transit Commission, or any officer or employee of the Toronto Transit Commission in connection with or arising from this Contract, whether for the purpose of securing a future contract or seeking favourable treatment in respect to this Contract.
- 23.2 If the TTC determines that sub-item 23.1 has been breached by or with respect to the Contractor, the TTC may preclude the Contractor from bidding future TTC work and may terminate this Contract without incurring any liability.

GC24 RESTRICTIONS FROM BIDDING, EVALUATIONS OR AWARD OF CONTRACTS

- 24.1 In the event that:

- 24.1.1 TTC provides written notice to the Contractor specifying an Event of Default;
- 24.1.2 The Contractor is terminated for default by TTC;
- 24.1.3 An audit conducted under GC21 - RECORDS AND AUDIT of Section 00 72 00 discloses any overbilling on the part of the Contractor;
- 24.1.4 The Contractor receives an unsatisfactory performance rating issued by TTC or by the City of Toronto and/or any of its Agencies, Boards, Commissions or Corporations; or
- 24.1.5 TTC determines that the prohibition against gratuities set out in GC23 - PROHIBITION AGAINST GRATUITIES of Section 00 72 00 has been breached by or with respect to the Contractor;
- 24.2 TTC, City of Toronto or any of the City of Toronto Agencies, Boards, Commissions or Corporations shall have the right at its sole discretion to:
 - 24.2.1 Restrict the Contractor, from submitting a Bid on future Bid requests for a period of time deemed appropriate by TTC;
 - 24.2.2 Reject any Bid submitted by or refuse to consider or evaluate any Bid submitted by the Contractor or by any Affiliate or successor of the Contractor or by any entity with whom an officer or director of that entity has in the past been associated in any way with the Contractor;
 - 24.2.3 Refuse to award any Contract to the Contractor or to any Affiliate or successor of the Contractor or to any entity with whom an officer or director of that entity has in the past been associated in any way with the Contractor.
- 24.3 TTC may provide information to the City of Toronto and/or any of the City of Toronto Agencies, Boards, Commissions or Corporations, regarding any of the foregoing, which may rely on such information provided by TTC.

GC25 ERRORS, OMISSIONS, DISCREPANCIES OR REQUEST FOR INFORMATION

- 25.1 Notwithstanding the provisions of the supplementary condition entitled CONTRACT DOCUMENTS of Section 00 73 00 Supplementary Conditions, the Contractor shall carefully check the Contract Documents for any errors, omissions or discrepancies. Prior to proceeding with the Work, the Contractor shall notify the TTC's Representative of same and shall not proceed with any such Work affected until it has received direction from the TTC's Representative.

GC26 APPLICABLE POLICIES

- 26.1 The Contractor shall ensure that at all material times during the term of the Contract, its Workers, employees, and Subcontractors (and volunteers if mandated by law), receive training as required under the Accessibility for Ontarians with Disabilities Act and Integrated Accessibility Standards. The Contractor further agrees to comply with the requirements as set out under "AODA Training Requirements" located on TTC's website at <https://www.ttc.ca/transparency-and-accountability/policies/Materials-and-Procurement-Policies/aoda-training-requirements>, which requirements shall be incorporated into these General Conditions by reference and may be updated or changed from time to time at the sole discretion of TTC without notice and the Contractor agrees to comply with the updated or changed requirements.
- 26.2 With respect to the provision, or receipt, as applicable, of the Work and access to the premises, property and employees of TTC, the Contractor shall comply with such applicable policies, procedures, and protocols of TTC as are provided to the Contractor in writing and in advance. TTC may, from time to time, amend its policies, protocols, and procedures or add new policies, protocols,

and procedures and, upon providing notice to the Contractor of such requirement, the Contractor shall have an obligation to comply. The Contractor shall be responsible to ensure that its Workers, employees, and Subcontractors comply with such applicable policies, protocols, and procedures. Without limiting the generality of the foregoing, the Contractor shall comply with the requirements described and set out under "Respect And Dignity Policy", "Workplace Violence Policy", "Fitness for Duty Policy- Expectation For Contractors Procedure", "Whistle Blower Reporting And Protection Policy", "Code Of Conduct Policy", and "Criminal Misconduct Policy" located on TTC's website at: <https://www.ttc.ca/doing-business-with-the-ttc/Procurement-and-Category-Management/about-ttcs-Procurement-and-Category-Management-department/contractor-reference-materials>, which requirements shall be incorporated into these General Conditions by reference and as may be updated or changed from time to time at the sole discretion of TTC without notice and the Contractor agrees to comply and/or ensure its Workers, employees, and Subcontractors comply, as applicable, with the updated or changed requirements.

GC27 SUBLETTING OF THE CONTRACT

- 27.1 Except as specifically indicated in its Bid, the Contractor shall not subcontract any portion of the Work to any other Subcontractor without the prior approval of the TTC.
- 27.2 The Contractor agrees that it shall:
- 27.2.1 Incorporate the terms and conditions of the Contract Documents into all subcontract agreements it enters into with its Subcontractors;
- 27.2.2 Be as fully responsible to the TTC for the acts and omissions of its Subcontractors, agents and persons directly or indirectly employed by it as for its own acts and omissions.
- 27.3 Nothing contained in the Contract Documents shall imply or create any contractual relationship between any Subcontractor and the TTC.

GC28 CONFIDENTIAL INFORMATION

- 28.1 Except as is specifically required for the performance of the Work the Contractor, its partners, directors, employees, officers, agents and Subcontractors, shall not divulge or use elsewhere, whether in whole or in part, any information regarding the TTC and its operation acquired or discovered during the performance of the Work without the prior written consent of the TTC.
- 28.2 If the TTC is required to provide the Contractor and Contractor's staff with certain "Confidential Information" and/or access to restricted portions of TTC property, the TTC's Representative may at his/her sole discretion, request execution by the Contractor or Contractor's staff and/or Subcontractor's staff, of a Non-Disclosure Agreement, attached as Schedule A to these General Conditions. The Contractor shall execute/have executed and return such Non-Disclosure Agreement(s) to the TTC's Representative within seven calendar days for similar execution by the TTC. A copy of the fully executed Non-Disclosure Agreement(s) will be sent to the Contractor within seven calendar days of execution by the TTC.

GC29 INVOICING AND CORRESPONDENCE

- 29.1 Invoices shall be submitted in Canadian dollars and shall detail the following in a form acceptable to the TTC:
- 29.1.1 General:
- the purchase order number and contract reference number and Work Order/Task number(s), as applicable;
 - applicable Harmonized Sales Tax (HST) shall be shown separately on the invoice;

- the Contractor's HST registration number;
- the work period covered by the invoice.

29.1.2 Unit Price Basis: include the following:

- Unit Price Rates as listed in the Price Schedule contained in the Contract Documents;
- Quantity of units of Work provided during the billing (which can be supported by actual time sheets, waybills, expense receipts, etc. as applicable, if requested by the TTC's Representative).

29.2 Invoices in duplicate shall be submitted to:

Toronto Transit Commission

(as indicated in the Purchase Order)

Attention: (as indicated in the Purchase Order)

GC30 OTHER PARTICIPANTS

- 30.1 The Contractor acknowledges and agrees that upon request from an ABCC to purchase against the Contract (either through the same Purchase Order or through a separate purchase order), the Contractor shall provide the goods/services to the ABCC at the same pricing and terms and conditions as set out in the Contract.
- 30.2 The TTC reserves the right to add or delete any ABCC and/or additional delivery locations during the term of the Contract.
- 30.3 A listing of current Toronto's ABCC's may be found on the City's website: www.toronto.ca/abcc.
- 30.4 A listing of current Ontario's ABCC's may be found on the Province's website: <https://www.ontario.ca/page/agencies-boards-and-commissions>.

GC31 CLAIMS AND CONTINUANCE OF THE WORK

- 31.1 The Contractor shall give to TTC written notice of its intention to make a Claim called a "Claim Notice". Such Claim Notice must be provided within:
- 10 Days after the commencement of the event giving rise to the Claim
- Or
- within 10 Days of the date it is reasonable to expect that the Contractor ought to have known that event giving rise to the Claim commenced,
- otherwise any Claims by the Contractor in respect of such Claim (including the event giving rise to the Claim) shall be irrevocably barred, and waived and released by the Contractor.
- Such Claim Notice must set forth particulars of the Claim, the probable extent of the Work subject of the Claim, the estimated monetary value involved and/or the relevant provisions of the Contract, or it will not constitute a valid Claim Notice of intent to a Claim and the Contractor will forfeit its right to a Claim.
- 31.2 The Claim Notice shall, to the extent applicable to the Claim:
- 31.2.1 set forth particulars of the Claim;
 - 31.2.2 the probable extent of the Work subject of the Claim;
 - 31.2.3 the estimated monetary value involved;
 - 31.2.4 the date the Contractor first became aware of the event giving rise to the Claim; and
 - 31.2.4 relevant provisions of the Contract upon which the Claim is made.

- 31.3 If the Contractor fails to comply with the above requirements for providing a Claim Notice, it will be deemed that payment for the Claim is already included in the Contract Price and the Contractor shall have no entitlement to additional payment, increase to the Contract Price, or extension to time to the Contract Time or Milestone(s).
- 31.4 Within 30 Days of submitting a Claim Notice, or such other period as may be agreed by TTC in writing, the Contractor shall submit a comprehensive written Claim statement which shall contain a sufficient description of the facts and circumstances of the occurrence that is the subject of the Claim, together with any supporting or substantiating documents, to enable TTC to determine whether or not the Claim is justified. Further, the Contractor shall supply such additional information and documentation to justify its Claim as TTC may request from time to time.
- 31.5 If the Contractor cannot submit its written Claim statement within the 30 Days, or such other period as agreed by TTC, then the Contractor shall notify TTC prior to expiration of the 30 Days or agreed upon period, and request an extension to the date for the submission of its Claim statement and provide justification for such extension. If the Contractor fails to submit its written Claim statement within the specified 30 Days or such other period as agreed to in writing by TTC, then the Contractor shall forfeit its right to a Claim.
- 31.6 TTC may instruct the Contractor in writing to proceed with any portion of Work as per TTC's interpretation of the Contract which is the subject of a Claim by the Contractor as set out in a Claim Notice or Claim statement at any time by issuance of a notice in writing. If it is subsequently determined by an arbitrator or court of competent jurisdiction that such instructions were in error or at variance with the Contract, TTC shall pay the Contractor's costs incurred in carrying out such instructions which was required to do outside the terms of the Contract, as valued in accordance with GC18 - VALUATION IN CHANGES OF THE WORK and/or GC12 - DELAY BY THE TTC, if applicable.
- 31.7 Upon receipt of the written Claim statement the following process shall be applicable:
- 31.7.1 Within 60 Days, or such other period of time that may be advised by TTC in writing, of receipt of the Claim statement and all supporting and substantiating documentation including any such further documentation as requested by TTC, TTC will advise the Contractor, in writing, of TTC's determination with regard to the validity of the Claim; and
- 31.7.2 If TTC determines that there is a valid basis of Claim, it will initiate negotiations to resolve the issue. Upon reaching a settlement, TTC will issue a Contract Amendment implementing a full and final settlement of all costs, compensation and extensions of time, if any, resulting from the Claim.
- 31.8 Within 30 Days after acceptance of the work or such other times as requested by TTC, the Contractor shall submit a list which indicates the status of all outstanding Claims for which it has submitted prior written Claim Notice.
- 31.9 TTC will not be liable for interest or financing costs on Claims by the Contractor, whether the Contractor ultimately receives compensation for a Claim or a portion of a Claim, from TTC, or otherwise.
- 31.10 It is agreed that no act or failure to act by either party shall be construed as a renunciation or waiver of any of its rights or recourse it has under, provided it has given the notices in accordance with, and has carried out the instructions, as provided in.

END OF SECTION

SECTION 00 72 00 – Schedule A

NON-DISCLOSURE AGREEMENT

This Non-Disclosure Agreement is entered into as of the _____ (“Effective Date”), between Toronto Transit Commission, having a place of business at 1900 Yonge Street, Toronto, Ontario, M4S 1Z2 (hereinafter referred to as “**TTC**”), and _____, having a place of business at _____ (hereinafter referred to as “**Contractor**”). The TTC and Contractor are collectively referred to as “**Parties**” and each one as a “**Party**”. [Edit note: upon execution, add particulars]

WHEREAS the Parties may exchange certain Confidential Information (as defined below) [and the Contractor may be provided access to restricted portions of TTC Property] in order for the Contractor to perform Work, as defined in Contract _____, entitled _____ (“**Purpose**”); [Edit note: upon execution, add contract information]

WHEREAS the TTC and the Contractor in furtherance of such Purpose wish to exchange certain Confidential Information, subject to the terms and conditions set forth below.

ARTICLE 1. DEFINITIONS

- 1.1 In this Agreement, “**Confidential Information**” means any and all material and/or information of a Party (collectively, the “**Disclosing Party**”) which has or will come into the possession or knowledge of the other Party (the “**Receiving Party**”) in connection with or as a result of entering into this Agreement, including information concerning the Disclosing Party’s past, present or future customers, suppliers, technology, or business. For the purposes of this definition, “**information**” and “**material**” includes tangible data, patents, copyrights, trade secrets, processes, business rules, tools, business processes, programs, designs, formulae, marketing, advertising, financial, commercial, sales or programming materials, equipment configurations, system access codes and passwords, written materials, compositions, drawings, diagrams, computer programs, studies, works in progress, visual demonstrations, ideas, concepts, and other data, in oral, written, graphic, electronic, or any other form or medium, both in its original form and as part of a compilation or derivative of any of the foregoing.
- 1.2 In this Agreement, reference to the “**TTC**” shall include commissioners, officers, employees, agents, contractors and consultants employed or retained by the TTC, as the case may be and reference to the “**Contractor**” shall include directors, officers, employees, agents, contractors and consultants employed or retained by the Contractor, as the case may be.

ARTICLE 2. USE AND DISCLOSURE OF CONFIDENTIAL INFORMATION

- 2.1 The Receiving Party shall:
- 2.1.1 use the Confidential Information solely for the Purpose as set out above;
 - 2.1.2 hold the Confidential Information in confidence and shall not sell, assign, transfer or otherwise disclose the Confidential Information, or any information or materials derived therefrom, to any third party without the prior consent of the Disclosing Party, save and except as otherwise provided herein;

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- 2.1.3 employ at least the same degree of care to protect the secrecy and confidentiality of the Confidential Information as it uses to protect its own confidential and proprietary information and materials, but in no event less than reasonable care; and
 - 2.1.4 maintain the Confidential Information in a secure place and restrict the release, access and use of the Confidential Information to those employees and officers who must have access to the Confidential Information consistent with the Purpose;
 - 2.1.5 ensure that each person to whom Confidential Information is disclosed to in accordance with Clause 2.1.4 is advised, prior to the disclosure, of the confidential nature of the Confidential Information.
- 2.2 The Receiving Party shall not:
- 2.2.1 remove any proprietary, copyright, trade secret or other proprietary rights legend from any form of Confidential Information; or
 - 2.2.2 make any public announcement of disclosure concerning the contents of this Agreement beyond the disclosures authorized hereunder without the prior written consent of the other party unless otherwise required by law.
- 2.3 Immediately upon written request by the Disclosing Party, the Receiving Party shall return all copies of the Confidential Information in its possession to the Disclosing Party or certify that all copies in its possession or control have been destroyed.
- 2.4 In the event of a breach of any of the foregoing provisions, the Parties agree that the harm suffered by the Disclosing Party would not be compensable by monetary damages alone and accordingly, that the Disclosing Party shall, in addition to other available legal or equitable remedies, be entitled to an injunction against such breach.

ARTICLE 3. EXCEPTIONS

- 3.1 Notwithstanding anything to the contrary herein, “Confidential Information” does not include information or material:
- 3.1.1 which is publicly available when it is received by or becomes known to the Receiving Party or which subsequently becomes publicly available through no fault of the Receiving Party (but only after it becomes publicly available);
 - 3.1.2 which is already known to the Receiving Party at the time of its disclosure to the Receiving Party and is not known by the Receiving Party to be the subject of an obligation of confidence of any kind;
 - 3.1.3 which is independently developed by the Receiving Party without any use of or reference to the Confidential Information of the Disclosing Party and which such independent development can be established by evidence that would be acceptable to a court of competent jurisdiction;
 - 3.1.4 which is received by the Receiving Party in good faith without an obligation of confidence of any kind from a third party who the Receiving Party had no reason

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to believe was not lawfully in possession of such information free of any obligation of confidence of any kind, but only until the Receiving Party subsequently comes to have reason to believe that such information was subject to an obligation of confidence of any kind when originally received; or

- 3.1.5 which is intangible ideas, concepts, know-how or techniques that may be contained in the material or information that comprises Confidential Information. For greater certainty, Receiving Party is not restricted in any way from using the knowledge learned and experience gained as a result of having had access to Confidential Information of the Disclosing Party provided that such intangible ideas, concepts, know-how or techniques are not disclosed in a manner which would be readily identifiable as Confidential Information of the Disclosing Party.

ARTICLE 4. DISCLOSURE BY LAW

- 4.1 Should a Party be required by law or policy or be requested by legal process or regulatory authority to disclose any Confidential Information, (“**Required Party**”), the Required Party will provide the other Party with prompt written notice of such requirement or request so that the other Party may seek an appropriate protection order or pursue such other action, remedy or assurance necessary to preserve the confidentiality of the Confidential Information, or waive compliance with any of the provisions of this Agreement, or both; and the other parties will fully co-operate with and not oppose the Required Party in respect of such matters. If, in the absence of either a protective order or a waiver by the other Party, the Required Party, in the reasonable opinion of reputable legal counsel, is required by law to disclose any Confidential Information or stand liable for contempt or to suffer other censure or penalty on any failure to so disclose, the Required Party may, without liability hereunder, disclose that portion, and only that portion, of the Confidential Information that is required to be disclosed.

CLAUSE 5. GENERAL PROVISIONS

- 5.1 This Agreement may not be assigned by any Party in whole or in part, without the other Party’s written consent, which consent may be unreasonably withheld.
- 5.2 If any provision, or portion thereof, of this Agreement is determined by a court of competent jurisdiction to be invalid, illegal or unenforceable, such determination shall not impair or affect the validity, legality or enforceability of the remaining provisions of this Agreement, and each provision, or portion thereof, is hereby declared to be separate, severable and distinct.
- 5.3 A term or condition of this Agreement can be waived or modified only by written consent of both Parties. No failure or delay in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any right, power or privilege hereunder.
- 5.4 No single or partial exercise of any right or remedy under this Agreement shall preclude any other or further exercise of any other right or remedy in this Agreement or as provided at law or in equity. Rights and remedies provided in this Agreement are cumulative and not exclusive of any right or remedy provided at law or in equity.

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- 5.5 This Agreement constitutes the complete and exclusive statement of the terms and conditions between the Parties with respect to the subject matter hereof and supersedes all prior and contemporaneous oral or written statements which are inconsistent herewith.
- 5.6 Title to the Confidential Information and any copies thereof shall not pass or transfer to the Receiving Party.
- 5.7 This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario, Canada. The Parties agree that any action, proceeding, application or claim commenced by one Party against the other Party relating to or arising out of this Non-Disclosure Agreement shall be commenced in the City of Toronto, Province of Ontario, Canada.
- 5.8 This Agreement may only be modified by written agreement of all Parties.
- 5.9 All Parties' obligations of confidentiality shall continue until otherwise mutually agreed to in writing, or for a period of _____ years, whichever occurs first, following the last disclosure of Confidential Information. [Edit note: indicate period – default should be 5 years]

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement.

TORONTO TRANSIT COMMISSION

Per: _____
Name: _____
Title: _____

I/We have authority to bind the Commission

[WITNESS: _____
Name:
Date:]

CONTRACTOR

Per: _____
Name: _____
Title: _____

I/We have authority to bind the Corporation

[Edit notes:

If Contractor is a corporation – delete Witness requirements and add the line “I/We have authority to bind the Corporation”.

If Contractor is not a corporation – delete “I/We have authority to bind the Corporation”]

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SC1 SCOPE OF SUPPLEMENTARY CONDITIONS

- .1 The General Conditions shall apply to the Contract except as amended in this Section.

SC2 ADDITIONAL DEFINITIONS

- .1 "COVID-19" shall mean the novel coronavirus outbreak, classified as a pandemic by the World Health Organization on March 11, 2020.
- .2 "New COVID-19 Force Majeure Event" shall mean a recommendation, direction, stop work order, or emergency regulation related to all or a portion of the Work by a court of competent jurisdiction, other public authority, or public health authority issued as a result of COVID-19 at any time after Closing, provided that such order, was not issued as a result of any act, fault or omission of the Contractor, or by other causes which TTC determines in its sole discretion to be wholly beyond the control of the parties.
- .3 "Final Acceptance Certificate" shall mean the certificate to be issued by the TTC's Representative upon satisfactory completion of all of the Work including all inspection and testing and receipt of all applicable drawings and manuals and the TTC shall have deemed to have accepted the Work.

SC3 INSURANCE REQUIREMENTS

- .1 Throughout the term of the Contract, and for any applicable warranty period, the Company shall obtain and maintain at their own expense the following insurance in relation to the Work, any services required to be performed by the Company under the Contract Documents, or otherwise, each such policy to be issued by an insurance company licensed to carry on the business of issuing such policies in Ontario, and possessing a Best's Financial Strength Rating of at least B+.
- .2 Commercial General Liability Insurance which shall not be more restrictive than the Insurance Bureau of Canada (IBC) Form 2100, or its equivalent replacement, and shall include the following:
 - .1 Contractual liability coverage;
 - .2 Damage to property of TTC, not forming part of the Work;
 - .3 Products and completed operations coverage;
 - .4 Contingent employer's liability coverage, for any claims that might be brought against TTC by any employee of the Contractor;
 - .5 Owner's and Contractor's protective coverage for all subcontracted operations;
 - .6 Sudden and accidental pollution coverage;
 - .7 Non-owned automobile liability; and
 - .8 Cross liability and severability of interests clause;
 - .9 Hook liability, if applicable;
- .10 Such insurance shall provide a combined single limit of not less than \$3,000,000 for any one occurrence or accident for all claims arising out of bodily injury (including death) and damage to property of others. Such liability insurance shall contain no exclusions in conflict with the character of the Work required to be performed under the Contract and shall include TTC as additional insured.
- .11 Any other valid or collectible insurance available to TTC shall not apply to any loss until the coverage and limits available under the insurance policies maintained by

the Contractor in accordance with SC3 have been exhausted.

.3 Garage Automobile Policy

- .1 The Company assumes the risk of loss or damage to the equipment while under its care, custody and control and shall immediately proceed to repair, replace and make good such loss or damage without cost to the TTC, whether such loss or damage arises from any acts or omissions of the Company or of third parties or from any other cause. The Company shall obtain and maintain a standard garage automobile policy for a combined single limit per occurrence of not less than One Million Dollars (\$1,000,000).

.4 Motor Vehicle Liability Insurance

- .1 On motor vehicles both owned and non-owned by the Contractor engaged in delivery under the Contract. Such insurance shall provide limits of at least \$1,000,000 per accident for bodily injury and property damage, inclusive.

SC4 EVIDENCE OF INSURANCE

- .1 Within ten (10) Days after the Notification of Award and prior to the commencement of Work at the Site, and upon the placement, renewal, amendment, or extension of all or any part of the insurance, the Contractor shall promptly provide TTC with certificates of insurance originally signed by the insurer or its authorized representative and, if requested by TTC, a complete copy of the policies certified by an authorized representative of the insurer together with copies of any amending endorsements. A second copy of such certificates or policies shall be sent electronically to: Risk Manager, TTCcoi@ttc.ca.
- .2 Each policy shall be endorsed with an undertaking from the insurance company that such insurance will not be cancelled, fail to be renewed or reduced in coverage without thirty (30) Days prior written notice delivered by registered mail to TTC.
- .3 With the exception of automobile liability, each policy shall include an endorsement under which the insurer waives any right of subrogation it may have against TTC and its directors, officers, employees and agents.
- .4 Should TTC determine in its sole discretion that the insurance taken by the Contractor is unsatisfactory in any respect and for any reason whatsoever, it shall forthwith advise the Contractor of such determination and the reasons therefore and the Contractor shall forthwith take out insurance of a character satisfactory to TTC.
- .5 The taking out of the insurance as aforesaid shall not relieve the Contractor of any of its obligations under the Contract.
- .6 Failure of TTC to demand such certificate or other evidence of full compliance with these insurance requirements or failure of TTC to identify a deficiency from evidence provided will not be construed as a waiver of the Contractor's obligation to maintain such insurance.
- .7 The acceptance of delivery by TTC of any certificate of insurance evidencing the required coverages and limits does not constitute approval or agreement by TTC that the insurance requirements have been met or that the insurance policies shown in the certificates of insurance are in compliance with the requirements.
- .8 If any of the required Contractor coverages are to remain in force after Contract Completion or for any applicable warranty period, an additional certificate evidencing continuation of such coverage will be submitted within fourteen (14) Days of Substantial Performance.

- .9 The Contractor will ensure that no insurance required under this Contract will be invalidated or vitiated by any action or failure to act by the Contractor or any of the Contractor's personnel or by any breach by the Contractor or any other person of any declarations, warranties or other terms in such policies.

SC5 CONTRACT DOCUMENTS

- .1 The documents constituting the Contract Documents are complementary to each other and any matter or thing included in any of such documents shall be considered to be included in all.
- .2 In the event of any inconsistency or conflict, the Contract Documents shall be interpreted in accordance with the following order of precedence:
- .1 Contract Amendments;
 - .2 Purchase Order;
 - .3 Supplementary Conditions;
 - .4 General Conditions;
 - .5 Specifications for PB 2310 Supply of Vocational Truck with Work Body and Vertical Aerial Platform;
 - .6 Contractor's Bid;
 - .7 Appendix 1 – Technical Requirements
- .3 Documents of a later date shall govern over like documents.

SC6 INDEMNIFICATION

- .1 The Contractor shall defend, fully indemnify and hold harmless TTC, TTC's officers, employees, members (Commissioner(s)), representative(s), consultants, and agents (collectively the "Indemnitees") in respect of any Losses (including reasonable legal fees and expenses) suffered, sustained or incurred by the Indemnitees, or Claims brought or prosecuted against the Indemnities by whomsoever, in any manner based upon, occasioned by or attributable to any breach of the Contract by the Contractor, or to any negligent act or omission, fault or willful misconduct of the Contractor or any person, agent, consultant, firm or corporation for whose acts the Contractor is liable at law, or damage or loss of any portions of the Work, materials produced or received until delivery of the Products to the Site (collectively referred to as "TTC Claims"). TTC Claims include the following:
- .1 all Losses that any of the Indemnitees may suffer, sustain or incur arising in respect of bodily injury, illness or death of any individual or physical loss of or damage to tangible property (including all or any part of the Site or any other tangible property related thereto); and
 - .2 all Claims arising in respect of bodily injury, illness or death of any individual or physical loss of or damage to tangible property.
- Further, the Contractor shall pay any amount of TTC Claims incurred by TTC on account of any injuries, including death or damages, received or sustained by any persons or property and if it fails to do so, TTC may pay such TTC Claims and deduct the amount thereof from any funds due, or to become due, to the Contractor, or otherwise recover such amounts or any balance thereof from the Contractor.
- .2 With the exception of any Supplementary Condition with respect to the payment of liquidated damages, if applicable, TTC shall not be liable to the Contractor for any loss of

- profit, loss of or damage to reputation, loss of opportunity, or any indirect, special, incidental, punitive, exemplary or consequential damages or any cumulative impact, inefficiency, or loss of productivity, for any reason whatsoever whether those are of the Contractor itself or any of its Subcontractors.
- .3 TTC will not be liable for interest or financing costs or charges for any reason whatsoever.
- .4 Notwithstanding anything to the contrary contained in the Contract, the Contractor's liability to the TTC will not exceed the total Contract Price ("Limitation on Indemnity") for the Work as set forth herein provided, however, this Limitation on Indemnity will not apply to:
- .1 any deductible referred to in the Contract;
- .2 any obligation of Contractor to indemnify TTC based on Claims of third parties on account of personal injury or property damage, including loss of use;
- .3 the amount of liquidated damages payable to TTC hereunder;
- .4 any liability related to the Contractor's gross negligence or willful misconduct; and
- .5 any injury to the Indemnitees or property of the Indemnitees to the extent caused by the gross negligence or willful misconduct of the Contractor, its Subcontractors or agents.
- .5 The Contractor acknowledges and agrees that it shall be fully and completely responsible for the Work except where such responsibility has been expressly waived in writing by TTC or as otherwise expressly set out in the Contract Documents. Any review, inspection or approval of the Work, including design and materials specified by TTC, or silence or acquiescence by TTC regarding the Contractor's failure to comply with the Contract, does not in any way relieve or waive the Contractor of its responsibility for the adequacy of the Work, the provision of design, materials and Work in accordance with the Contract and nor shall any liability be imposed, direct or implied on the part of TTC.
- .6 TTC shall have the right to satisfy any amount from time to time owing to it by the Contractor under this Contract or if the Contractor becomes insolvent, any amount owing to it by the Contractor whether or not related to the Contract, by way of a set-off against any amount from time to time owing to the Contractor by TTC including, but not limited to, any amount owing to TTC pursuant to the Contractor's indemnification of TTC or TTC's right to collect liquidated damages.
- .7 Notwithstanding anything else to the contrary contained in the Contract, SC6 INDEMNIFICATION shall govern. SC6 shall survive termination of the contract for any reason by either party, even in such cases where termination is improper, invalid or wrongful.
- .8 Notwithstanding payment and passage of title to portions of the Work, material produced and received, the Contractor shall indemnify the TTC against damage or loss of these portions of the Work, materials produced or received until delivery of the Products to the Site.

SC7 TERMS OF PAYMENT

- .1 For the 'Unit Price' items the Contractor may invoice upon completion of delivery, inspection and acceptance by the TTC's Representative of the Work item at the Site.
- .2 All payments due under this Contract shall be made 30 days following receipt by the TTC's Representative of an acceptable invoice submitted by the Contractor. In the event

- the 30 days falls on a weekend or public holiday, payment will be made the next business day thereafter.
- .3 Applications for payment shall be dated the last day of the month of the agreed payment period.
 - .4 If the Contractor, as determined by the TTC's Representative, fails to comply with the requirements of Specification PB 2310 by either failing to submit and obtain approval of the Contract Schedule, or failing to provide regular schedule in a timely manner, then the TTC may retain as holdback an amount up to 10% of any progress payment.
 - .5 If the Contractor, as determined by the TTC's Representative, fails to supply Shop Drawings, records and manuals in accordance with the Specifications, then the TTC may retain as holdback an amount of 10% of the Contract Price until the Contractor is in compliance with same.
 - .6 The Contractor shall co-operate fully with the TTC's Representative in order that the TTC may obtain any rebates to which it may be entitled under the Customs Act, the Excise Tax Act, and the Retail Sales Tax.
 - .7 The value of the Work constituting the Contract Price will be computed based on the following:
 - .1 The value of the Work as detailed in the Purchase Order; and
 - .2 The value of Contract Amendments/Contract Changes authorized by the TTC's Representative and performed by the Contractor; and
 - .3 Monies that are properly deductible under the terms of the Contract.

SC8 DELIVERY AND SHIPPING INSTRUCTIONS

- .1 Within ten (10) Days of the Notification of Award and prior to the commencement of the Work, a pre-production meeting shall be held between TTC and the Contractor to discuss and agree upon a schedule, which shall include milestones, key dates, and health metrics, for the delivery of the Work in a form acceptable to TTC (the "Contract Delivery Schedule"). An example of a table showing possible milestones is provided in Specification, Appendix 2.
 - .1 Failure of the Contractor to comply with or to meet the delivery dates stated in the Contract Delivery Schedule shall be deemed an Event of Default under GC11 – DEFAULT BY THE CONTRACTOR.
 - .2 Failure of the Contractor to meet the delivery dates stated in the Contract Delivery Schedule may result in the assessment and application of liquidated damages against the Contractor as set out in SC15 – LIQUIDATED DAMAGES.
 - .3 Any proposed changes by the Contractor to the Contract Delivery Schedule, including milestones, key dates, and health metrics, are subject to approval by the TTC. Any changes to the Contract Delivery Schedule shall be issued as a Contract Change in accordance with GC17 – CHANGES TO THE WORK.
- .2 At the time of vehicle delivery to the Site, the Contractor shall provide bill of sale and required manuals in respect of the vehicle delivered.
- .3 At least five (5) Business Days prior to the vehicle delivery to the Site, the Contractor shall arrange for pre-delivery inspection with TTC Representative.
- .4 At least five (5) business days prior to delivery to the following Site, the Contractor shall contact TTC Representative and the Non-Revenue Foreperson/ Sr. Foreperson to arrange

- delivery and deliver all vehicles between the hours of 7:30 AM to 3:30 PM. For delivery address, refer to Specification 4.1.
- .5 The Contractor shall be responsible for ensuring that Products are properly packaged and delivered in good condition to the required delivery point in accordance with the Contract Work Schedule as specified in the Contract Documents. The Purchase Order number and/or the Contract number, as applicable, must be clearly marked on all packages, boxes, bills of lading, packing slips and any correspondence relating to the Contract. Packing slips must accompany all shipments.
 - .6 If shipments packaged in more than one container do not have the packing slip attached to the outside of the container, then the container with the packing slip must be clearly marked to indicate that fact. The packing slip must indicate the total number of packages, boxes, skids, etc. included with the shipment.
 - .7 If the shipment is originating from outside Canada, the Contractor shall contact the TTC's DSV Sea & Air representative, Joanne Maloney, at phone number: 1-905-262-5078 ext.2610 or by E-mail at joanne.maloney@ca.dsv.com to arrange for customs clearance. For goods originating in the United States or Mexico, a statement of origin compliant with the regulations under the USMCA must be provided with the invoice and packing slip and attached to the shipment of Products
 - .8 Failure to provide all of the above information may delay payment of invoices or may be cause for the invoice to be returned for additional information.

SC9 DEFICIENCIES AND WARRANTY

- .1 The Contractor shall promptly correct at its own expense any defect or deficiency in the workmanship or material which appears within a period of one (1) year from date of Final Acceptance Certificate from the TTC or such longer period of time as offered from the Contractor or its Subcontractor. Neither inspection, testing or acceptance by the TTC of the Work, nor confirmation of receipt, nor partial or final payment or any provision of the Contract shall relieve the Contractor of this responsibility. The Contractor shall be responsible to remedy such defects and/or omissions at no cost to the TTC and shall pay for any damage to other work resulting from such defects and/or omissions. The Contractor shall be responsible for any transportation, and/or courier requirements and all costs therefore. All warranty work shall be arranged by the Contractor to be performed within 200 km.

SC10 SURVIVAL UPON TERMINATION

- .1 The rights and obligations of the Contract as set out in the following Subparagraphs shall survive abandonment or termination for any reason, even in such cases where termination is improper, invalid or wrongful:
 - .1 GC1 DEFINITIONS of Section 00 72 00;
 - .2 GC2 LANGUAGE OF THE CONTRACT of Section 00 72 00;
 - .3 GC3 INTENT OF CONTRACT of Section 00 72 00;
 - .4 GC7 PROPRIETARY RIGHTS of Section 00 72 00;
 - .5 GC13 TERMINATION FOR DEFAULT of Section 00 72 00;
 - .6 GC19 SETTLEMENT OF DISPUTES of Section 00 72 00;
 - .7 GC20 TERMINATION FOR CONVENIENCE of Section 00 72 00;
 - .8 GC21 RECORDS AND AUDIT of Section 00 72 00;

- .9 GC23 PROHIBITION AGAINST GRATUITIES of Section 00 72 00;
- .10 SC1 SCOPE OF SUPPLEMENTARY CONDITIONS of Section 00 73 00;
- .11 SC5 CONTRACT DOCUMENTS of Section 00 73 00;
- .12 SC6 INDEMNIFICATION of Section 00 73 00;
- .13 SC9 DEFICIENCIES AND WARRANTY of Section 00 73 00;
- .14 SC12 TITLE of Section 00 73 00;
- .15 SC14 CONTRACTOR WORK PERFORMANCE RATING of Section 00 73 00;
- .16 SC16 SET OFF of Section 00 73 00;
- .17 And any other Contract provisions or clauses referred to in any of the foregoing.

SC11 TERM OF THE CONTRACT

- .1 The Term of the Contract shall be two (2) years from the date of Notification of Award with the option to extend the Contract for up to two (2) separate one (1) year periods at the TTC's sole discretion. In the event that the TTC requests a contract extension, any adjustments to the Unit Prices will be mutually agreed upon between the TTC and the Contractor and a Contract Amendment, with the agreed upon Unit Prices for the additional year period, will be issued to extend the Contract term.
- .2 The Contractor will be notified by the TTC's Representative of any necessary extension prior to the end of the initial two (2) year term. Upon notification, the Contractor shall confirm that the technical requirements as detailed in the Specifications continue to be met or shall provide details of any changes to the technical requirements for review by the TTC's Representative.

SC12 TITLE

- .1 Immediately upon issuance of the Final Acceptance Certificate for each item of Product, full legal title to each item of Product described in said certificate shall pass to and become the sole property of the TTC, free and clear of all security interest and all other claims whatsoever.
- .2 Notwithstanding payment and passage of title to portions of the Work, material produced and received, the Contractor shall indemnify the TTC against damage or loss of these portions of the Work, materials produced or received until delivery of the Products to the Site.

SC13 NON-RESIDENT WITHHOLDING TAXES

- .1 Certain payments to non-resident corporations or individuals may be subject to withholding taxes, under the Income Tax Act. Non-residents can apply in advance to Revenue Canada, Taxation for a waiver or reduction of the withholding tax requirement. Unless the TTC is provided with a copy of the written information of the result of the waiver application to the Tax Services Office of Canada Customs and Revenue Agency, taxes will be withheld as determined under the Income Tax Act.
- .2 If a Contractor wishes to apply for a waiver it should contact:
Canada Customs and Revenue Agency
Non Resident Withholding Tax Department
1 Front Street West, Suite 100
Toronto, Ontario, Canada
M5J 2X6

Attention: Collections Officer (416) 954-0545, FAX No. (416) 954-8528

The Contractor should follow the instructions and documentation requirements for making an application for a waiver on the Regulation 105 withholding tax, including submission of the form "REGULATION 105 WAIVER APPLICATION" (R105-WA), latest version and required supporting documentation.

SC14 CONTRACTOR WORK PERFORMANCE RATING

- .1 TTC shall, during the term of a Contract, maintain a record of the performance of the Contractor completing the Contract for TTC. This information shall be used to complete a "Contractor Performance Review" report, a copy of which will be provided to the Contractor upon completion. (See attached Appendix I "Contractor Performance Review" form). "Contractor Performance Review" reports may be issued, as deemed appropriate by TTC, at any time during the term of the Contract. The "CONTRACTOR PERFORMANCE REVIEW PROCESS" is located on TTC's website at: <https://www.ttc.ca/transparency-and-accountability/policies/Materials-and-Procurement-Policies/contractor-performance-review>, which requirements shall be incorporated into these General Conditions by reference and may be updated or changed from time to time at the sole discretion of TTC without notice. TTC reserves the right to use any version of the "CONTRACTOR PERFORMANCE REVIEW PROCESS" issued or in effect during the term of the Contract.
- .2 TTC will consider the performance rating of the Contractor for Work performed for TTC, the City of Toronto or any of the City of Toronto's Agencies, Boards, Commissions or Corporations, and it may be considered in the evaluation of future bids from the Contractor.

SC15 LIQUIDATED DAMAGES

- .1 It is agreed by the parties to the Contract that in the event the Contractor fails to perform the Work in accordance with the Contract Documents within any Milestone, damages will be sustained by TTC. The parties acknowledge that it is and will be impractical and extremely difficult to ascertain and determine the actual damage, which TTC will sustain in the event of and by reason of such delay, and that the sum as calculated in accordance with SC15.2 represents a reasonable estimate of the actual damages. The parties hereto agree that the Contractor will pay TTC liquidated damages in the sum(s) identified below for each and every Day beyond which the Work pertaining to the Milestone(s), as specified in the Contract Documents, is delayed.
- .2 The Contractor shall pay TTC the following sum(s) (which is/are inclusive of applicable HST) for liquidated damages, and not as a penalty, for each and every Day the Work is delayed beyond the Milestone dates(s) as prescribed in the Specifications:
 - .1 The sum of forty nine dollars (\$49.00) per day per vehicle for each and every Day beyond the delivery date established at the Pre-Production meeting to take place after Notification of Award as indicated in the Specification PB 2310.
- .3 The total aggregate of the liquidated damage that may be assessed under SC15 shall not exceed four thousand five hundred dollars (\$4,500.00) per vehicle.

SC16 SET-OFF

- .1 The TTC shall have the right to satisfy any amount from time to time owing by it to the Contractor by way of a set-off against any amount from time to time owing by the Contractor to the TTC, including but not limited to any amount owing to the TTC

pursuant to the Contractor's indemnification of the TTC and the TTC's right to collect liquidated damages.

SC17 TTC SUPPLIED PRODUCTS

- .1 Products supplied to the Contractor under the Contract by TTC at no charge shall be known as "TTC Supplied Products". Such Products shall be exclusively for incorporation into the Work. Title to such material shall remain with TTC. All excess TTC Supplied Products shall be held for disposition as instructed by TTC.
- .2 Unless otherwise specified, TTC Supplied Products will be supplied free on board (FOB) to a location designated by the Contractor, which must be approved by TTC. TTC will pay shipping costs and remain responsible for TTC Supplied Products until delivered to the location designated by the Contractor.
- .3 The Contractor shall minimize scrap and wastage in its use of TTC Supplied Products. Excessive usage and waste, caused by failure to use good practices, shall be to the Contractor's account.
- .4 The Contractor shall be liable for the repair or replacement of any TTC Supplied Product which becomes damaged or lost for any reason whatsoever while in the custody or control of the Contractor or at the location designated by the Contractor.
- .5 In those instances where TTC Supplied Products are being supplied on a continuing basis for use in the Work the following shall apply:
 - .1 The Contractor will be notified in advance of the description, source, and delivery dates of TTC Supplied Products.
 - .2 The Contractor shall be responsible for:
 - .1 Examining TTC Supplied Products on receipt for completeness, proper type and possible damage;
 - .2 Acknowledging receipt of each shipment through TTC and notifying TTC of any damage or shortages; and
 - .3 Notifying TTC of all surplus TTC Supplied Products, including scrap and turnings.
 - .3 The Contractor shall be responsible for segregating and holding TTC Supplied Products in a safe place at all times to ensure against its loss, damage or deterioration.
 - .4 The Contractor shall maintain a system of inventory control and records of TTC Supplied Products acceptable to TTC. Such system shall include, as a minimum, records of TTC Supplied Products, received, incorporated into the Work, surplus to requirement, or considered scrap.
 - .5 TTC shall have free access, at all reasonable times, to the storage premises of the Contractor for the purpose of verifying records and auditing inventories of TTC Supplied Products in the custody or control of the Contractor.
 - .6 Following completion of the Work, the Contractor shall pack all surplus/scrap TTC Supplied Products, separately, and arrange shipment of same, FOB a destination to be designated by TTC within the City of Toronto. The Contractor shall pay shipping costs and remain responsible for the surplus/scrap
- .6 TTC Supplied Products until delivered to the location designated by TTC.

SC18 RESPONSIBILITY FOR DESIGN

- .1 The Contractor shall be in all respects responsible for the design of the Work and shall prepare, from the Specification, and authorized changes, necessary working drawings and schedules of material and equipment for the Work. The Contractor shall ensure that the equipment is complete and operational, and is able to fulfil its intended purpose.
- .2 The Contractor shall submit to the TTC's Representative for approval such drawings, samples, patterns and models as required by the Specification or as the TTC's Representative may reasonably request and on which the Contractor may require guidance. In these instances no manufacture or procurement shall be undertaken prior to receipt by the Contractor of approval by the TTC's Representative in writing.
- .3 Drawings, samples, patterns and models which require explanation or discussion shall be presented by the Contractor or his representatives in person to the TTC's Representative or his representatives. The Contractor shall ensure that personnel sent to such discussions are thoroughly aware of all necessary details.
- .4 Within 14 calendar days after receipt of such drawings, samples, patterns and models, the TTC's Representative shall signify his (a) approval if they conform to the Contract Documents, or (b) rejection if they do not. Copies of all drawings which require approval shall be provided in quadruplicate by the Contractor and shall be signed by both parties. Three of the copies so signed shall be retained by the TTC and the fourth copy by the Contractor.
- .5 Drawings signed as above described shall not be departed from except as provided in GC17 - CHANGES IN THE WORK.
- .6 The approval of the TTC's Representative does not in any way relieve the Contractor of responsibility for the adequacy of the design and material specified thereby.

SC19 COVID-19 PANDEMIC COSTS

- .1 The Contractor shall be responsible for, and bear all risks of, at its own expense, all services, Products, equipment and any other expense required as a result of COVID-19 to perform the Work to mitigate risk to, or maintain, the health and safety, including, but not limited to:
 - .1 delays;
 - .2 coordination;
 - .3 productivity impacts;
 - .4 personal protective equipment;
 - .5 testing;
 - .6 cleaning products and services;
 - .7 additional facilities required to maintain social/physical distancing requirements; and
 - .8 any other services, Products and equipment required by any government, public authority or public health authority order, recommendation, direction, or emergency regulation, Applicable Laws, or that the Contractor, and/or TTC, deem necessary for the period from Notification of Award to Contract Completion;
- .2 The Contract Price includes the cost of all services, Products, equipment and any other expense required as a result of COVID-19 to perform the Work to mitigate risk to, or maintain, the health and safety in accordance with the Contract and Applicable Laws, any

- government, public authority or public health authority order, recommendation, direction, or emergency regulation, including, but not limited to, delays, coordination, productivity impacts, personal protective equipment, testing, cleaning products and services, additional facilities required to maintain social/physical distancing requirements, and any other services, Products and equipment the Contractor, and/or TTC, deem necessary.
- .3 Subject to GC14 – CONTRACTOR’S RESPONSIBILITIES of Section 00 72 00, if a New COVID-19 Force Majeure Event causes or results in the Contractor incurring:
- .1 an increase in costs;
 - .2 a delay to the latest expressly accepted Contract Schedule, Revised Contract Schedule, Work Order Schedule or Revised Work Order Schedule, as applicable, in effect as of the date of the New COVID-19 Force Majeure Event, with the effect that the Milestone(s) or Contract Time are affected; or
 - .3 any other impact;
- the Contractor’s sole remedy is a non-compensable extension to any affected Milestone(s) or Contract Time. Upon notification by the Contractor of a New COVID-19 Force Majeure Event, in accordance with GC31 – CLAIMS AND CONTINUANCE OF THE WORK of Section 00 72 00, the non-compensable time extension will be granted to any affected Milestone(s) or Contract Time, to the extent affected by the New COVID-19 Force Majeure Event. The Contractor shall not be entitled to any compensation on account of any extension to any Milestone(s) or Contract Time under SC20. Further, TTC shall have no liability to the Contractor for Losses incurred by the Contractor as a result of any New COVID-19 Force Majeure Event.
- .4 If a New COVID-19 Force Majeure Event prevents or delays TTC from performing any obligation under the Contract, TTC shall be relieved from any liability or consequence under this Contract to the extent that, and for so long as, TTC is affected by the New COVID-19 Force Majeure Event and the Contractor’s sole remedy is a non-compensable extension as set out in SC19.3.
- .5 In respect of each GC31 Claim Notice submitted by the Contractor for a New COVID-19 Force Majeure Event, the Contractor, as a part of the GC31 Claim Statement applicable to such GC31 Claim Notice, shall submit the applicable details in respect of an extension to the Contract Schedule, Revised Contract Schedule, Work Order Schedule, Revised Work Order Schedule, Contract Time, or any Milestone(s), any period(s), part(s) or portions(s) thereof, as applicable. If requested by TTC, the Contractor shall provide a detailed Schedule Delay Analysis supporting the Contractor’s request and any additional supporting documentation as requested by TTC.
- .6 Changes to the Contract Schedule, Revised Contract Schedule, Work Order Schedule, Revised Work Order Schedule, Milestone(s) or Contract Time under SC17 shall be administered by issuance of a Contract Change, unless TTC and Contractor cannot mutually agree to an extension of time then TTC at its sole discretion may determine the length of the extension the Contractor is entitled to and grant an extension of time accordingly by issuance of a Contract Amendment.
- .7 The Contractor, at its own cost and risk, shall ensure it takes any necessary action required by Applicable Laws, any government, public authority or public health authority order, recommendation, direction, or emergency regulation, to perform the Work and to mitigate any safety, health, environmental, social, emergency or other risk related to COVID-19.

- .8 TTC may determine, at its sole discretion, that the Contractor has not met its obligation set out in SC19.7 and require the Contractor to take any additional measures required to perform the Work in order to comply with Applicable Laws, any government, public authority or public health authority order, recommendation, direction, or emergency regulation, related and to mitigate any safety, health, environmental, social, emergency or other risk related to COVID-19.
- .9 The Contractor shall not be entitled to any adjustments to the Contract Price for any action taken under SC19.7 or SC19.8.

SC20 AUTHORIZATION TO PROCEED

- .1 The Contractor shall not proceed with the Work unless authorized by the TTC's Representative in the form of an authorization to proceed as indicated therein and only to the upset limit amount stated in the authorization to proceed, notwithstanding the total upset limit price established for the Contract.
- .2 Upon request of the TTC's Representative, for the purchase of a type and configuration of vehicle as specified in the Contract Documents, the Contractor shall promptly respond with detail which shall include the anticipated time of vehicle delivery to TTC.
- .3 Upon approval by the TTC of the requested detail, the TTC will issue a corresponding "authorization to proceed" authorizing the Contractor to provide the required vehicle.
- .4 The upset limit price for each authorization to proceed shall be in Canadian funds, not subject to adjustment, unless agreed otherwise in writing, and shall be inclusive of all costs in accordance with the Contract Documents.

SC21 EVIDENCE OF APPENDIX 1 - TECHNICAL REQUIREMENTS

- .1 Within ten (10) days from the Notification of Award and prior to the commencement of Work, the Contractor shall submit for review and acceptance of Appendix 1 -Technical Requirements and provide the technical description to TTC, on the TTC's form, of the various parts of the Work.
- .2 Should TTC determine in its sole discretion that the Appendix 1 – Technical Requirements submitted by the Contractor is unsatisfactory in any respect and for any reason whatsoever, it shall forthwith advise the Contractor of such determination and the reasons therefore and the Contractor shall forthwith revise and resubmit of a character satisfactory to TTC.

SC22 OPTION YEAR PRICE ADJUSTMENTS

- .1 Prices shall be subject to Producer Price Index (PPI) adjustments for changes in labour, material and other costs applicable to the Truck industry for orders placed in the Option Years.
- .2 Such adjustments, involving increases or decreases in the prices stated in this Contract shall be based on the United States Department of Labor, Bureau of Labor Statistics PPI Category PCU33612-33612 - PPI industry data for Heavy duty truck manufacturing, not seasonally adjusted, first published preliminary data unless the final published data is available when the Purchase Order is issued in which case the final published data applies. PPI information is available on the Bureau of Labor Statistics website: <https://data.bls.gov/cgi-bin/srgate> (enter the series ID: PCU33612-33612).
- .1 The base PPI for the calculation will utilize the published monthly PPI at the time of the Bid closing.

IPC: Published PPI Index for the month of Bid closing.

UPC: Most recently published monthly PPI Index when TTC notify Contractor to exercise the Option year 2, year 3, etc. of Contract.

The Rate Increases stated as a percentage shall be calculated as follows:

$$\text{Percent Increase} = \frac{\text{UPC} - \text{IPC}}{\text{IPC}} * 100$$

When TTC issue the notification to exercise the option year(s) to the Contractor, TTC will calculate the Unit Price(s) percentage increase or decrease applicable in accordance with the above formula and will advise the Contractor of the Option Year(s) Unit Price(s).

.3 Option Year Exchange Rate Adjustments (Fx)

- .1 In addition to Section 22.2 above, the Option Year(s) Unit Price(s) adjustment will also be subject to a percentage adjustment upwards or downwards based on fluctuations in excess of three (3) percent between the average base rate (BR) of the month when Bid Closing and the previous month of the average rate (PMAR) when TTC issue the notification to exercise the option year(s) to the Contractor. The BR and PMAR rates shall be based on the published data from Bank of Canada.

For greater certainty, fluctuations between the BR and the PMAR that amount to three (3) percent or less shall not be subject to adjustment under this section.

- (A) The BR is the monthly average rate of the month when Bid Closing. For example, if the Contract is closed in October 2023, the average rate for October 2023 will be the BR.
- (B) As an example scenario, the BR was set at \$1.34 CAD (= \$1 USD) and the Option Year PMAR is \$1.42 CAD (= \$1 USD).

In these circumstances the Option Year exchange rate adjustment will be calculated as follows:

- I) The percentage difference between the BR and the PMAR is as follows:

Exchange rate percentage difference:

$$(\text{PMAR} - \text{BR}) / \text{BR} \times 100$$

$$= (\$1.42 \text{ CAD} - \$1.34 \text{ CAD}) / \$1.34 \text{ CAD} \times 100$$

$$= 5.97\%$$

- II) As the exchange rate percentage difference exceeds the set 3% described in 21.3(a) above, the exchange rate adjustment will apply to the Option Year(s) Unit Price(s) as an increase calculated at $5.97\% - 3\% = 2.97\%$.
- .4 If Category PCU33612-33612 is discontinued, negotiations between TTC and the Contractor will be held to determine a fair and reasonable Category to be used. The foregoing adjustment will be applied to the total Price for all Vehicles required under Option Year(s) and shall be set out in each Purchase Order as a separate line item adjustment once the Unit Price has been established in accordance with the pricing set out in this Contract. Applicable taxes will be eligible on the total adjusted Price.
- .5 If a contract is awarded early in the calendar year and the PPI index values are still listed as preliminary for some of the final months of the previous calendar year, the preliminary index values shall be used to determine the annual average PPI index.

END OF SECTION

Contractor Performance Review – [INTERIM] [FINAL]**CONFIDENTIAL**

Bid No.:

Contractor: Contract No.:

Contractor's Representative:

Contract Title:

Scope of Work:

Contract Value: Original - Final -

Completion Date: Scheduled - Actual -

RATINGS

Use the appropriate rating for each category:

VERY POOR - 1**POOR - 2****SATISFACTORY - 3****GOOD - 4****VERY GOOD - 5**

~ If Category does not apply use N.A. ~

★ ★ ★ ★ ★ ★ ★

1 PLANNING AND SCHEDULING**RATING**

Plans and schedules work correctly, meets contract milestones: communicates potential schedule changes and reasons for same: updates work schedules as required.

2 TECHNICAL AND PROFESSIONAL KNOWLEDGE

Demonstrates thorough knowledge of all aspects of the work, and is aware of the latest developments in the industry and employs them as applicable.

3 COMMUNICATIONS

Transmits ideas clearly, keeps all appropriate people informed of activities, encourages communication within Contractor's organization as well as with TTC.

4 CO-OPERATION

Reacts favourably to needs and instructions of the Commission; strives to create a co-operative atmosphere in the performance of the contract.

5 WORKMANSHIP

Performs work in compliance with contract drawings and specifications using a competent workforce and the proper equipment and materials; minimizes deficiencies.

6 SUPERVISION OF WORK

Provides competent and full time (where appropriate) supervision; directs workforce efficiently and effectively and has full knowledge and control of site activities.

SECTION 00 73 00 – APPENDIX I

Page 2

7 CONTRACT ADMINISTRATION

Maintains a suitable office administrative staff to submit work schedules and updates, contract changes etc. correctly and on time.

.....

8 CLAIMS ADMINISTRATION

Provides notice of contract claims as required in the contract; submits justified and reasonable costs for same.

.....

9 SUBMITTALS

Submits all required drawings, data and documentation in accordance with the contract requirements (i.e. shop drawings, material samples, as-built drawings, etc.).

.....

TOTAL RATING

PERCENTAGE %

Would you recommend this Company for future work?

YES ☐

NO ☐

Explain reasons in General Comments below.

GENERAL COMMENTS:

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Assessed by..... Title.....

Reviewed by Title

Approved by Date

DEPARTMENT HEAD

RETURN COMPLETED FORM TO:
ATTENTION:

MATERIALS AND PROCUREMENT
PROJECT PROCUREMENT SECTION

F17-R2



APPENDIX II

Toronto Transit Commission Acceptance Certificate

Contract Description	Contractor	Certificate No. <i>TTC NRV- 1</i>
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FINAL ACCEPTANCE

Date Vehicle Received on TTC Property: _____
Day Month Year

A. VEHICLE DESCRIPTION

<u>TTC Fleet No.</u>	<u>Model No.</u>	<u>Type</u>	<u>Serial No.</u>
.....

This vehicle was found to be ☒ complete
☐ incomplete in respect of the following list of deficiencies

a) Outstanding deficiencies/deadline for correction

B. RECOMMENDATION FOR PAYMENT

I hereby authorize the issuance of this Final Acceptance Certificate and recommend payment to the contractor as per GC1.1.1 Completion for Acceptance and SC2 Terms of Payment.

_____ NRV Inspector	Date: _____ Day Month Year
_____ NRV Fleet Supervisor	Date: _____ Day Month Year
_____ Project Manager	Date: _____ Day Month Year



SPECIFICATION FOR VOCATIONAL TRUCK WITH WORK BODY AND VERTICAL AERIAL PLATFORM PB # 2310

1 General

This specification describes the TTC's requirements for a quantity of two (2) Vocational Truck with Work Body and Vertical Aerial Platform complete with Hydraulic Aerial Platform mounted on a cab and chassis with a service work body. The truck(s) in this specification shall have an insulation and isolation system rated for 20 kV (volts) or better if required by governing Standards or Regulations CSA C225-10 and/or ANSI A92.2-2015. Additional layout information is contained in Appendix 3 – Sketches.

Additional Units: The TTC may purchase two (2) more additional units described in the Specifications. Provide pricing in Appendix C.

2 TTC Background

The Toronto Transit Commission (TTC) is responsible for establishing, operating and maintaining a city wide passenger transportation system. After more than 100 years in service - and at 30 billion customers carried – the TTC has grown to become one of the most visible and vital public service organizations in the Greater Toronto Area (GTA).

3 Approved Equivalent

- 3.1 The Contractor must conform to the Specifications herein, however, substitutions of products may be considered during the term of the Contract for TTC review provided that:
 - 3.1.1 Complete Product information is submitted for the TTC review and approval.
 - 3.1.2 All data relating to changes in the Contract Schedule, if any, and relating to other Work have been submitted.
 - 3.1.3 The same warranty or greater is given for the substitution as for the original Product specified. All claims are waived for additional costs related to the substitution that may subsequently arise.
 - 3.1.4 Installation of the accepted substitution, if applicable, is coordinated with the Work and full responsibility is assumed when substitutions affect other work.
- 3.2 The Contractor must conform to the Specifications herein, however, substitutions to methods or processes described in the Specifications or Contract Drawings may be proposed for TTC review provided that:
 - 3.2.1 Time spent by TTC in reviewing the substitution request is not to be the basis for a claim for extensions to the Milestones. Allow a minimum of twenty-eight Days for TTC to review the substitution request following the receipt of the information required. Contractor will be solely responsible for delays arising as a result of the review by TTC of any request for substitution.
- 3.3 TTC may reject any request for substitution at any time in the process if, in the opinion of TTC, the proposed substitution may:
 - 3.3.1 Delay or adversely affect the Contract Schedule or disrupt the Work of the Contractor or Other Contractors.
 - 3.3.2 Require substantial revision to the Specifications and/or Contract Drawings. Not offer any benefit to TTC.
- 3.4 Do not substitute Products unless such substitutions have been reviewed and accepted for the Work by TTC.
- 3.5 Accepted substituted Products are subject to inspection by TTC and testing procedures. Install accepted substituted Products only after review and receipt of written acceptance from TTC.
- 3.6 When a Product is specified by reference to a standard or by prescriptive or performance Specification, upon request of TTC, obtain from the manufacturer, an independent testing laboratory report indicating that the Product meets or exceeds the specified requirements.



SPECIFICATION FOR VOCATIONAL TRUCK WITH WORK BODY AND VERTICAL AERIAL PLATFORM PB # 2310

4 Milestones

4.1 Refer to Appendix 4 for an example of Milestones

4.2 Pre-Production Meetings
Complete Vehicle Build

After Contract award, a pre-production meeting shall be arranged between the Contractor and the TTC Representative to discuss the process for the entire build.

TTC has existing vehicles, similar to the vehicle(s) described in this specification, they may be examined at (any of) the pre-production meeting(s).

Following the initial pre-production meeting, update meetings shall be arranged for regular check-ins with the project. Additional meetings shall be scheduled 1-5 business days prior to the following milestones:

- Start of body construction
- Start of painting
- Installation of aerial device
- Additional major upfitting (e.g. electrical systems)

Alternatively, TTC may at its discretion, accept emailed photos of the build progress in lieu of meetings.

5 Project Governance

The TTC Representative will require updates using an agreed upon project reporting format such as a Gantt chart, tier 1 schedule with reports or four-blocker presentations. Projects that take more than six (6) months for delivery from time of award or are expected to follow project governance.

For shorter term projects, at the discretion of the TTC, project governance may not be required.

Update frequency to be agreed upon at the first pre-production meeting. A monthly interval may be used when longer lead items are the current phase; once production and up fitting being more the frequency of the updates will increase.

The Contractor shall provide and communicate updated vehicle weight to the TTC Representative via email at the end of each phase of the build as determined at the pre-production meeting.

6 Pre-Delivery Inspection

The Contractor shall contact the TTC Representative at least two (2) business days prior to delivery to arrange inspection.



SPECIFICATION FOR VOCATIONAL TRUCK WITH WORK BODY AND VERTICAL AERIAL PLATFORM PB # 2310

7 Quantity

7.1.1 Summary of all vehicle quantities is outlined in Table 1 below.

Contract Delivery	Quantity	Reference Unit Number
Base term	2	ADD-23-RQ-AT-09, ADD-23-RQ-AT-10
Option 1 Year	2	ADD-23-RQ-AT-11, ADD-23-RQ-AT-12

Table 1 – Estimate Quantities

8 Safety Standards

The vehicles to be provided to the TTC under this Contract must meet Canadian Motor Vehicle Safety Standards (CMVSS), Safe, Productive, and Infrastructure-Friendly (SPIF) standards and all other applicable regulations, legislation, standards, codes, common practice including but not limited to: The Highway Traffic Act (HTA), Canadian Standards Association (CSA) specifically 225-20 and B354.2 and Electrical Safety Authority (ESA) regulations. All systems of this vehicle shall be compliant with all electrical safety standards.

9 Delivery

The following items are requirements for a complete delivery, the Contractor shall provide to the TTC Representative, a copy of the following prior to final delivery to TTC:

- Bill of sale,
 - The required manuals and drawings
 - Service and Operator Manuals
 - Drawings of body construction
 - Drawings and/or schematics of the entire electrical and mechanical systems
-
- Deliveries are to be made between the hours of 7:30 AM to 3:30 PM, Monday through Friday.
 - Vehicles are to be delivered to:
Toronto Transit Commission
W.E.P. Duncan Shops, Non-Revenue Section
1138 Bathurst St.
Toronto, ON
M5R 3H2
Attention: Non-Revenue - Senior Foreperson

10 Training

10.1 Training details shall be confirmed at pre-production meeting. Training for all areas of the completed vehicle shall be provided. At the TTC's request the Contractor shall provide, at the Contractor's expense:

10.1.1 Train the Trainer and train the Operator



SPECIFICATION FOR VOCATIONAL TRUCK WITH WORK BODY AND VERTICAL AERIAL PLATFORM PB # 2310

Upon request from the TTC Representative, the Contractor shall provide up to one (1) day Train the “Trainer” and train the “operator” training per vehicle at the appropriate TTC facility. Training package shall include descriptions of equipment function and use and to be presented to trainers and operators directly and shall also be provided in print.

10.1.2 Maintenance Training

At the TTC Representative request, the Contractor shall provide up to one (1) day “maintenance” training per vehicle at the appropriate TTC facility.

10.1.3 Training - Aerial Device

At the Contractor’s expense, the Contractor shall provide training to instruct TTC, User, Maintenance, and Training Departments in the field operation and maintenance of the completed unit. The training period shall be approximately three (3) days at a minimum.

Training package shall include but not limited to the following:

- Descriptions of equipment function and proper use
- Shall be presented to trainers and operators directly
- Shall also be provided in both electronic and printed formats

Training Materials – the Contractor shall list all training materials such as:

- Printed / electronic format material
- video tapes

Exact training details to be confirmed at time of the vehicle’s delivery.

10.2 Manuals and Training Documents to be available at or before delivery. The Operations Training Center (OTC) requires consent to reproduce (copyrighted) and/or display any Contractor’s material that would be used in the training sessions for TTC users. Training group contact person to be named after contract award. Training Materials - list all training materials such as:

- Service and Operator Manuals
- Design drawings and schematics of mechanical and electrical systems
- Accessory and Parts manuals

10.2.1 One (1) copy to be sent to:

Toronto Transit Commission – Davenport Building at Hillcrest
1138 Bathurst St., Toronto, ON, M5R 3H2
Attention: Non-revenue Vehicles, Fleet Supervisor

10.2.2 One (1) copy to be sent direct to:

Toronto Transit Commission
1138 Bathurst St., Toronto, ON, M5R 3H2, Fax: (416) 338-0208
Attention: Duncan Shops, Car & Truck - Senior Foreperson

11 Decals

11.1 Body builder CMVSS decal shall be located on the door jamb or other approved location. Unit(s) to come complete with all appropriate safety and warning decals, all switches, levers, controls, etc. to be labelled with



SPECIFICATION FOR VOCATIONAL TRUCK WITH WORK BODY AND VERTICAL AERIAL PLATFORM PB # 2310

durable, permanent labels (i.e. Lamacoid), tape labels are not acceptable.

- 11.2 Permanent large durable label to be mounted in an easily viewable location containing at least: OEM and dealer information, model, model year, serial number, rated capacity, system voltage and weight with and without batteries in both kg and lbs.
- 11.3 Weight plaque intended to aid operators in order to determine how to move or trailer the equipment in case of maintenance or should breakdown occur. To be installed in the cab of the truck, in an easily viewable location.
- 11.4 The Contractor shall provide plaque of certification indicating conformance to applicable industry standards and guidelines.
- 11.5 Option # 1: Provide for installation of TTC Specific Decal Package (placement as shown in Appendix 5)



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12 Overhead Truck - Summary of Complete Vehicle

12.1 Requirements for Completed Vehicle

The following items are to be applied to all sections of the completed vehicle.

12.1.1 Driving Conditions

The vehicle shall be capable of operating all year round, in all seasons and all weather conditions. Temperature conditions ranging from -40°C to 40°C (-40°F to 104°F) are expected. Winter conditions will include exposure to snow, ice and freezing rain, road salt and brine.

All materials used on this vehicle shall be rated to withstand UV exposure.

The vehicle shall have the ability to be driven on paved roads, rough unfinished roads, and construction work zones and through gravel, mud, snow, slush and potholes.

This vehicle shall perform tasks at low speed and while stationary under full load as a primary function and shall maintain minimum 30 km/h on all roads and grades throughout the GTA.

The materials used are expected to resist fading and breaking down due to UV exposure over a 10-year life.

The completed vehicle must be fit for conditions as stated above.

12.1.2 Textured Surface or Grip Strut

Where an operator would be expected to walk or stand, Grip Strut or equivalent textured surface, shall be provided. The material shall be made of a non-corroding material such as stainless steel or aluminum.

The intention is for the surface to provide a texture that will significantly reduce the possibility of slipping in all seasons and conditions. See Picture 1 below.

12.1.3 Option # 2: Additional Textured Surfaces - Provide details for installation of textured surface in areas where TTC may request additional areas to have Grip Strut or approved equivalent installed; to be determined at the pre-production meeting.



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Picture 1: Grip Strut on Side Step

Grip Strut (or textured surface) to be used on all of following areas:

- Steps
- Walkways

Information about Grip Strut may be found at...

<https://www.mcnichols.com/plank-grating>

12.2 Frame

Section modulus shall be selected to accommodate GVWR with appropriate frame stiffness. If a double-frame (or chassis frame stiffener) is appropriate for this vehicle, body, or intended purpose then it is to be provided.

12.3 Drain Plugs

The Engine, Transmission and Axles shall have magnetic drain plugs wherever possible.

12.4 Electrical

12.4.1 All wiring shall be of proper capacity. Wiring to be in nylon vapour-proof tubing when run through areas where flammable or explosive gases may be present (locations to be clarified after pre-production meeting).

- All wiring to be waterproof, neat, using grommets, cable clamps, and conduit or looms to secure the same
- All connections to be soldered and heat shrunk
- Junction boxes are to be compatible with a sealed harness system
- All terminals shall be insulated type
- Electrical tape is not acceptable for covering and sealing electrical connections



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12.4.2 Connectors - where used, connectors are to be weather proof Delphi Packard Electric Systems - Weather-Pack connectors or equivalent.

12.4.3 Fire Retardant Loom

12.4.3.1 Self-closing, breathable, fire retarding loom is to be used on all wire and wire bundles on the exterior of the vehicle. For wires in enclosed areas, any wire that is not separated and secured must have fire retardant loom. Any wire or wire bundle that is near other objects that may cause wear must also be inside fire retardant loom Flexo F6 or equivalent

12.4.3.2 Information on this product can be found at: (https://www.techflex.com/general-purpose/flexo-f6?product_selected=F6N1.00BK)

12.5 Roof

12.5.1 All work to be done so that the minimum number of holes are put through the roof. Any holes for wiring are to be protected with an appropriately sized weatherproof strain relief any other holes are to be sealed with 100% silicone (clear). A request must be sent to TTC for any holes that are required prior to fabrication.

12.6 Breaker and Terminal Panel - shall be in an easily accessible location for the circuits that are added to the base vehicle.

12.7 Electrical Drawings and Schematics - including wire colour codes and connection points for all equipment hard wired into vehicle (AutoCAD 2000 or equivalent,).

12.8 Non-OEM Work - AutoCAD 2000, or Solid Edge or equivalent

13 Construction

13.1 Certifications

Certifications to meet current federal, provincial, municipal and relevant governing body's guidelines, codes, standards, and regulations, etc. and where required be certified by a registered Professional Engineer of Ontario qualified in the relevant fields etc. (state).

If required by regulation, legislation, or other, then the installation company to have a Canadian Motor Vehicle Safety Standards (CMVSS) certificate (state certificate #).

13.2 Fasteners - Where fasteners are used, they are to be corrosion resistant and heavy-duty. Non-metallic, insulating washers / spacers shall be used anywhere dissimilar metals are near to each other to prevent galvanic corrosion.

13.2.1 Joints - All joints shall be sealed prior to painting.



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14 Truck Cab And Chassis

14.1 Chassis:

Class 6/7 Chassis is expected based on payload. Crew Cab, Cab-over or conventional - Freightliner M2 106 – or equivalent.

Completed truck, complete work body and aerial device with all fluids shall have a minimum payload of 10,000 lbs or 4,500 kg.

This vehicle will be operated in the City of Toronto (City), on City streets both during the day and at night.

Minimal turning radius and excellent manoeuvrability are desired. A turning radius of 9.75 meters (or 32 feet) or less is expected (for inside turning radius) and a curb to curb radius of approximately 18.3 meters (60 feet) is expected. Offer radius information in Table 2 – Turning Radius, below.

Criteria	Offer (+/- 4 feet or 1.2 meters)
Turning Radius Right – Wall to Wall	Appendix 1
Turning Radius Left– Wall to Wall	Appendix 1
Turning Radius Right – Curb to Curb	Appendix 1
Turning Radius Left– Curb to Curb	Appendix 1
Turning Radius Right – Inside	Appendix 1
Turning Radius Left – Inside	Appendix 1

Table 2 – Turing Radius

14.2 Vehicle Configuration

Parameter	Requirement
Front Axle Position – Setback	Cab and Chassis with a setback front axle
Cab Configuration – Crew Cab	Crew Cab with four captain chairs
Exhaust – Layout	Horizontal Exhaust
Exhaust Port Exit	Roadside, in front of the rear axle or provide a portable exhaust outlet extension hose to permit operations team to divert fumes
Hood	Forward tilting hood
Option # 3 All- Wheel Drive	All-Wheel Drive



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14.3 Chassis Requirements

The requirement for all parameters listed in the chassis requirements, Table 3 below, is that they are appropriate for a class 6/7 truck or better. More details of the items in Table 3 will be listed below the table.

Item	Parameter	Description
14.3.1	Payload Appendix 1	4500 kg (10000 lbs) minimum for completed vehicle
14.3.2	Tires Front Appendix 1	Tire Size: 295 / 80 R 22.5
14.3.3	Tires Rear Appendix 1	'DRW' - dual-rear-wheels and tires, lug-type drive tread, radials
14.3.4	Front Mud Flaps	Behind front tires with anti-sail bracket
14.3.5	Rear Mud Flaps	In front and behind rear tires with anti-sail bracket
14.3.6	Wheels (Rims) Front	Load and Pressure equal or greater than tire rating, white, hub piloted
14.3.7	Wheels (Rims) Rear	Load and Pressure equal or greater than tire rating, hub piloted. Polished aluminium
14.3.8	Axle Ratio Appendix 1	This truck will perform tasks at low speeds and while stationary; in both conditions there will be a load due to vehicle weight and PTO demand. based on OEM analysis;
14.3.9	Axle Front	Meritor or equivalent
14.3.10	Axle Rear	Meritor or equivalent
14.3.11	Differential	Automatic locking differential, in the style of a Detroit Locker, or other as appropriate for a vehicle driving as describe above in driving conditions.
14.3.12	Cab to Axle (CA) Appendix 1	Range: 3.200m to 3.810m (126" to 150")
14.3.13	Payload CG from Front Axle Appendix 1	Range: 6.401m to 6.706m (252" to 264") To consider all accessories including Wire raiser that is rated for 800 lb vertical load.
14.3.14	Wheelbase (WB) Appendix 1	6.401m (252") allowable 10% margin, estimated based on alignment of the center of gravity of the body, storage structure, aerial structure and wire lift over the rear axle.
14.3.15	Turning Diameter (curb-to-curb)	Right Hand: 20.117m (66') or less Left Hand: 17.374m (57') or less
14.3.16	Overall Length Appendix 1	Approximately 9.906m (390")
14.3.17	Suspension Front	Multi-leaf configuration, tapered leaf compatible with axle rating.
14.3.18	Option # 4 Front Suspension	Combination of leaf springs, air bags (and dampers/stabilizer)



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14.3.19	Suspension Rear	Combination spring-damper system utilizing an air bag system - Airliner Suspension or equivalent
14.3.20	Stabilizer	Front stabilizer, if appropriate for this vehicle and intended purpose, then to be provided.
14.3.21	Air Suspension Function	<p>Suspension system must increase ride comfort and stability while the platform is deployed and the vehicle is driving at a crawling speed below 20 KMH (12 MPH):</p> <p>System shall be able to dump all air out of suspension, initiated by trigger event (logic related to other function, for example PTO engaged) and switch in cab function- for example PTO engaged) and switch in cab.</p>
14.3.22	Option # 5 Adjustable Suspension	Adjustable suspension to reduce spring rate of air bags, an adjustable ride leveling system or an alternative control system.
14.3.23	Brakes	<p>Provide disc brakes.</p> <p>Brakes shall be heavy-duty, all-wheel, air and compatible with GAWRs (Gross Axle Weight Ratings).</p> <p>brakes shall be able to be released from the cab with no pressure in main air reservoir</p>
14.3.24	Option # 6 Wear Indication	disc brakes wear indication system
14.3.25	Parking Brake	Positive rear wheel spring-actuated, air-exhaust parking brake shall be provided.
14.3.26	Fuel Tank Appendix 1	<p>170 liters (54 US gallons) or greater. Roadside mounted step style tank</p> <p>Provides 8 hours of operation</p>
14.3.27	DEF Tank	85 liters (22 US gallons) or greater. Mounted next to fuel tank. Blue coloured cap
14.3.28	Tow hooks Front Option # 7	Two (2) tow hooks accessible from front of vehicle
14.3.29	Option # 8 Tow Hooks Rear	Two (2) tow hooks accessible from rear of vehicle
14.3.30	License Plates	Licence with plates, minimum 12 month (dependant on TTC's renewal date)
14.3.31	Telematics Option # 10	Provide vehicle telematics such as Geotech / Geotab
14.3.32	Annual Inspection Sticker	Ministry of Ontario (MTO) inspection sticker attached to driver's side window or lower left corner of windshield and matching slip to be supplied with this vehicle upon delivery
14.3.33	WiFi Fueling Provision	<p>Assetworks # RID-FG3-14-AW FJ3 Vehicle Identification Box</p> <p>Supply and install, Asset Works, Fuel Focus RF Vehicle ID Box Model # RID-FG3-14-AW generic OBDII for light & heavy vehicles.</p> <p>Vehicle ID Box must be compatible with vehicle offered and must be compatible with the City of Toronto M5 Fuel transactions automatically by transmitting the vehicle ID</p>



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		<p>number, odometer, and hour meter to the M5 Fuel Focus Controller.</p> <p>The system shall include but not be limited to the support brackets, clips, face plates, cables, fuel sensor filler neck coupler ring, and all other components. Please note that the GPS antenna is installed on the "A" pillar</p> <p>For additional information see the link: www.assetworks.com or contact the Procurement and Contract Specialist</p>
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Table 2: Chassis Requirements



**SPECIFICATION FOR VOCATIONAL TRUCK WITH WORK BODY AND VERTICAL AERIAL PLATFORM
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14.4.1 Warranty - Chassis

Warranty - complete all applicable warranty information

Upon award of contract, within 10 business days' Contractor to submit one (1) copy of warranty information to:

Toronto Transit Commission – Davenport Building at Hillcrest
1138 Bathurst St., Toronto, ON, M5R 3H2, Fax: (416) 338-0208
Attention: Non-Revenue Vehicles – Fleet Supervisor

	Time	Mileage	State Address (with Phone Number) Where Warranty will be Honoured
Cab and Structure			
Frame			
Corrosion and Paint - Chassis			
Engine			
Transmission			
Power Train (excluding engine and transmission)			
Air Conditioner			
Starter Assembly			
Batteries			
Alternator			
Emissions System			
ABS Brake module and system			
Other (state)			
Other (state)			



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15 Engine

The requirements for the engine configuration are captured in Table 3 below. Further details for some of the items follow Table 3. The engine model offered must be appropriate for the application (see Driving Conditions above).

Item	Engine Parameter	Requirement
15.1	Fuel Appendix 1	Diesel: mapped to operate with the seasonally appropriate/available fuel blends in the Greater Toronto Area with up to 20% biofuel. Gasoline as an alternative: regular octane (87)
15.2	Make Appendix 1	Cummins IS Series or equivalent
15.3	Model Appendix 1	Appropriate for this vehicle and intended purpose
15.4	Configuration/ Cylinders	Appropriate for this vehicle and intended purpose – see driving conditions and minimum performance criteria noted.
15.5	Ratings	Minimum 250 hp @ 2,400 RPM. 620 lb-ft @ 1,600 RPM Engine rating given as example, finished vehicle must meet minimum performance as noted above under driving conditions for a fully loaded vehicle
15.6	Alternator Appendix 1	Heavy-duty appropriate for vehicle and intended purpose. 200 amps or better
15.7	Batteries Appendix 1	Appropriate for this vehicle and intended purpose. Minimum (2) batteries, maintenance free, AGM (absorbent glass mat), 12V Batteries shall be in a weather tight enclosure
15.8	Battery Return Circuit Protection	The vehicle ignition, starting and headlamp circuits should not be modified. The OEM electrical ground points should not be modified An electrical load analysis must be performed prior to adding loads to existing OEM circuits or newly installed circuits. The total current draw (OEM and additional load) shall not exceed: -80% of the OEM circuit protection rating in the passenger compartment -60% of the OEM circuit protection rating in the engine compartment Any added circuitry must be protected by an existing OEM fuse or circuit breaker or supplied by the up-fitter. It is not acceptable to increase the rating of OEM installed fuses or circuit breakers. Installed equipment which uses and electric motor should have a discharge path for the reverse voltage generated by the motor when the power is turned off.



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		For circuits requiring 30 amperes or less, make the connection at the starter motor relay positive terminal with an appropriately sized fuse. For circuits requiring 30 amperes or greater, make the connection directly at the battery positive terminal with an appropriately sized fuse.
15.9	Battery Cable Wear Sleeve	Battery cables shall have a wear sleeve installed on all cables leading to and coming from the battery to the first junction point. All power cables near to other objects that may cause wear shall have a cable wear sleeve. Common name: bilayer polyester textile sleeve. Commonly has black on the outer later and yellow on the inner warning layer
15.10	Fuel Oil / Water Separator	Heavy-duty, mounted outside cab, roadside, in a protected area
15.11	Fuel / Water Separator - Sight Glass – Option #11:	Provide Sight Glass with easily viewable with sight glass
15.12	Air Dryer	Air Dryer with heated auto drain valve
15.13	Fuel Filter	Spin-on fuel filter
15.14	Air System – Remote Fill Valve	Easily accessible, easily accessible, with permanent durable “AIR SYSTEM FILL VALVE” label (i.e. Lamicoid)
15.15	Air System – Low Pressure Indicator	Provide Low-Air Pressure indicator
15.16	Air System – Air Cleaner	Dry type
15.17	Air Tank Drain Valves	Primary tank must have manual drain included with cables and drain valve to be easily accessible also clearly labelled with permanent durable labels
15.18	Engine Stop	Key Controlled
15.19	Keys	4 complete sets of keys with vehicle

Table 3: Engine Requirements



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16 Transmission

The requirements for the transmission configuration are captured in Table 4 below.

Item	Transmission	Requirement
16.1	Type Appendix 1	Automatic Rugged Duty Series or equivalent. PTO provision required
16.2	Body Builder Access	Electronic connector to be installed. Position to be finalized at Pre-Production Meeting
16.3	Automatically Select Neutral with Parking Brake – Option #12	Automatically select neutral when vehicle's parking brake is engaged, if available for this application. This feature should be available with a 5 to 10 second delay for performing circle check
16.4	PTO	Used to drive a hydraulic pump and other systems on the vehicle. Large demand will be from aerial platform and tools. Shall be of sufficient size to drive hydraulic pump and all other systems on this vehicle. Pressure lubricated, air shift type, Chelsea 267 - 10 bolt PTO (TTC fleet standard) or equivalent PTO and PTO powered or operated components to be compatible with Federal, Provincial, Municipal, Ministry of Labour, and any other relevant safety regulations regarding this type of vehicle.
16.5	PTO Control of Fast Idle	Must Automatically engage Fast Idle when required, based on PTO load. PTO shall function when driving up to 6 kph at which point PTO dis-engages. PTO to re-engage when vehicle speed drops below 6 kph.

Table 4: Transmission Requirements

17 Cab

Item	Cab Parameter	Requirement
17.1	Colour	Cab to be white
17.2	Style – Full Size Crew Cab	Cab to be a full size crew cab with four full sized doors to accommodate four adults wearing weather and safety clothing
17.3	Floor	Heavy-duty rubber or vinyl in a dark colour, heavy-duty dark-coloured carpet acceptable
17.4	Insulation	Heavy-duty insulation should be used on the firewall, front floor panels, over engine cover, muffler, etc. This vehicle will be used year-round in all temperatures and will be stopped / idling for long periods while workers work on overhead wires, heavy-duty thermal insulation through-out and under cab shall be provided.



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Item	Cab Parameter	Requirement
17.5	Seats - General	All seats shall accommodate a 99 percentile male as described in: Henry Dreyfuss Associates, The Measure of Man & Woman: Human Factors in Design, New York, John Wiley & Sons; 2002 Completed vehicle is intended to carry four (4) full sized adult operators weighing a minimum of 114 kg (250 lbs) each.
17.6	Seats – Head Height	1.07 m (41”) minimum from seat-base to cab-ceiling (seat at bottom of travel and compressed with 111 kg (244 lbs) operator)
17.7	Seats – Knee Space Appendix 1	71 cm (28”) minimum measured from seat-back forward (seat at rear of travel)
17.8	Seats – Upholstery (Front and Rear)	heavy-duty, dark-coloured, vinyl
17.9	Seats – Front Driver's Seat Appendix 1	Independent captain's style, high back (minimum 22”, expect 25” or better measured from seat) plus head rest and with occupant pneumatic damping system rated to 350 lbs (159 kg) minimum Forward and backward adjustment in the horizontal plane to be a minimum of 7”, Movement of seat and backrest expected to be 90° to 105° Provide Lumbar support if available Adjusters and gears in seat are to be heavy duty, Seats are adjusted multiple times daily
17.10	Seats – Front Passenger's Seat Appendix 1	Independent captain's style, high back (minimum 22”, expect 25” or better measured from seat) plus head rest and with occupant pneumatic damping system rated to 350 lbs (159 kg) minimum Forward and backward adjustment in the horizontal plane to be a minimum of 7”, Movement of seat and backrest expected to be 90° to 105° Provide Lumbar support if available Adjusters and gears in seat are to be heavy duty, Seats are adjusted multiple times daily
17.11	Seats – Rear Passenger's Seat Appendix 1	Two (2) independent captain's style, high back (minimum 22”, expect 25” or better measured from seat) and with occupant pneumatic damping system rated to 350 lbs (159 kg) minimum. Provide Head rests and arm rests. Forward and backward adjustment in the horizontal plane to be a minimum of 3” Movement of seat and backrest expected to be 90° to 105°. Less radial travel is acceptable if backrest is limited by back of cab.
17.12	Mirrors – Driver's Side	Driver's side shall have three mirrors, large rectangular side view approximately 406 mm x 203 mm (16" x 8"), a smaller convex mirror for blind spot monitor and medium sized convex for monitoring aerial platform



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Item	Cab Parameter	Requirement
		Large mirror is heated and powered for adjustment from inside the cab. The other two mirrors are to be heated. OEM split bottom ¼ integral-convex or equivalent
17.13	Mirrors – Passenger's Side	Passenger's side shall have two mirrors, a large rectangular side view approximately 406 mm x 203 mm (16" x 8") and a smaller convex mirror for blind spot monitor The main side view mirror shall be heated and powered for adjustment from inside the blind spot mirror is to be heated. OEM split bottom ¼ integral-convex or equivalent
17.14	Blind Spot and Aerial Platform Monitoring	Blind spot and aerial platform monitoring mirrors heated
17.15	Mirror – Front Curbside	Cross Over Mirror, 6" diameter (or larger) convex, stanchion mounted on curbside-front-fender intended to aid driver in looking directly across front and down curbside of truck.
17.16	Mirrors - General	See Picture 2 for sample configuration
17.17	Interior Mirrors	Interior OEM mirrors shall be provided in separate container, not installed.
17.18	Labels	All labels inside the cab are to be "Lamicoid" labels. The term Lamicoid refers to a multi-ply plastic with contrasting colours on the outer and inner layer; such as labels with a red background and engraved white letters, which can be readily made at most trophy shops. Labels are expected to be durable and UV rated. TTC's preference is black surface and white letters. Red surface is preferable for safety critical labels such as an E-Stop button.
17.19	Labels – Weight and Payload	GVW, GAWR, GCWR and Payload in kilograms and pounds and shall be engraved on a permanently fixed Lamicoid label mounted on overhead console.
17.20	Labels – Height	A label indicating overall height in meters and feet with inches shall be engraved on a permanently fixed Lamicoid label mounted on dash.
17.21	Step Height	Height of first step of all doors to be less than 51cm (20") above the road surface. If the first step is more than 51cm (20") above the road surface, a sturdy textured surface step / running board, at 38cm (15") above the road surface is to be provided.
17.22	Assist Handles	Stainless steel or plastic coated steel (chrome plated not acceptable). Two (2) mounted on roadside, two (2) mounted on curbside, 91.4 cm (36") long, OEM or equivalent, intended to help operators enter and exit cab and help operators reach into Body cabinets and adjust Spot Lights on cab roof, etc. Handles can be seen in Picture 2 below. Handles must in positions such that three points of contact are maintained at all positions above the ground
17.23	Fresh Air, Heater, and Defroster	To be provided



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Item	Cab Parameter	Requirement
17.24	HVAC	<p>Heating system to be provided capable of maintaining a temperature within the cab and crew area of at least 18°C (65°F) with an ambient exterior temperature of -29°C (-20°F)</p> <p>R134a CFC free refrigerant, or equivalent, air conditioning system to be provided capable of maintaining a temperature within the crew area of 22° (72°F) with an ambient exterior temperature of 40°C (104°F)</p> <p>Rear passenger compartment shall have a minimum of two vents for heating and cooling air delivery.</p>
17.25	Insulation	Heavy Duty
17.26	Air Horns	Dual with snow shields or equivalent
17.27	Switches	Switches for functions, beacons and warning lights shall be dash mounted, easily viewable to driver and within easy reach OEM upfitter switches are acceptable
17.28	Option # 13 Power Windows Front	Powered windows front
17.29	Option # 14: Power Windows Rear	Powered windows rear
17.30	Option # 15: Remote / Powered Locks	<p>Remote Locks' - for cab entry, if available as OEM equipment or OEM option</p> <p>At least 1 (drivers) door to have a backup method of lock release and entry (i.e. conventional key) in case remote lock malfunction).</p> <p>3 programmed fobs to be provided with vehicle</p>
17.31	Radio	Factory OEM AM/FM to be provided
17.32	Steering	Power steering shall be provided
17.33	Steering Tilting column	Tilting steering column shall be provided
17.34	Option # 16: Steering Telescoping	Provide optional telescoping steering column to be installed
17.35	Gauges – Tachometer	Tachometer - to be provided
17.36	Interior Lighting	<p>All lighting in the cab to be on a timer. When the truck engine is not running the lights should shut off in 30 minutes.</p> <p>ChargeGuard is the TTC fleet standard</p> <p>https://www.havis.com/product/chrggrd_unv_cntrlmdl-38782-0/</p>



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Picture 2: Mirror Configuration (for reference of position only)



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18 Manuals - Chassis

Chassis Manuals - all applicable manuals to be supplied with the completed vehicle. One (1) copy to be sent to:

Toronto Transit Commission
1138 Bathurst St., Toronto, ON, M5R 3H2
Attention: TTC Representative

- One (1) copy to be sent direct to:

Toronto Transit Commission
1138 Bathurst St., Toronto, ON, M5R 3H2, Fax: (416) 338-0208
Attention: Duncan Shops, Car & Truck - Senior Foreperson

	DVD / Memory stick (1 Copy)	Printed (2 Copies)
Chassis - Parts Manuals	One (1) Electronic	
Chassis - Service Manuals	One (1) Electronic	
Chassis - Engine Manuals	One (1) Electronic	
Chassis - Transmission Manuals	One (1) Electronic	
Chassis - HVAC Manuals (including schematics)	One (1) Electronic	
Chassis - Electrical Manuals (including schematics)	One (1) Electronic	
Chassis - Emission Manuals	One (1) Electronic	
Chassis - Operator Manuals	One (1) Electronic	One (1) printed copy
Engine - Manuals (from engine manufacturer)	One (1) Electronic	
Maintenance – Detailed Maintenance Manual	One (1) Electronic	
Exploded assembly drawing of all up fit systems	One (1) Electronic	
Other (state)		



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19 Body

Body: Make (offer): _____ Model (offer): _____

Appendix 1

19.1 Hydraulic System

Each section of the hydraulic circuit (i.e. Aerial Device and Hydraulic Tool Outlets) shall be supplied by a separate control valve and pressure regulator.

State flow and pressure requirements in table below

Hydraulic System	Requirement
19.1.1 Aerial Device – Flow Rate	8 Minimum – 12 GPM
19.1.2 Aerial Device – Pressure at Flow Rate	2000 PSI (1500 PSI Minimum)
19.1.3 Hydraulic Tool Outlets – Flow Rate Appendix 1	5 GPM Minimum
19.1.4 Hydraulic Tool Outlets – Pressure at Flow Rate Appendix 1	2000 PSI Minimum
19.1.5 Hoses – Rated	Minimum: Rate for 3000 PSI

20 Body Up Fitting

The Overhead Utility Truck(s) describe in this document will have an up fit body similar to the drawing below of existing Overhead Truck. See Appendix 3.

Item	Body Section	Requirement
20.1	Walking and Standing Surfaces	Textured surface is required as outlined in section 11.1.2 Textured Surface or Grip Strut
20.2	Electrical	As outlined above in section 11.4 Electrical
20.3	Lights	Stop, Tail, Turn, Clearance and Reverse lights shall be vapour proof LED Rear amber strobes to be mounted to work body
20.4	Construction – Certificates	Provide as outlined above in section 10.1 Certifications
20.5	Colour – Exterior	White
20.6	Exterior Compartments	All compartments to be painted or made of corrosion resistant material such as stainless steel or heavy (14) gauge aluminium. Unless otherwise stated, all shelving to be mounted on infinitely adjustable “Unistrut” or equivalent open channel mounted accessible from within the compartment using simple hand tools. Proper insulating barrier shall be used between any aluminum and steel



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		<p>interface. Anywhere dissimilar metals are used there must be a barrier to prevent corrosion.</p> <p>Bottom of all compartments to be painted with scratch resistant coating such as Line-X or equivalent to better protect the surface from scratches and corrosion.</p> <p>Compartments to have venting and should be designed to prevent rain water, snow, ice, etc. from running into cabinet.</p> <p>All compartments to have modular design for hooks, bars and shelves.</p> <p>Refer to Appendix 3 for shelving, compartment sizes and distribution. Clear opening widths and accessibility to be maximized by minimizing door framing and actuating mechanism obstruction into compartments (ie roll-up door header).</p> <p>Final details to be determined after contract award.</p> <p>Additional photos of existing vehicles available upon request.</p>
20.6.1	Compartment 2 Detail	Compartment 2 is intended to hold specialized materials and as such requires the inclusion of a glider / roller positioned at the shelf positioned at 40 inches from the top, see drawing Appendix 3 – cabinet 2&3.
20.6.2	Compartments Lighting	<p>All compartments to have low profile lighting, the compartment is to be lit on three (3) sides (both walls and ceiling). Three inch round compartment lights, Whelen 3SC0DCR and/or strip lights or equivalent, Whelen PSL1BB or equivalent.</p> <p>LED lights with an IP rating of 68 or better are required.</p>
20.6.2.1	Scene Lighting	Scene lighting on the body of the truck is required, Whelen PELCB Perimeter Enhancement Light or equivalent.
20.6.2.2	Lights Controls	<p>The controls for the lights should allow for independent operation of the lights on one side at a time; for example, turn off all light on the passenger side of the truck.</p> <p>Alert lighting – Blue / Amber combination LED lights</p> <p>For reference only: the TTC Fleet Standard has become Whelen Core C series and CCTL6</p>
20.6.3	Compartment Doors – Drip Rails	One-piece with formed drip-rail over compartment doors
20.6.3.1	Compartment – Doors	Hinged doors to have double panel construction
20.6.3.2	Compartment – Roll-Up Doors	<p>Roll-Up style compartment doors are required for doors that are within 60 inches of ground. Should be heavy duty and corrosion resistant.</p> <p>Door mechanism and framing to be mounted so as to maximize compartment accessibility. Roll-up mechanism should be positioned high in the compartment and partially occupy the bottom of the shelving above – see Appendix 3 Truck Cabinet Detail – Rear View item 3 for additional detail</p>
20.6.3.3	Compartment Door – Hinges	Heavy-duty stainless steel or equivalent
20.6.4	Sign Storage	<p>One compartment (or part of compartment) with adjustable shelving for signs. Roll up signs (6 items): 5" x 51" (12.7 cm x 129.6 cm) and stand (4 items): 10" x 8.5" x 40" (25.4 cm x 21.6 cm x 101.6 cm) see Appendix 3</p>



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20.6.5	Absorbent Storage	One compartment (or part of compartment) with adjustable shelving for absorbent container: 14" x 10" x 14" (35.6 cm x 25.4 cm x 35.6 cm) and spill kit: 6" x 26" x 22" (15.2 cm x 66 cm x 55.9 cm)
20.6.6	Pull Out Step/Ladder	Where compartments are more than 48" (122 cm) above the ground a pull out step ladder is to be provided. See Appendix 3
20.6.7	Door Stops	Rubber stops to be provided on each compartment door skin
20.6.7.1	Door Seals	Weather Stripping, automotive bulb type 25mm (1") inside all doors
20.6.7.2	Door Locks	Hinged doors to have multi-point compression locks, automotive style with chrome "T" handle designed to pull door and all doors keyed alike See Picture 3 below
20.6.8	Under-Structure	Body under-structure to have welded shear plates bolted to the chassis
20.6.9	Exterior Panels	To be formed to create a smooth face
20.6.10	Floor	3 mm (0.12 inch) minimum rust resistant steel.
20.6.10.1	Option #17 Checker Plate Floor	Provide Checker-plate (diamond plate)
20.6.10.2	Floor Texture – Non-Slip	Floor to be sprayed with non-slip product such as Line-X or equivalent
20.6.11	Wheel Panels	To be fully removable and have a rolled rib edge for strength and rigidity
20.6.12	Ladder – to walkway	Sloped ladder minimum 16" wide on the curbside with Grip Strut (or approved textured surface) steps maximum 12" vertically apart. Ladder sides to be easy for operator to grip while wearing winter gloves 1 ¼" x 1 ¼" square tube or 1 ¼" diameter round tube
20.6.13	Walkway	Walkways shall be electrically insulated Grip Strut (or approved textured surface) walkways both roadside and curbside to be provided above the superstructure (refer to attached sketch). Top surface of Walkways shall be the same height as Aerial Device Platform in lowered position, margin of 100 mm (4 inches) is acceptable.
20.6.13.1	Option #18 Walkway –Non- Conductive Material	Electrically insulated Grip Strut (or approved textured surface) walkways both roadside and curbside to be provided above the superstructure, constructed of non-conductive material equal in strength and durability to aluminium walkway.
20.6.13.2	Top of Structure – Not covered by walkways	Areas that are not covered by Walkways, tops of superstructure to be sprayed with non-slip Line-X or equivalent
20.6.14	Assist Handles	Assist handles shall be stainless steel or plastic coated steel (chrome plated not acceptable); a material that will not corrode or degrade in



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		the conditions listed above in Driving Conditions. One (1) mounted on roadside, one (1) mounted on curbside, approximately 24" length, intended to help operators reach into Body cabinets. Additional handles may be required to maintain three points of contact at any cabinet; to be finalized the pre-build meeting.
20.6.15	Rear Bumper – Step Bumper	Rear bumper shall be a step of full width with heavy-duty, reinforced frame surrounding, full width (of body) and minimum 28 cm (11 inches) deep with Grip Strut top-surface (or approved alternative) maximum 16" above roadway. Bumper shall include a removable center section that provides clearance for trailer tongue, see section V-Notch Pintle hook is expected to be mounted just above the step bumper (see section 19.2 – Hitch); sufficient exposure for the Pintle hook shall be provided with the lower edge approximately 30 cm (12") above the road surface.
20.6.16	Rear Bumper – Steps above Bumper	Two (2) steps to be provided approximately 30 cm (12 inches) above Step Bumper minimum 18 cm (7 inches) deep x Ladder Width, each with Grip Strut (or approved alternative) top surface.
20.6.17	Rear Bumper – 'V' notch	V' Shaped Notch in step bumper to be approximately 86 cm (34 inches) wide between tips to allow for swing of trailer. Removable heavy duty step - notch cover plate full-width complete with spring-pins intended to fit V' Shaped Notch to be provided for when hitch is not in use. See picture 4
20.6.18	Snow bank Deflectors	Shall be installed roadside and curbside, front and rear of Body, front and rear of protruding sections of chassis cab such as fuel tank, cab steps, etc. Approximately 100 mm (4 inches) x 100 mm (4 inches) x 13 mm (1/2 inch) angled, thick gauge metal bolted to chassis frame intended to protect body, including 'Vented Cabinets' bottom vents, when vehicle park in snow banks (refer to attached sketches).
20.6.19	Cable Reel Holder	At the rear driver's side, two (2) with swivel mounts and lock pins (refer to attached sketches). Intended to hold 70 lb coils with a safety factor of 1.5 for a 100 lb or better rating. See Picture 5 for an example of the existing cable reel holders on TTC units.
20.6.20	Removable Retaining Boards & Slot	Removable retaining boards are intended to keep tools safely stored during transport and be easily removed so that moving about the flat deck is unobstructed. A slot installed at (or near the) rear of the body deck at floor for holding two (2) standard 2" x 6" boards, stacked one above the other and to be used to retain tools, equipment, etc. that is loaded on the rear deck. Two (2) standard 2" x 6" boards complete with hand-cut-outs to be supplied.
20.6.21	Option #19 Retaining Boards Alternative Material	If boards are available in non-corroding material such as stainless steel, composites or plastic appropriate for the application and environment.
20.6.22	Protective Screen	A protective cage / screen with frame, expanded metal, hinges, etc. intended to protect the Aerial Device Mast base, hydraulic lines, etc.
20.6.22.1	Protective Screen Service cut-out	Protective cage/screen to have service access to permit viewing of lower emergency platform controls and hydraulic system service access points as outlined in 23.13



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20.6.23	Safety Cone Holder	Safety cone holder, one (1) able to hold up to 6 standard cones shall be installed at the rear under the rear deck See Picture 6
20.6.24	Electric Winch on Arm	An electric winch on an extendable arm that can hold 100 lbs at a distance of 2 feet to be added at rear of body. This small crane type of equipment will be used to raise a lower a heavy anvil from a compartment just above the bumper. A cable remote control for this crane is to be provided with a magnet mount to permit storage at the rear of the truck bed is to be provided.
20.6.25	Anvil Compartment	A pull out compartment to be provided above rear bumper on roadside under the rear deck for Anvil storage. Picture 4
20.6.26	Cable Storage – Heavy Gauge	The rear compartment at full height, shall accommodate a 3-inch-wide compartment at the full height of the utility body. 76 mm (3 inches) wide, to accommodate a large diameter loop of Heavy gauge structural cable. Wire needs to be stored with as large as possible loop to remain flat when installed. See Appendix 3
20.6.27	E-Track	E Track tie down rails to be installed on both inner sides of the body, two (2) rows each side See picture 7
20.6.28	Tie Down Rings	Four (4) tie down / Lashing rings on the floor of the body/rear deck
20.6.29	Reflective Chevrons	Reflective chevron pattern to be installed on the front bumper and the rear body of the truck and around the base of the vertical platform. Picture 8 below shows current TTC truck. See also Livery drawing – Appendix 5 Provide 3M Diamond Grade Reflective Film, part number 75-0301-2248-7 or equivalent.

Reference Pictures

Please note: After pre-production meeting, an existing TTC unit can be examined.





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Picture 3 – Automotive style lock with 'T' handle

Picture 4, below shows existing TTC truck with step bumper, removal 'V' notch, steps above bumper and ladder.



Picture 4 – Rear step bumper, 'V' notch and ladder



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Picture 5 – Cable Reel Holder



Picture 6 – Safety Cone Stand



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Picture 7 – E-Track



Picture 8 – Reflective Chevron



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21 Auxiliary Power System Option #20

Auxiliary power system will be primarily used for charging batteries that belong to cordless tools and for providing power to accessory lighting on the unit as outlined in this section.

Auxiliary Power System Component	Requirement
21.1 Auxiliary Power System Batteries	Appropriate for this vehicle and intended purpose. Xantrex Lithium Ion 12 V Battery or equivalent 12.8 V each, 100 to 300 Amp Hours This option shall include power for auxiliary lighting and tool charging, wiring for lights and electric winch. System should have a self-contained heating and cooling system and be rated to operate in the conditions listed above in Driving Conditions.
21.2 Auxiliary Power System Inverter	This option to include an inverter with True Sine wave output, 3000 W / 150A minimum continuous power. Xantrex Freedom XC PRO 2000-3000 or equivalent AC outlet to be wired to the battery system with proper protection to not draw batteries below the required starting voltage
21.3 Auxiliary Power System Charging	An isolating transfer switch for charging of the second battery is required or another method of isolation for charging. Auxiliary power Battery system charge level to be maintained when vehicle is not running by use of a charging system connected to Shore Power and to use a Xantrex True Charge 2 or equivalent charger.
21.3.1 Auxiliary Battery Mounting	Batteries shall be mounted for easy access; if behind cab then roadside fitted in tray or compartment with protective cover to prevent moisture ingress and resist corrosion (stainless steel or equivalent). Compartment to also accommodate Charger and Inverter within close proximity. Inverter power outlet to be provided with easy access and a shelf mounted to accommodate power tool charger.

21.4 Primary Output

Output will service the following circuits:

- The first circuit is intended to provide power to the battery chargers for cordless tools. A five (5) amp circuits with six (6) receptacles each for a total of twelve (12) plugs.
- The second circuit is intended to provide power to a large load such as a saw or motor rated at 20 Amps for up to 1200 watts. A single receptacle is required.
- Power for aftermarket console (describe below in Aftermarket Equipment): two (2) USB charging ports, one (1) 120V AC plug intended to charge a laptop and one (1) 12 V DC outlet if OEM 12 V outlet not provided.



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22 Towing Package

Towing Package Component	Requirement
22.1 Label	Dash-mounted Lamicoid label stating: "MAXIMUM TRAILER WEIGHT IS ____ KG (____ LBS)"
22.2 Hitch	Pintle hook with air operated plunger, sized to towing capacity of the vehicle complete with attachment points for safety chains and mounted 22" above ground level at center of opening, with vehicle at ride height. See picture 4 for example on existing unit
22.3 Electrical Trailer Brake	OEM brake controller if vehicle is factory equipped (connectors to be wired as above) or Tekonsha Voyager model # 9030 or equivalent wired into 7-pin receptacle Brake controller to be located on the dash, position not to interfere with operator station
22.4 Receptacle - '4-Pin'	- '4-pin' Male, Blunt Cut 4 Pole Flat socket - Socket – 7 Way socket, Grote model # 82-1032 or equivalent, See 19.5.1 Below for Trailer Connector Wiring detail
22.5 Receptacle - '7-way'	Socket – 7 Way Required - intended for towing trailers equipped with electric brakes Grote # 82-1058 or equivalent Meets or exceeds SAE J560 specifications Note: both 22.4 and 22.5 are required

22.5.1 Receptacles Trailer Connector Wiring

Description	Wiring Requirement			
Socket – 4 pole flat	NO.	COLOR	CIRCUITS	
	1	White	Ground Return	
	2	Green	Right Turns & Brake Lights	
	3	Yellow or Red	Left Turn & Brake Lights	
	4	Brown	Tail Lights	
Socket – 7 Way	#	COLOR	CIRCUITS	RECOMMENDED WIRE GAUGE
	1	White	Ground Return	8 GA
	2	Black	Clearance, Side Marker and Identification Lamps	12 GA
	3	Yellow	Left Turn Signal & Hazard Signal	12 GA
	4	Red	Stop Lamps & Anti-Lock Devices	10 GA
	5	Green	Right Turn Signal & Hazard Signal	12 GA
	6	Brown	Tail, Rear Clearance, Marker and License Plate Lamps	12 GA
	7	Blue	Auxiliary Circuit/ABS	10 GA

22.5.2 Wiring to be protected from strain and chafing with abrasion and fire retardant wire loom wherever possible. Flexo F6 manufactured by Techflex Braided Sleeving Products or equivalent. Information about this product may be found at: <https://www.techflex.com/general-purpose/flexo->



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23 Aftermarket Equipment

After-Market Equipment	Requirement
23.1 Switches	Dash mounted switches where possible, console mounted if dash mount is not possible. One integrated controller (mounted in or on the console) for all lights is to be provided if dash mounted is not available.
23.2 Console	Floor Mounted between front seats with a rear hinged lid to provide access from either seating position. The console shall be mounted between the driver and front-passenger seat; it is intended to hold binders and paper work. Adrian Steel Center Console Desk model series CCD##, with laptop holder model CCDLTH and paper clip Or Ranger Design model 5045 or equivalent. Both models are intended for smaller trucks and may need to be mounted on a base. Any mounting plates are required to be installed with the console. The console will house the radio and a receiver for a wireless anemometer system; there should be a minimum of three (3) openings available in the console for these and similar devices.
23.2.1 Console mounted equipment	USB Charging Outlets - Two (2) USB Charging ports, 120 V AC Plug - One (1) 120V AC plug intended to charge a laptop
23.3 Traffic Director - Rear	TC12 style arrow board to be installed on the left side of the rear face. If a TC12 arrow board cannot be accommodated, then a Whelen TAM83 traffic advisor or equivalent is to be located at the rear of the truck See picture 9 below for placement.
23.4 Traffic Director - Front	Traffic director at front of vehicle, location to be decided at pre-production meeting. Whelen TAM83 or equivalent
23.4.1 Controls – Light Controller	Provide Dash mounted controls. Controls may be mounted on Console if dash mounts are not possible
23.5 Lights	All lighting to be 12 V LED where possible. Body and Cab lighting details provided below – see section 20.8.2 and 20.8.3
23.6 Back-Up Alarm	White Sound Smart Back-up Alarm Self-Adjusting 5 to 10 dB above ambient, Multi-frequency broadband sound, instantly locatable, Sound confined to danger area. Unit must eliminate noise nuisance; 87 – 107 dB units are required. Unit must be sealed to handle cleaning by pressure washer.
23.6.1 Back Up Alarm – MFG	Brigade model SA –BBS-107 or equivalent;
23.7 Mobile Radio	Rough – in as per radio Appendix 2
23.7.1 Radio – point to point rough in	A 12v connection at the dash for a point to point radio. The 12 v circuit shall run from the ignition side and be connection through the OEM fuse panel or up fitting fuse panel



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Picture 9 – Rear Lighting

If the space is limited then a single bar style traffic director may be better suited.

23.8 Controls – Light Controller

Dash mount controls are preferred. Controls mounted on Console if dash mounts are not possible for the following:

- Traffic Directors (Front and rear to be switched on separately)
- Beacon lights
- Spot lights
- Amber flashers (all sides to be switched separately)

23.8.1 Controls for all aftermarket lighting will be controlled by a lighting controller.

Configurable Vehicle control system with automation and remote connectivity - Whelen Cencom Core C399 and CCTL6 controller or equivalent. No Siren feature required

23.8.2 Lights - Cab

Auxiliary Dome Light

Dome light is to be located in the cab, centered as best as possible on the roof (ceiling). It is expected to be 4" to 6" in diameter with a three position switch. Light shall have On, Off and Night. Night mode should be a lower intensity red light, There shall be one dome light for front passengers and one for the rear passengers. If possible these lights should be included on the interior light timer.

23.8.3 Lights - Body

23.8.3.1 Rotating Beacon (2) required

Two (2) amber, rotating-light beacons (or rotating pattern), LED, multiple flash pattern, Hi – Low power controlled by a photo cell for day-night operation, SAE Class 1 (warning lights suitable for utility vehicles



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that work along roadsides) meant for applications on heavy duty trucks that experience higher than average vibration. Whelen R 416AF or equivalent.

23.8.3.1.1 Option #21: Rear amber/blue beacon on a separate switch (all blue alert lighting to be on a switch).

The Rear beacon is to be placed near the top of the body on the driver's side. Front beacon to be centered over the cab of the truck; mount should secure to the utility body – no holes in the truck cab where possible.

23.8.3.2 Spot Lights

Two (2) permanent mounted adjustable pivoting lamps. LED 12 Volt, 3000 effective lumens or better with switch mounted on light and in cab. Whelen MPBB, or equivalent.

23.8.3.3 One (1) wireless remote controlled adjustable work light. GOLIGHT STRYKER ST SERIES or equivalent.

23.8.3.4 Work Lights (6) required

Six (6) rubbers housed, swivel / tilt adjustable, work lights, LED, 700 Lumens or better. Whelen PSL14RB or equivalent.

23.8.3.5 Alert Strobe Lighting

Six flashing lights, amber/blue dual colour strobes, to be placed around the body at a height 60" from the ground. This lighting is intended to alert traffic from all directions. Exact location to be approved at Pre-Production meeting. Whelen Ion Series Duo or equivalent.

23.9 Hour Meter

Hour meter to display engine hours, OEM built in meter as part of the dashboard information display options is acceptable. If not available on the OEM display an aftermarket hour meter is required.



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24 Aerial Device

Each section of the hydraulic circuit (i.e. Aerial Device, Hydraulic Tool Outlet) to be supplied by a separate control valve and pressure regulator minimum

- State flow and pressure requirements in table below

Appendix 1

Hydraulic Circuit Section	Flow Rate Required (gal(US)/min <u>or</u> litres/min)	Pressure Required at Flow Rate (psi <u>or</u> MPa)
Aerial Device		
Wire Boom Lift with Roller		
Hydraulic Tool Outlet (On Body)		

24.1 Di-Electric Integrity - all references to electrical insulation referred to in this specification are to be 20 kV or better under current regulations and standards (referenced in section 1 and 24.4 below) unless otherwise stated

24.2 Aerial Device: Provide

Make _____ Model _____

Appendix 1

Type - Platform and Tower, refer to attached sketches Appendix 3

24.3 Challenger – Series 3400 or equivalent

Information about Challenger products may be found at:
www.delphibodyworks.com

Option # 22 Offering Alternative Aerial Device for TTC's consideration, please describe

24.4 Certifications:

All certifications to meet federal, provincial, and municipal and relevant governing bodies guidelines, codes, standards, and regulations, etc. and be certified, in all aspects, for operation by a registered Professional Engineer of Ontario qualified in the relevant fields.

- Relevant certifications include but may not be limited to...

- Material Handling Aerial Devices CSA Standard C-225-M88, Static Test CSA # B-154-2, Pot Hole Test CSA # B-154-2, and Modified Curb Test CSA # B-154-2,
- CSA C225-10/20 (Vehicle mounted Aerial Devices 5.4.2.4 and 5.4.3.3)
- CSA B354.2 – M82 (Self-Propelled Elevating Work Platforms for Use on Paved/Slab Surfaces)
- Di-Electric Testing
- OHSA Ontario Reg. 213/91 (Construction Project Regulations)
- ANSI A92.2 – 1990 (Vehicle Mounted Elevating & Rotating Aerial Devices)



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- Lift Safe (cable / rope platform truck specific) CSA Z259.16 with consideration for CSA C225.10 section 4.9.1 anchorages for fall protections
- CSA Z-259.11-M92 (Fall Arrest Regulations)
- CSA Z259.1.1-98 (Fall Arrest, Vertical Lifelines & Rails)
- CSA Z150 Lifting Devices, Cranes and Hydraulic Attachments – Visual, Magnetic Particle and Ultrasonic Inspections and Certifications

- All relevant certifications will shall be provided. Please state any relevant certifications not mentioned above
Appendix 1

24.5 Remote: The remote shall have a docking station for secure transport and charging in one of the compartments on the utility body. Two (2) remotes required per truck.

24.6 Wireless Anemometer Provision

A bracket will be required to secure the wireless anemometer instrument (less than 5 lbs). The location and dimensions are to be finalized at pre-production meeting. Bracket to be provided by Contractor.

24.7 Streetcar Wire Inspection

The vehicle will be driven along city streets at 8 km/h (437 ft./min) maximum while the platform is elevated but not rotated, with floor at 4.22 m (13'-8") above road surface, for streetcar wire inspection.

Streetcar Wire is not at a constant height and the operators will raise and lower the platform as the vehicle is being driven forwards and backwards.

Pole Work - vehicle will pull-up to the curb of city streets and the operators on the Aerial Device Platform will rotate the platform into TTC's Streetcar Power Supply Poles. The vehicle will be moved forwards and backwards to help position the platform at TTC's Streetcar Power Supply Pole. The completed vehicle is to be certified for this operation.

Vehicle will be certified for described operation.

Note: The completed vehicle is to be certified for this operation with the maximum allowable load on the platform (state maximum allowable load for this operation).

24.8 Side and rear platform railings lowered height 3.66 m (12'-0", 144") maximum to top of railings when lowered to 56 cm (22") from platform.
Railing step over height, getting into and out of platform not to exceed maximum noted above.

Note: Floor of Body Walkways to be same height as Aerial Device Platform in lowered Position

24.9 Platform Raised Height 7.62 m (25'-0", 300") minimum from ground to upper surface of platform floor.

24.10 Rotation - 360° continuous with infinite locking positions and interlock to ensure platform lifted clear of curb side Walkway Hand Rail before platform can rotate, must be capable of returning to storage position on a



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5% grade

24.10.1 Emergency Rotation: Unit to have method of emergency rotation (manual) in the event of a hydraulic failure. Emergency Rotation controls to be easily accessible and require minimal effort to complete rotation and return of platform.

24.10.1.1 Option #23: (Alternative): Non-Continuous Rotation - approximately 370° non-continuous rotation with end-of-travel limits and full-flow-hydraulic controls on the platform.

Return to Home Position: The platform to have a return to home feature that will automatically align and lower the platform to its home position for locking and storage, provided as a single button to be included on aerial device remote controller.

24.11 Wind Rating:

48.2 KMH Minimum at 18 Feet

TTC would like the ability to achieve the following ratings, state offer:

Appendix 1

50 KMH with gust up to 60 KMH at 20 feet

60 KMH at 10.5 feet -

Please state any, if required, additional ratings that would accompany the above.

24.12 Platform Dimensions: Approximately 4.45 m (14'-7", 175") L x 1.70 m (5'-7", 67") W
State offer

Appendix 1

24.12.1 Capacity: 454 kg (1,000 lb) lift directly over piston and 227 kg (500 lb) lift at end of platform

Platform to be mounted on the tower with the front edge of the platform approximately 1.14m (45" Forward of the centre line of the tower)

Platform to be insulated when in stored position

Stored position shall have an offset of up to 6 inches or 15 cm from center

Platform base to be durable and designed for many years of outdoor operation

Turret cover on platform to be flush mounted and dielectrically sealed to 20 kV. Turret cover shall be heavy duty. Low grade pool drain cover is not acceptable.

24.12.2 Kick Plate: To be at least 10cm (4") H around bottom to prevent tools, fasteners, etc. from falling

24.12.3 Deck Matting – Option #24: 3 mm (0.125 inch) or thicker, one-piece composite.

24.12.4 Drains: 7.5 cm (3") diameter minimum in each corner to allow rainwater to drain; must be heavy-duty.

24.12.5 Floor: Non-slip Line-X or equivalent, UV resistant, all weather, grey or yellow in colour to be installed over OEM fiberglass tub. No metal fastenings are to be used in order not to decrease dielectric protection.

24.12.6 Additional sacrificial flooring non-slip non-conductive UV resistant fine ribbed rubber flooring Robco



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SVFRBL36 or equivalent, bonded using Altrofix 30 two part polyurethane adhesive or equivalent to ¾ inch marine grade plywood subfloor backing. Sacrificial flooring is to be bonded to the fiberglass tub over the line-x covering. Sacrificial floor is to be sealed on all sides with drainage holes near perimeter using elastic bonding adhesive sealant Sikaflex 252 or equivalent.

24.12.7 Railings: Base railing to be permanently fixed heavy guard rail 56 cm (22") high with a folding upper railing to 1.07 m (42") high (refer to attached Appendix 3 - sketches) (TTC's existing Overhead Trucks can be examined after award of contract).

24.12.7.1 Material:

- Protector Strips - front and rear railings only, in raised position only, made of bolt-on replaceable weather-resistant polypropylene, intended to protect the railings from abrasion when in contact with overhead wire

24.12.7.2 Hardware: Railings to be equipped with large heavy-duty pins and keepers intended to hold railings in raised or lowered positions. Pins and keepers are to be easy for operators to assemble / disassemble while wearing winter gloves. All pins to be tethered to railing.

24.12.8 Sliding Rail Section – Option #25: The section rail at the rear passenger side, closest to the ladder may have a portion of the rail slide down to allow for increased shoulder space when climbing the ladder.

24.12.8.1 Rubber Bumpers: Mounted on lower railing intended to prevent upper railings from hitting the lower railing as vehicle drives over bumps, etc.

24.12.8.2 Handles: Railings to be equipped with large-area-handles (intended for operators wearing winter gloves) to raise and lower railings.

24.12.8.3 Hinges: Large, heavy-duty stainless steel, or equivalent. All protruding fasteners to be counter sunk and capped to protect against electrical contact.

24.12.9 Platform Supports: The platform is to be supported in the lowered / docked position by the chassis/support frame rails as much as possible (refer to attached sketch in Appendix 3). Platform support frame to be made of heavy gauge structural steel tubing, gussets, reinforced body floor, shear plates, etc.

Platform support frame to include heavy-duty rubber-coated-rest-saddle Versalift model # 26464-1, or equivalent

Information about this Versalift product may be found at:

<http://store.versalifteast.com/store/p/85-Boom-Rest-Saddle.html>

24.12.10 Travel-securing device (Docked Position – Lock): Platform is to be secured by a locking device that this lock is hydraulically operated. The lock should open only when the PTO is engaged and lock 10 seconds after it is disengaged. An indication in the cab to alert the driver is required.

24.12.11 Fall Protection System

At least six (6), lanyard attachment points, mounted on platform sides near floor to be provided.

Lanyard attachment points and method of fastening to the platform to be certified by the appropriate governing body for operation in Toronto, Ontario, Canada. If required under relevant code, guideline, etc. for the size of platform, then additional attachment points may be required.

Platform lanyard attachment points to be certified for fall protection with platform railings at 56 cm (22") from



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the platform floor.

- Possible relevant codes may include, and may not be limited to, CSA-Z259.11-M92 and CSA-Z259.2.1-98
- Note: Current standards require lanyard attachment points to be rated for a minimum load of 22.2 kN (5,000 lbs) per person

SayfGlida horizontal fall protection – or equivalent

24.12.12 Height Warning Light

Weatherproof amber light approximately 10 cm (4") diameter to be provided. Light to be mounted on the body and face upward so as to be seen by operators on the platform standing at the front platform controls. Light shall turn off when platform is in docked / stored position. Light shall turn on and remain solid until the lowest point of the platform has reached a height of 4.42 m (14'-6").

Light shall flash continuously while the lowest point on underside of platform is above 4.42 m (14'-6"). Light is intended to inform operators when the platform is above the maximum height of other vehicles per Ontario Highway Traffic Act, Part VII, 109. (14), 110. (1)

24.12.13 Grip Strut: Where requested Grip Strut, or equivalent, is to be provided Stainless Steel or aluminum. See section 11.1.2

24.12.14 Beacon Lights: Two (2) amber, strobe (Grote model # 77103), Whelen R316, or equivalent mounted at underside-rear-outside-corners of platform supports intended to alert on-coming traffic when platform is elevated. To be activated as the platform is lifted above the docked / stored position

24.12.15 Tool Box: PVC (or non-conductive) toolbox. Dimensions to be approved at Pre-Production meeting. Protek Body Overhead Utility Storage Box or equivalent. Toolbox to be fastened securely to the platform at the forward end.

24.12.16 Insulators: Platform insulators to be "outdoor" UV rated ceramic type. Mushroom style, rated for 20kV or better.

24.12.17 Chassis Level Indicator: One (1) to be mounted in cab to aid driver in parking in most level location, one (1) to be mounted at rear of body with swing out feature to check level in both planes.

24.12.18 Circuit breakers to be provided (fuses not acceptable)

24.12.19 Control Decals and Placards

Control designations to be engraved on metallic plates or Lamicoids and not prone to wear or weathering (tape labels not acceptable).

Maximum height of vehicle (in meters and feet and inches) to be stated and located near driver and passenger doors

A clear polycarbonate (such as Lexan) protected and water-proof-sealed laminated-drawing showing the operating envelop, height-weight-speed limits with elevated platform, etc. to be mounted beside each control station and in cab.



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24.13 Hydraulic System

24.13.1 Pump

Make _____ Model _____
Pressure _____ Flow Rate _____

Appendix 1

Pump to be appropriate size and type for providing full hydraulic flow to all systems on the completed vehicle. Hydraulic drive to be provided (belt drive not acceptable).

24.13.2 Reservoir

To be appropriate size for the system and allow proper oil cooling (the reservoir will be at least 76 litres (20 gal US)).

- 24.13.2.1 Water separator sump oil level and temperature indicator shall be easily viewable through the service panel (without removing or opening panels). Reservoir to be mounted so as not to crack with flexing of chassis frame or tank mounting frame.
- 24.13.2.2 Reservoir heater: If available, to be included. Should be switched or active only when ambient temperature is below 5°C.
- 24.13.2.3 Filler Tube: To be elevated from the tank by several inches.
- 24.13.2.4 Filler Cap: To be water proof to prevent water entering hydraulic system when vehicle is being power-washed
- 24.13.2.5 Air Filter / Breather: To be water proof to prevent water entering hydraulic system when vehicle is being power-washed
- 24.13.2.6 Filter Appropriate micron size and surface area for hydraulic flow rate and not requiring frequent changing out of hydraulic filter. Filter is expected to last six months.
- 24.13.2.7 Drain Plug Magnetic to be provided
- 24.13.2.8 Oil Cooler - To be provided for warm weather operation.
- 24.13.2.9 Piping: All appropriate check valves, isolation valves, drain valves, etc. to be provided, fitted with shut-off valves to facilitate changing filter elements.

24.13.3 Tool Connection

One (1) set of hydraulic tool outlets to be located on the body at rear of vehicle (mounting location to be determined after award of contract).

Tool outlets shall be able to accommodate high pressure intensifier.

Pressure gauge shall be clear to operator –

Outlets to be activated by pulling/pushing a valve located beside each set of outlets.

Outlets to be designed to accommodate “centre-dump” tools but relief valves to be installed that will dump if the tool activation valve is pulled/pushed without a tool being connected.



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Tool outlets will be used to operate cable cutter, splicer, sleeve connector, drill, tree trimmer, and pruner.

Existing tools and outlets may be examined after award of contract

Tools Specifications: The following describes the hydraulic tools TTC commonly uses

Type:	centre-dump
Flow Rate:	18.9 to 26.5 litres/min (5 to 7 gpm(US))
Minimum Operating Pressure:	10.3 MPa (1,500 psi)
Back Pressure:	689 kPa (100 psi)

24.13.3.1 Couplings: No-Spill, Flush-Face Couplings, nominal 3/8, compatible with ISO 16028

24.13.3.2 Labels: All fittings to be clearly labeled in a large font: "Std-Flow" or "High-Flow" as appropriate, with permanent durable labels (i.e. Lamicoid or stamped metal).

24.13.4 Controls: Shall be configured to protect against any unintended actuation of the boom-positioning controls at the platform, the use of an unlocking or enabling device shall precede the use of the control itself (ref CSA 225)

24.13.4.1 Elevation, rotation, and buzzer controls to be provided

24.13.4.2 Design of the aerial device to include protection within itself and its contents to ensure the system cannot be structurally damaged in any way by inappropriate use of its controls (i.e. activation more than one (1) lever at a time shall not damage the system). Each movement to be controlled by a separate lever (i.e. raise/lower with one lever, clockwise and counter-clockwise rotation with a second lever) (combination joystick not acceptable).

24.13.4.3 All controls shall be spring centred to a neutral position and provide a fail safe operation

24.13.4.4 The control levers shall be protected by a guard to prevent the operator's hand from coming into contact with the other structures.

24.13.5 Emergency Controls: Full-flow-hydraulic at passenger side in compartment, one (1) control set intended to be used if operators on platform are unable to use controls. Emergency controls are intended to override all other controls and provide emergency rotation and lowering. Provide service access cut-out in protective screen (19.6.22) to provide emergency access to lower controls.

24.13.6 Transmitter: Two (2) HBC Radiomatics or equivalent per vehicle - 1 as primary, 1 as backup. Weatherproof, high-impact, low-temperature, 16 proportional functions and up to 15 discrete functions complete with red E-Stop button.

24.13.7 Receiver: Proportional Outputs - for platform lifting and lowering, platform rotation clockwise (CW) and counter clockwise (CCW)

Digital Outputs - sufficient ON/OFF outputs for all other platform controls and buzzers, and E-Stop Omnex model # R160 receiver or equivalent

- Information about this Omnex product may be found at: <https://www.opscontrols.com/product/15-002-r160-000548/>

24.13.8 Alternative 'Controls' – Option #26: TTC will evaluate alternatives if offered



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25 Wire lifting Device:

The lifting device will support the installation (stringing) and tensioning operations of the overhead Contact Wire.

The maximum downward force experienced is expected to be 800 lbs. The tensioning guide shall be able to accommodate vertical, longitudinal and transversal forces developed during operations described as:

- The maximum tension applied through the cable during these stringing operations to be considered is 680 kg (1500 lb).
- Contact Wire entry to wire raiser is variable but has a maximum range from 2 m (6 ft) elevation (from cable reel/tensioning device) to a maximum of 5.6 m (18 ft 6 inches) at the wire raiser where it is then at the elevation of the overhead system.
- The distance between the cable reel / tensioning device and the wire-raiser guide is minimum of 15 m (50 ft).
- Contact Wire is stretched between blocks to establish "Stagger" and is limited to 200 mm off-set from centreline to either side mm over a 30 m span (total stagger 400 mm).
- Contact Wire used is: 4/0, Grooved Copper Magnesium 0.2 Trolley Wire Alloy; Area - 211600 circular mills; area – 0.1665 sq. in.; weight – 3,389 lb/mile

This lift to be hydraulically operated. Hydraulic operation of the lifting device shall not under any circumstances function when unintended or un-authorized. No part of the hydraulic mechanism shall permit entry or accumulation of water or moisture that would inhibit the function of the wire raiser.

The top of the wire raiser shall be made of non-conductive heavy duty material on rollers and is to be isolated from the chassis as outlined in the General specification. Please see sketch in Appendix 3 for possible placement of the wire raiser. It is also expected that this feature will be mounted above the service body with support structure extending through the service body to maximize storage space.

The lifting device shall be remote controlled wirelessly and shall incorporate an operator presence switch that inhibits unintended actuation.

- 25.1 Option #27 Integrated Wireless Remote: The wireless controller function to be integrated into the Aerial Device wireless controller and shall independently permit operation of the Wire raiser when requested.



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26 Manuals – Aerial Device

Manuals for Aerial Device, Wire Lifting device and all accessories to be provided	CD-ROM or DVD (1 Copy)	Printed (2 Copies)
Aerial Device - Mechanical Parts Manuals (including parts list, exploded assembly drawing OEM, and OEM part number)	One (1) Electronic	
Aerial Device - Mechanical Maintenance Manuals	One (1) Electronic	
Aerial Device - Mechanical Service Manuals (if different from Mechanical Maintenance Manuals)	One (1) Electronic	
Aerial Device - Hydraulic System Manuals (including schematics, parts list, OEM, and OEM part number)	One (1) Electronic	
Aerial Device - Electrical Manuals (including schematics, OEM, and OEM part number)	One (1) Electronic	
Aerial Device - Detailed Maintenance	One (1) Electronic	
Aerial Device - Other (state)	One (1) Electronic	
Aerial Device - Other (state)	One (1) Electronic	
Aerial Device - Operator Manuals	One (1) Electronic Format Copy	Two (2) printed copies to be provided including one in the vehicle
Wire Lifting Device – Operation, Maintenance and Parts	One (1) Electronic	One (1) Printed

27 Warranty – Aerial Device: Warranty - complete all applicable warranty information

	Time	Mileage	State Address (with Phone Number) Where Warranty will be Honoured
Aerial Device - Hydraulic System			
Aerial Device – Platform			
Aerial Device – Frame			
Aerial Device - Other (state)			
Aerial Device - Other (state)			



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Aerial Device - Other (state)			
Wire Lifting Device			

Appendix 1 – Technical Requirements

The Contractor shall provide technical details for features identified as requiring further description on what is proposed in the Specification in Appendix 1 Technical Requirements and provide the technical description of their offering as specified in the Specification Technical Requirements within 10 days from the Notification of Award.

13.1 Certifications

If required by regulation, legislation, or other, then the installation company to have a Canadian Motor Vehicle Safety Standards (CMVSS) certificate (state certificate #).

14.1 Year: _____ Make: _____ Model: _____

Criteria	Offer (+/- 4 feet or 1.2 meters)
Turning Radius Right – Wall to Wall	Appendix 1
Turning Radius Left– Wall to Wall	Appendix 1
Turning Radius Right – Curb to Curb	Appendix 1
Turning Radius Left– Curb to Curb	Appendix 1
Turning Radius Right – Inside	Appendix 1
Turning Radius Left – Inside	Appendix 1

14.3.1 Payload

14.3.2 Tires Front: size / Make-model

14.3.3 Tires Rear: size / Make-model

14.3.8 Axle Ratio

14.3.12 Cab to Axle (CA)

14.3.13 Payload CG from Front Axle

14.3.14 Wheelbase

14.3.16 Overall Length



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19 Body: Make / Model

19.1.3 Hydraulic Tool Outlets – Flow Rate

19.1.4 Hydraulic Tool Outlets – Pressure at Flow Rate

24 Aerial Device Hydraulics – Flow and Pressures for accessories

- Aerial Device
- Wire Lift
- Hydraulic Tool Outlet

24.2 Aerial Device Make / Model

24.4 Additional Certifications

24.11 Wind Rating at 10.5 ft; at 18 ft; at 20 ft

24.12 Platform Dimensions

24.13.1 Hydraulic System – Pump: Make / Model



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Appendix 2- Radio Specification

Mobile Radio -

Tetra digital radio is not required to be installed by the Contractor, however the rough in is required as defined below. Equivalent parts will be validated by TTC Radio Shop. A request should be made prior to the close of the bid submissions to ensure any equivalent parts are validated by TTC. Please note TTC can provide a sample radio and components if it is available. Please see Radio Appendix for the installation guide.

Components to Be Installed & Wire Rough-In To Be Completed By Contractor:

- Antenna & Antenna Cables
 - The Radio and GPS Antennas can be separated or combined into one antenna. TTC's preference is to use the combined radio/GPS antenna.
 - GPS antenna will be active with 5v nominal supplied on the center pin, 40 mA maximum
 - Combination Radio/GPS Antenna: 380 to 430 MHz Flexi-whip/GPS vehicle Antenna with 2dBi gain
 - Cable: GPS cable should be terminated with SMC female connector, RF antenna cable should be terminated with a BNC cable
 - Sepura Part Number: 360-00001 [Combination Antenna]
- Power Harness
 - Sepura Part Number 300-00066
 - Vehicle harness with 12 v supply protected with a 10A fuse for power and 1 A for ignition, minimum 18 ga. ground and power wire.
 - Radio shall be wired so that it is live all the time, direct to battery through a Chargeguard as outlined in specification. TTC considers the radio the same as a safety device.
- Console and Transceiver can be mounted separately or together depending on space available
- It is TTC's preference to mount the radio in a location within reach of the driver and does not interfere with the safe seating of passengers. If this vehicle is equipped with an after-market console, then the wiring is to be routed to the console Location to be finalized at pre-production meeting
- Console to Transceiver Cable, one of (depending on transceiver location):

Description	Sepura Part number
Remote console cable, 0.5m	300-00067
Remote console cable, 2m	300-00068
Remote console cable, 3m	300-00664
Remote console cable, 5m	300-00069
Remote console cable, 7m	300-00665
Remote console cable, 10m	300-00070
Remote console cable, 12m	300-00666

- Console DIN Mounting
 - DIN fitting kit Sepura Part Number: 300-00804
- Loudspeaker
 - Can be wired to the vehicle's front drivers speakers or use a loud speaker



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- Low profile loudspeaker Sepura Part Number: 300-00719
- Extension cable Sepura Part Number: 300-00082
- Fist Microphone Clip
 - Mounting holes/location for microphone clip to be provided.



Fist Microphone Mounting Clip

TTC will supply SRG 3900 Transceiver, Console Head, and Speaker/Fist Microphone. Console head is Sepura part number: 300-00771 as a reference
Components may be purchased from:

Federal Wireless Communications Inc.
<http://www.federalwc.com>

Wiring Rough-In - Antennae mounting location and wire rough in terminal locations to be determined after award of contract



Console and Transceiver

Parts Summary

- A summary of all the parts the Contractor will require for each vehicle

Description	Sepura Part No.
Combination Antenna 380-430MHz flexi-whip/GPS vehicle antenna, 5m cable, 2dBi	360-00001
Console to Transceiver Cable (Choose one)	
Remote console cable, 0.5m	300-00067
Remote console cable, 2m	300-00068
Remote console cable, 3m	300-00664



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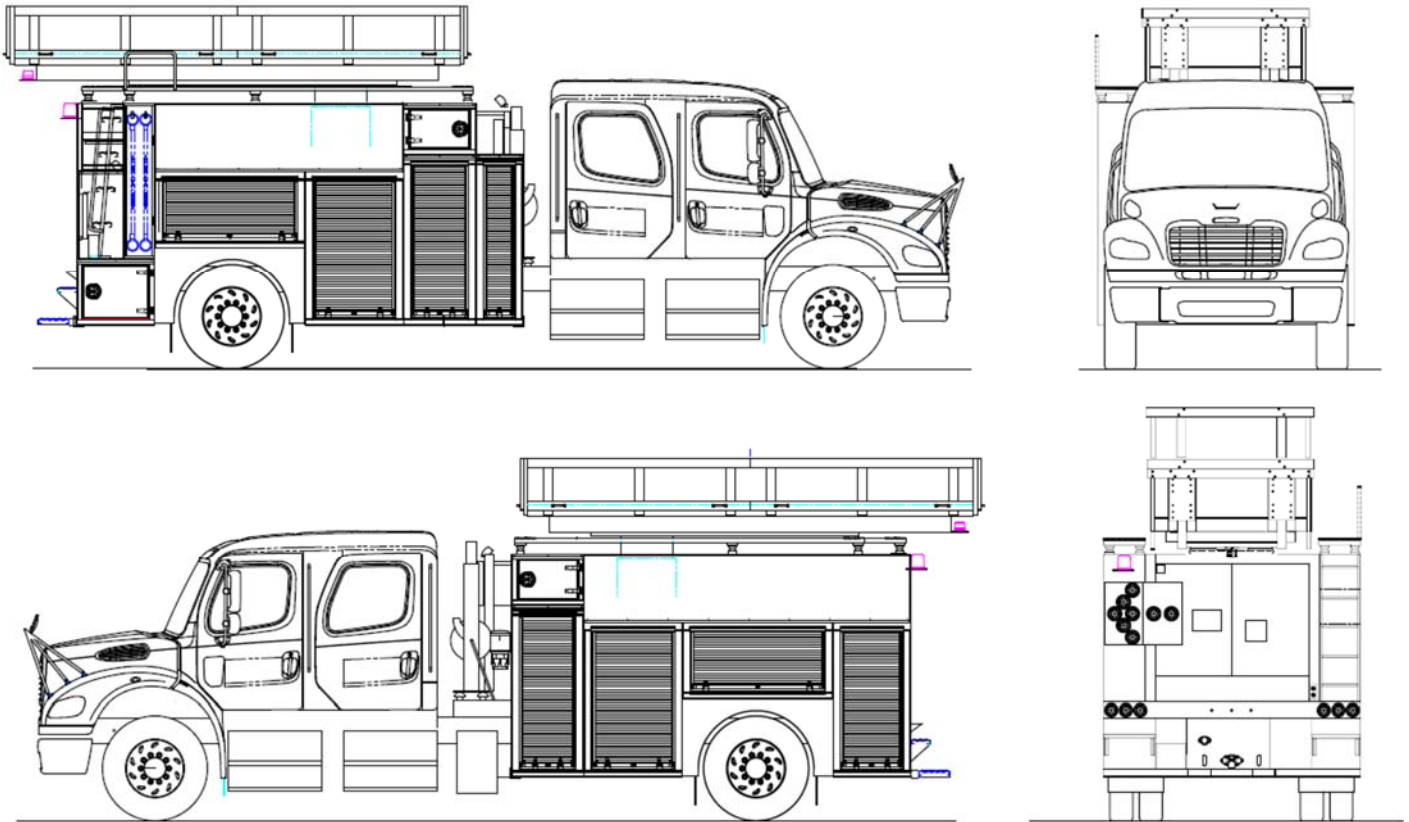
Remote console cable, 5m	300-00069
Remote console cable, 7m	300-00665
Remote console cable, 10m	300-00070
Remote console cable, 12m	300-00666
Power Harness	
Vehicle harness with 12 v supply, ground and ignition wire	300-00066
Console DIN Mounting Kit	
DIN fitting kit	300-00804
Loudspeaker	
Low-profile loudspeaker	300-00719
Extension cable (5m)	300-00082



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Appendix 3

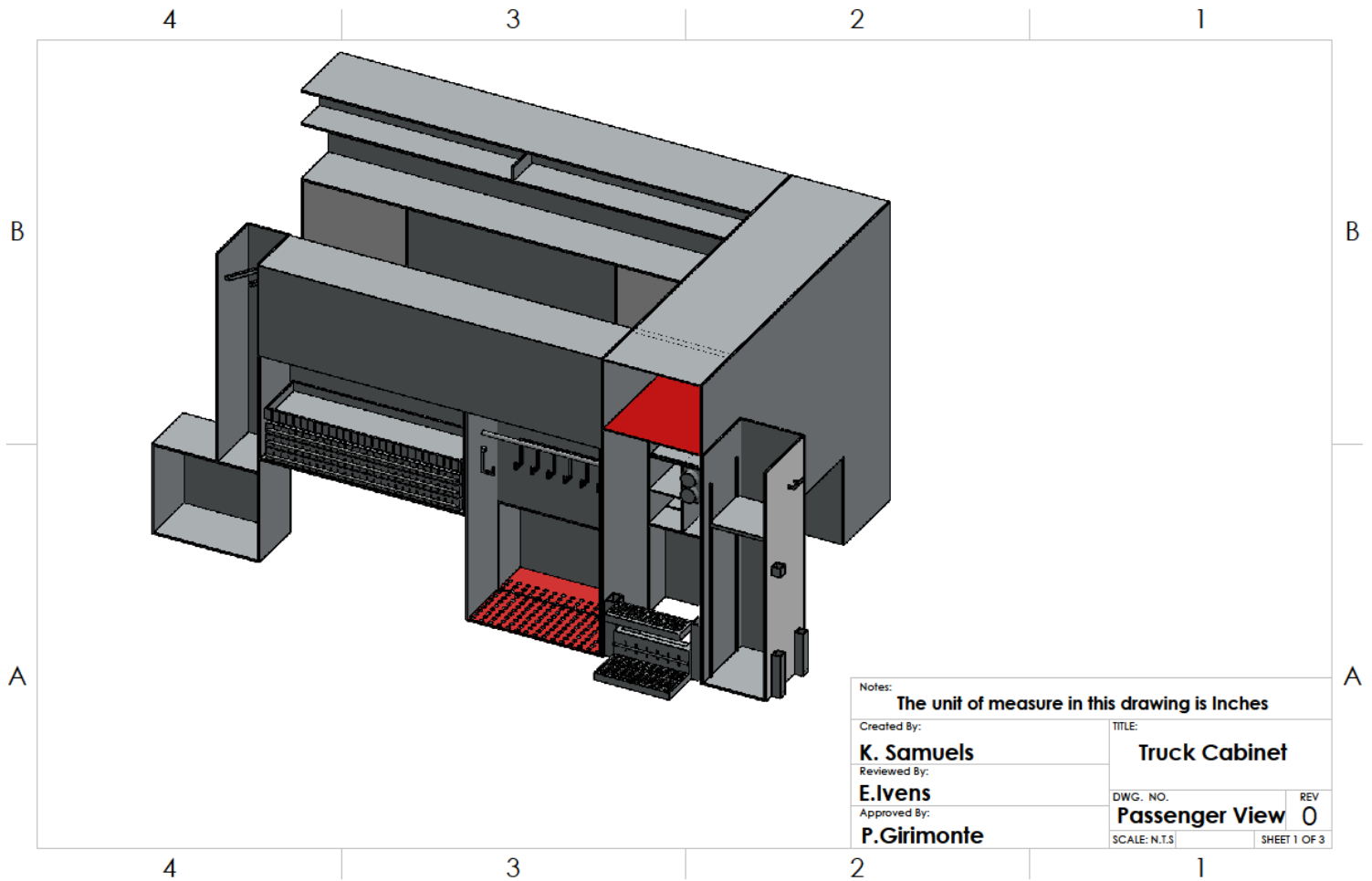
Sketches



Shelving – equipment storage compartments configuration – example. Details to be confirmed after Notification of Award



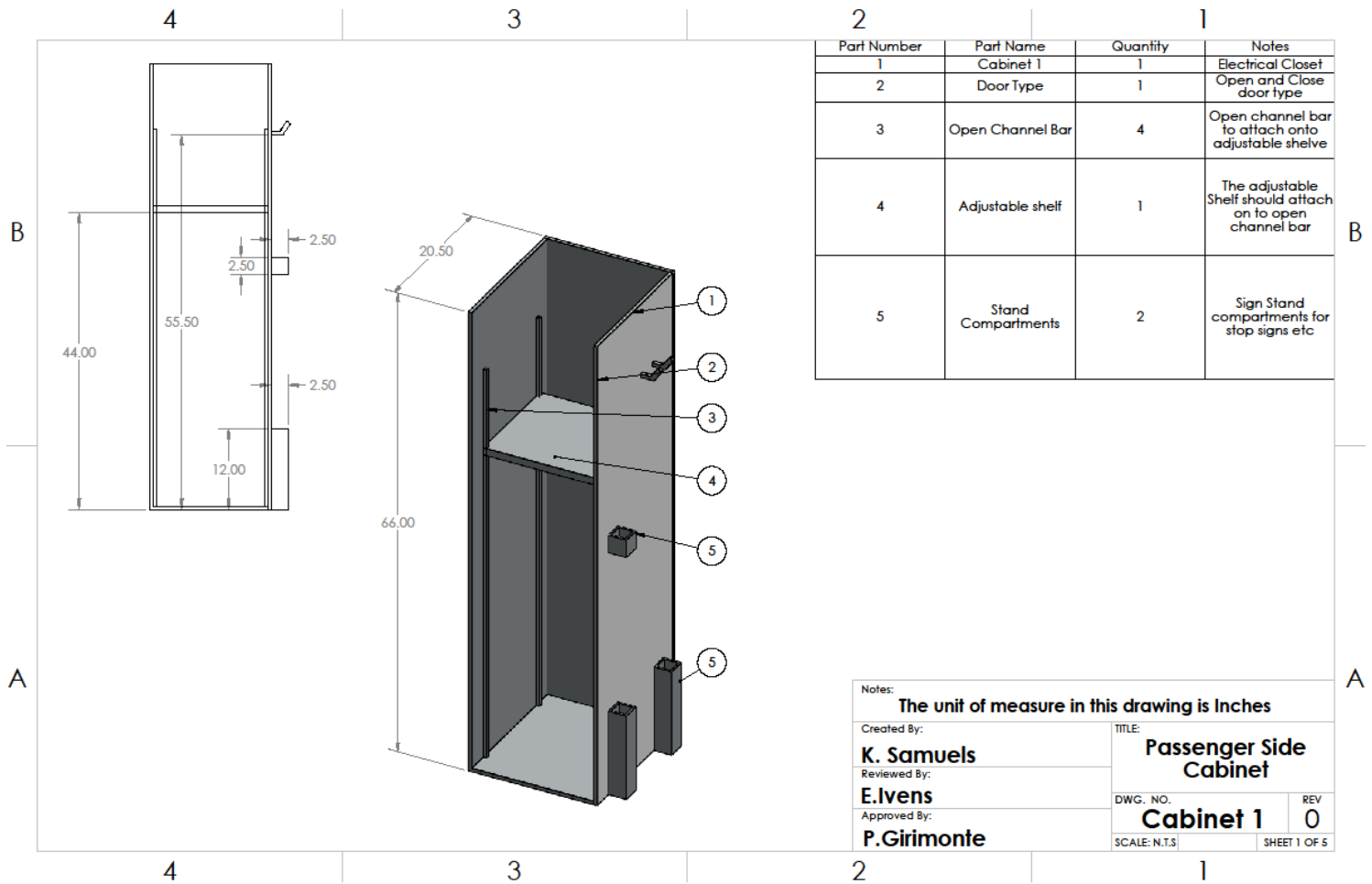
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Vehicle Cabinets – General Arrangement – 3 Pages



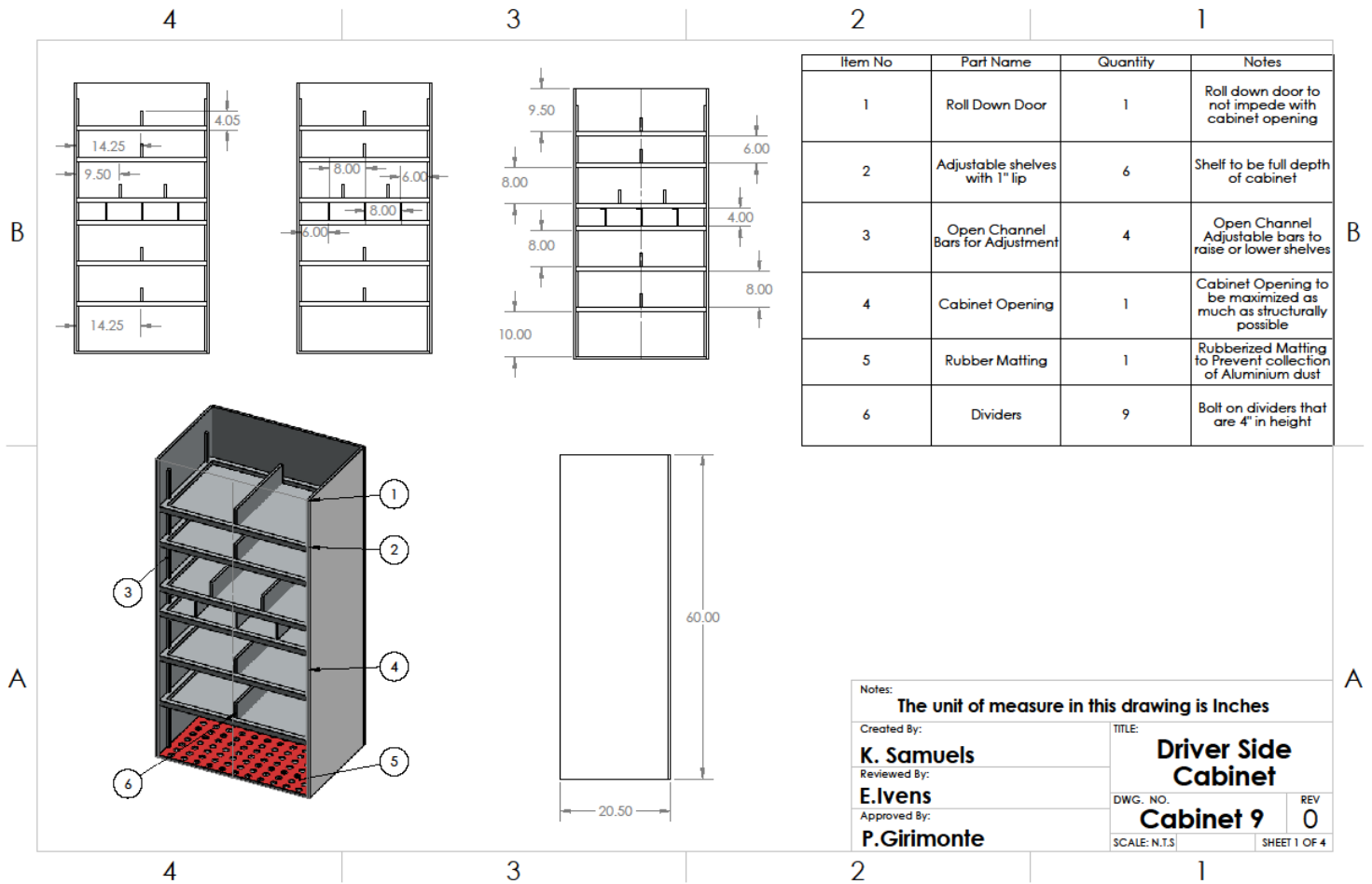
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Passenger side Cabinets Detail – 5 Pages



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Appendix 4 Milestones - Example

Note that the table below is given as a reference for the milestones that TTC would like to track and be reported on for this project. This table is for information purposes only.

Milestone (Reference only – do not fill out table)	Owner	Required Date	Achieved Date
Notification of Award	TTC		
Preproduction Meeting – Complete Vehicle Build	Contractor		
Preproduction Meeting – Cab and Chassis	Contractor		
Preproduction Meeting – Body	Contractor		
Preproduction Meeting – Aerial Device	Contractor		
Preproduction Meeting – Upfitting	Contractor		
Pre-paint Meeting	Contractor		
First Pre-Delivery Inspection	Contractor		
First Chassis received by TTC	Contractor		
Remaining Chassis received by TTC	Contractor		
All chassis received by TTC	Contractor		



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Appendix 5: Decal Package Placement

1.0 Purpose

This procedure provides maintenance personnel with instructions for the placement of TTC Specific Decals required on Roll-Off Trucks

2.0 Scope

The following information is included:

TTC Logo Location – intended to have 360-degree visibility to identify vehicle as TTC property, refer to drawing below

RH / LH Door on center below window and at the rear as close to centerline where space is available on body

Unit number placement (see photos above) – intended to have 360-degree visibility to identify machine as TTC property where practical.

Front CS / RS as shown on front fender below headlamp, RH / LH Door on center 6" to 10" below window and on Roll-off Body at rear as close to vertical centerline where space permits above or within close proximity of TTC Logo and each side centered along top edge (see photo).

No Smoking – No Vaping Decal Placement positioned on RH / LH doors above door handle

Red vinyl wrap - 3M Wrap Film Series 2080 Vinyl 3M 2080-G83 Gloss Dark Red Wraps - vehicle roof and hood as shown



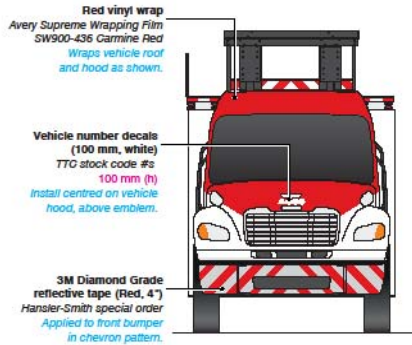
SPECIFICATION FOR VOCATIONAL TRUCK WITH WORK BODY AND VERTICAL AERIAL PLATFORM PB # 2310

Avery Supreme Wrapping Film
SW900-436 Carmine Red

NOTE: All dimensions and placements
to be confirmed on vehicle

Note:

- Decals to be produced as per TTC Specification #12761
- Production graphics and colour specs to be provided by TTC – Design and Wayfinding.



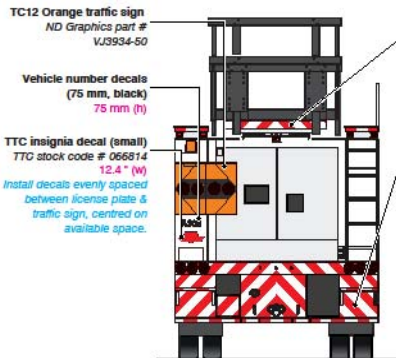
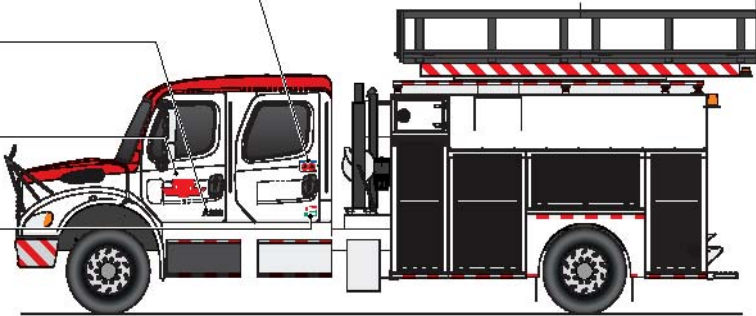
No smoking/no vaping decal
TTC stock code # 079760
200 mm (W) x 120 mm (H)
Install 45mm above door handle,
aligned with rear edge of door handle.

Vehicle number decals (75 mm, black)
75 mm (H)
Install 80mm from bottom of door,
aligned with rear edge of door handle.

TTC insignia decal (medium)
TTC stock code # 066812
21.5" (W)
Install on door, centred in space below window.

Fire extinguisher decal
TTC part # 080960
150 mm (W) x 50 mm (H)
Align decals vertically with 10 mm between decals.
Install 80mm from bottom of door, aligned with
rear edge of door handle.

First aid kit decal
TTC part # 079629
150 mm (W) x 50 mm (H)
Align decals vertically with 10 mm between decals.
Install 80mm from bottom of door, aligned with
rear edge of door handle.

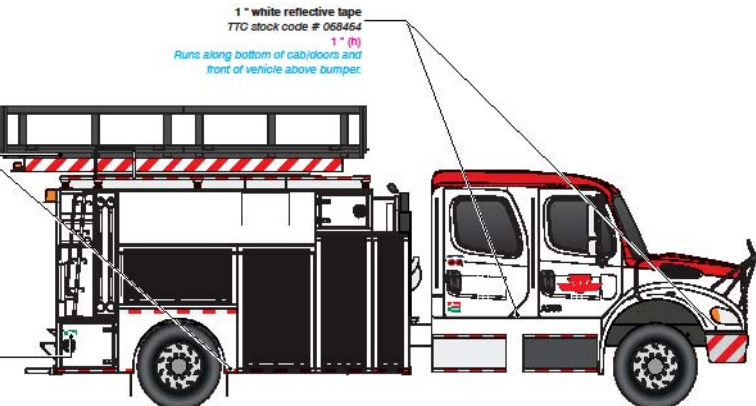


3M Diamond Grade reflective tape
(Red/White Chevron)
ND Graphics custom order
Cut to size and applied to sides of deck
and rear of vehicle as shown.

3M Diamond Grade reflective tape
(Red/White, 1")
TTC stock code # 030157
1" (H)

3M Diamond Grade reflective tape
(Red/White, 2")
Hanster-Smith part #983-362 PN67535
2" (H)
Applied to edges of platforms and along
bottom sides of truck as shown.

Spill response kit decal
TTC stock code # 082105
150 mm (W) x 50 mm (H)
Install 50mm from top of cabinet handle,
aligned with left edge of cabinet handle.



**Design and
Wayfinding**

DEPARTMENT
Marketing and Customer Experience
ADDRESS
1900 Yonge St, Toronto, ON M4G 1Z1

PROJECT
Non-revenue vehicle livery
Overhead Truck

Livery & standard decals
Overhead Truck (Alan Fyle)

SCALE
1:45

PREPARED BY
Alec Blackwell

DATE
September 28, 2023
ISSUE
3

PAGE NUMBER
1 of 2

Livery Drawing – Decal Placement – 2 pages



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TTC Livery Decals Location

Name	Image	Size	Location	Location Image	Link	Sticker ID
Limits Of Approach		4 5/8" x 3 5/8"	Top of Deck on Toolbox		IHSA Products	S096
Are you Putting Me On?		5" x 3 13/16"	Behind Ladder where Crews climb to deck		Are You Putting Me On Sticker (ihsa.ca)	S092
Rescue Equipment Located Here		4" x 4"	Cabinet 1: Driver Side Slide Door		IHSA Products	S094
Report All Accidents Sticker		15" x 5"	Vehicle Cabin: Rear Passenger area Glass		IHSA Products	S008

Decal Details – wording size and locations (5 pages)

3.0 References

Existing Vehicle A302 / A303; Freightliner M2 106 Crew Cab

4.0 Parts List

4.1 TTC Supplied Decal Package

Ref #	Description	Manufacture	Part #	TTC Stock Code	Qty.
1	Decal – TTC logo			066814	4
2	Decal – No Smoking/Vaping			079760	2
3	Decal – Fire Extinguisher			080960	2
4	Decal – First Aid Kit			079829	2
5	Decal Unit Number	TTC		n/a	7
6	Decal – Spill Response Kit	TTC		082105	1



SPECIFICATION FOR VOCATIONAL TRUCK WITH WORK BODY AND VERTICAL AERIAL PLATFORM PB # 2310

4.2 Contractor Supplied Decals

Ref #	Description	Manufacture	Part #	Link	Qty.
1	Red vinyl wrap	3M	3M Wrap Film 2080-G83 Gloss Dark Red		A/R
2	1 " white reflective tape	3M	3M Scotchlite Reflective Film Series 680 3M 680-10 White		A/R
3	Decal – Limits of Approach	IHSA	S096	https://www.ihsa.ca/IHSA/Products/	1
4	Decal – Are You Putting Me On	IHSA	S092	https://www.ihsa.ca/IHSA/Products/	1
5	Decal – Rescue Equipment Located Here	IHSA	S094	https://www.ihsa.ca/IHSA/Products/	1
6	Decal – Report All Accidents...	IHSA	S008	https://www.ihsa.ca/IHSA/Products/	1
7	Decal – Use Your Harness	IHSA	S042	https://www.ihsa.ca/IHSA/Products/	1
8	Decal – Circle Your Vehicle	IHSA	S029	https://www.ihsa.ca/IHSA/Products/	1
9	Decal – Three Point Contact	IHSA	S101	https://www.ihsa.ca/IHSA/Products/	1
10	Decal – Danger Electrocution Hazard			See Decal Details	2
11	Decal – Beware You Must Not Operate			See Decal Details	1
12	Decal – Danger (Death or Serious Injury)			See Decal Details	2
13	Decal – Electrocution Hazard (2)			See Decal Details	1
14	Decal – Danger Falling From Platform			See Decal Details	1
15	Decal – Platform Must Be Raised			See Decal Details	1
16	Danger – An Untrained Operator			See Decal Details	1