



REQUEST FOR PROPOSAL

THE SUPPLY AND DELIVERY OF A MULTI-PURPOSE COMMAND VEHICLE

RFP NUMBER:

PS20110789

Issue Date: December 16, 2011

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COMMAND VEHICLE

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PART A - INTRODUCTION

1.0 OVERVIEW OF RFP

1.1 This Request for Proposal ("RFP") is an opportunity to submit Proposals for the City's review and, depending on the City's evaluation, to negotiate with the City to finalize and execute a contract for the supply and delivery of one (1) Multi-Purpose Command Vehicle to the Vancouver Police Department.

1.2 This RFP consists of 4 parts:

- (a) PART A - INTRODUCTION: This part sets out the key dates and contact information for the RFP process;
- (b) PART B - INSTRUCTION TO PROPONENTS: This part contains an overview of the project and the RFP process, including the terms and conditions governing the RFP process;
- (c) PART C - FORM OF PROPOSAL: This part contains the format and information requested by the City to be contained and submitted in the Proposal. The Proposal should be submitted in a two envelope system: Commercial Proposal and Management Proposal; and
- (d) PART D - FORM OF AGREEMENT: This part contains the City's proposed terms and conditions for the Agreement that will be executed between the City and the successful Proponent, if any.

2.0 KEY DATES

2.1 Proponents should note the following key dates:

| Event | Time/Date |
|------------------------|---|
| Deadline for Enquiries | Tuesday, January 17, 2012 Enquiries received during the final five (5) days before the Closing Time may not be processed and may not receive a response. The City's Purchasing Services Office is open on Business Days from 8:30 am to 4:30 p.m. and closed Saturdays, Sundays, and holidays. |
| Closing Time | 3:00:00 pm (PST) Tuesday, January 24, 2012 |

3.0 CONTACT PERSON

3.1 The Contact Person for this RFP is:

Gordon Harvey, SCMP
Fax: 604.873.7057
E mail: purchasing@vancouver.ca

3.2 Proponents shall direct all enquiries, in writing, to the Contact Person. Telephone enquiries are not permitted.

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4.0 CLOSING TIME

- 4.1 Proponents should submit their Proposals on or before the date and time as specified in Section 2.1 (the "Closing Time"). Closing Time and "Vancouver time" will be conclusively deemed to be the time shown on the clock used by the City's Purchasing Services Office for this purpose.

5.0 DELIVERY ADDRESS FOR PROPOSALS

- 5.1 Proponents shall submit their Proposals to the following address:

City of Vancouver Purchasing Services Office
3rd Floor, East Tower, Suite 310, 555 West 12th Avenue
Vancouver, British Columbia, Canada, V5Z 3X7

Proposals submitted by fax or email will not be accepted.

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PART B - INSTRUCTIONS TO PROPONENTS

In this RFP, capitalized terms have the meanings set out in Section 24 (Definitions) of PART B - INSTRUCTIONS TO PROPONENTS and in PART D - FORM OF AGREEMENT, except where otherwise expressly provided or the context otherwise requires.

1.0 OVERVIEW

- 1.1 This RFP identifies a business opportunity for the successful Proponent to provide a quantity of one (1) Multi-Purpose Command Vehicle. The primary application for this unit is a mobile command post for the Vancouver Police Department (VPD).
- 1.2 The City is requesting Proposals from interested firms with expertise in the design and build of a one (1) truck chassis with a mounted truck body based on the specifications provided.
- 1.3 The purpose of this RFP is to select a Proponent with the capability and experience to efficiently and cost-effectively satisfy and deliver all of the requirements described in this RFP.
- 1.4 The successful Proponent will be the Proponent who offers the best value which will be assessed in the City's sole and absolute discretion as a combination of experience, pricing, scope, duration and level of services offered, proposed innovative design, and operations and maintenance enhancements.
- 1.5 The requirements are as envisioned by the City at the time of writing, but may change or be refined in the course of the evaluation and award process.

2.0 ADMINISTRATIVE REQUIREMENTS

- 2.1 It is the sole responsibility of all Proponents to check the City's website at: <http://www.vancouver.ca/fs/bid/bidopp/openbid.htm> regularly for amendments, addenda, and questions and answers to this RFP.

3.0 INFORMATION MEETING - Intentionally Omitted

4.0 CONDUCT OF RFP - INQUIRIES AND CLARIFICATIONS

- 4.1 The City's Director of Supply Management will have conduct of this RFP, and all communications shall be directed only to the Contact Person.
- 4.2 It is the responsibility of all Proponents to thoroughly examine these documents and satisfy themselves as to the full requirements of this RFP. Inquiries shall be in written form only, e-mailed or faxed to the Contact Person as set out in PART A - INTRODUCTION. If required, an addendum will be issued and posted on the City's website as outlined above.

5.0 CONTRACT REQUIREMENTS

- 5.1 Proponents should indicate the extent to which the Form of Agreement is consistent with their Proposal. If the Proposal is inconsistent with the Form of Agreement, the Proponent should provide alternative contractual language in their Proposal.
- 5.2 Where the head office of the successful Proponent is located within the City of Vancouver and/or where the successful Proponent is required to perform any work at a site located within the City of Vancouver, the successful Proponent is required to have a valid City of Vancouver business license prior to signing the Agreement.

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6.0 PRICING

- 6.1 Pricing is to be submitted, as part of the Commercial Proposal, in a separate envelope/package from the Management Proposal.
- 6.2 Prices quoted are to be exclusive of HST but inclusive of all other costs including, without limitation, freight, unloading at destination, import duties, taxes (other than HST), brokerage fees, royalties, handling, overhead and profit.
- 6.3 Prices shall be quoted in Canadian currency.

7.0 SUBMISSION OF PROPOSALS

- 7.1 The submission instructions for Proposals are provided in Part C - FORM OF PROPOSAL. Proposals should be submitted in a two envelope/package system (Commercial Proposal and Management Proposal, as separate envelopes/packages) clearly marked with the *Proponent's Name, the RFP title and the RFP reference number. The Commercial Proposal and Management Proposal should be clearly identified and distinguishable.*
- 7.2 Proponents should submit four (4) hard copies of their Proposal in two parts as further described in PART C - FORM OF PROPOSAL (Management Proposal and Pricing Proposal) in three-ring binders, with each section tabbed and including all accompanying schedules, appendices and addenda. Proponents should also submit one (1) electronic copy of their Proposal in the same format described above on CD.
- 7.3 Only the English language may be used in responding to this RFP.
- 7.4 Proposals received after the Closing Time or in locations other than the address indicated in PART A - INTRODUCTION, may or may not be accepted and may or may not be returned.
- 7.5 Amendments to a Proposal should be submitted in writing in a sealed envelope(s) or package(s), marked with the Proponent's name and the RFP title and reference number.
- 7.6 Proposals are revocable and may be withdrawn at any time before or after the Closing Time.
- 7.7 All costs associated with the preparation and submission of the Proposal, including any costs incurred by the Proponent after the Closing Time, will be borne solely by the Proponent.

8.0 PROPOSAL FORMAT

- 8.1 Unnecessarily elaborate Proposals, beyond that sufficient to present a complete and effective response, are not required and unless specifically requested, the inclusion of corporate brochures and narratives are discouraged.
- 8.2 Proponents are requested to provide their Proposal in the format and including the content described in PART C - FORM OF PROPOSAL.

9.0 BID SECURITY

- 9.1 No bid security is required since no irrevocable binding legal offer is made by submitting a proposal in response to this RFP.

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10.0 OPENING OF PROPOSALS

- 10.1 The City reserves the right to open all Proposals in a manner and at the time and place determined by the City.

11.0 EVALUATION OF PROPOSALS

- 11.1 Proposals will be evaluated by representatives of the City on the basis of the overall best value to the City, based on quality, service, price and any other relevant criteria as determined by the City in its sole and absolute discretion.
- 11.2 The City reserves the right to retain complete control over the RFP process at all times until the execution and delivery of the Agreement. Accordingly, the City is not legally obligated to review, consider or evaluate the Proposals and need not necessarily review, consider or evaluate the Proposals in accordance with the procedures set out in this RFP. The City reserves the right to continue, interrupt, cease or modify its review, evaluation and negotiation process on any or all Proposals at any time without further explanation or notification to any of the Proponents subject only to the express legal terms and conditions which bind the City.
- 11.3 The City may, at any time prior to signing a contract, discuss or negotiate changes to the scope of the RFP with any one or more of the Proponents without having any duty or obligation to advise the other Proponents or to allow the other Proponents to vary their Proposals as a result of such discussions or negotiations.
- 11.4 The City may elect to short list Proponents and evaluate the Proposals in stages. Short-listed Proponents may be asked to provide additional information or details for clarification, which may include attending interviews, making a presentation, supplying sample drawings, performing demonstrations, furnishing additional technical data and proposing amendments to the Form of Agreement. The City will be at liberty to negotiate in parallel with one or more short-listed Proponents, or in sequence, or in any combination, and may at any time terminate all or any one set of negotiations with the short-listed Proponents.
- 11.5 Prior to approval of a Proposal, the City must be satisfied as to the Proponent's financial stability. Proponents may be asked to provide annual financial reports or a set of financial statements prepared by an accountant and covering the Proponent's last two (2) fiscal years.
- 11.6 The City may request that any or all Sub-contractors of the Proponent undergo the same evaluation process.

12.0 PROPOSAL APPROVAL

- 12.1 Proposal approval is contingent on funds being approved and the Proposal being approved by Vancouver City Council. Only then may the successful Proponent and the City proceed to settle, draft and sign the Agreement.
- 12.2 The City will notify the successful Proponent in writing that its Proposal has been approved in principle and invite the Proponent to proceed with discussions to settle, draft and sign the Agreement.
- 12.3 The City is not under any obligation to approve any Proposal and may elect to terminate this RFP at any time.

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13.0 ALTERNATE SOLUTIONS

- 13.1 If in addition to proposing services which meet the requirements, the Proponent wishes to offer an alternative, the alternative solution is to be submitted separately as an appendix within the Management Proposal. Any pricing impact of the alternate solution should be provided separately in the Commercial Proposal.

14.0 FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY ACT

- 14.1 Proponents should note that the City of Vancouver is subject to the *Freedom of Information and Protection of Privacy Act* (British Columbia), which imposes significant obligations on the City's consultants or contractors to protect all personal information acquired from the City in the course of providing any service to the City.

15.0 NON-RESIDENT WITHHOLDING TAX

- 15.1 Please note that the *Income Tax Act* (Canada) requires that payments to non-residents for any services performed in Canada are subject to a Non-resident Withholding Tax of a specified percentage (depending on residency of the contractor). Exemption from this withholding tax is available in some circumstances, but the non-resident must apply directly to the Canada Revenue Agency ("CRA") at least thirty (30) days before commencing the service.

16.0 NO OBLIGATION ASSUMED BY CITY

- 16.1 Unless expressly stated in this RFP, the City assumes no legal duty or obligation in respect of this RFP unless and until the City enters into the Agreement.
- 16.2 The Proponent agrees that the Proponent will bear all costs and expenses incurred by the Proponent in preparing its Proposal and participating in the RFP.

17.0 NO CLAIM AGAINST THE CITY

- 17.1 The Proponent acknowledges and agrees that the City will not be responsible for any costs, expenses, losses, damages (including damages for loss of anticipated profit) or liabilities incurred or alleged to be incurred by the Proponent and by submitting a Proposal each Proponent shall be deemed to have agreed that it has no claim whatsoever.

18.0 INDEMNITY

- 18.1 The Proponent now indemnifies and will protect and save the City harmless from and against all Losses, in respect of any claim or threatened claim by any of the Proponent's Sub-contractors or agents alleging or pleading:
- (a) any breach by the City or its officials or employees of the RFP;
 - (b) any unintentional tort of the City or its officials or employees occurring in the course of conducting this RFP process; or
 - (c) liability on any other basis related to this RFP process.

19.0 DISPUTE RESOLUTION

- 19.1 Any dispute relating in any manner to this RFP process shall be resolved by arbitration in accordance with the *Commercial Arbitration Act* (British Columbia), amended as follows:

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- (a) the arbitrator will be selected by the City's Director of Legal Services;
- (b) Section 17(Release) and Section 18 (Indemnity) will:
 - (i) bind the City, Proponent and the arbitrator; and
 - (ii) survive any and all awards made by the arbitrator; and
- (c) the Proponent will bear all costs of the arbitration.

20.0 ACCESS/OWNERSHIP OF PROPOSAL INFORMATION

- 20.1 All RFP packages and addenda provided to the Proponent by the City remain the property of the City and must be returned to the City upon request.
- 20.2 The documentation containing the Proposal, once submitted to the City, becomes the property of the City, and the City is under no obligation to return the Proposal.

21.0 CONFIDENTIALITY

- 21.1 Subject to the applicable provisions of the *Freedom of Information and Protection of Privacy Act* (British Columbia) and the City's full right to publicly disclose any and all aspects of the Proposal in the course of publicly reporting to the Vancouver City Council on the Proposal results or announcing the results of the Proposals to the Proponent(s), the City will treat all material and information expressly submitted by the Proponent (and the City's evaluation of it) in confidence in substantially the same manner as it treats its own confidential material and information.
- 21.2 The Proponent irrevocably waives all rights it may have by statute, at law or in equity, to obtain any records produced or kept by the City in evaluating its Proposal (and any other submissions) and now agrees that under no circumstances will it make any application to the City for disclosure of any records pertaining to the receipt, evaluation or selection of its Proposal (or any other submissions) including, without limitation, records relating only to the Proponent.
- 21.3 The Proponent will not divulge or disclose to any third parties any information concerning the affairs of the City which may be communicated to the Proponent at any time (whether before or after the Closing Time). Recognizing the need for confidentiality of the City's data, files and other confidential information, the Proponent will not use, exploit or divulge or disclose to third parties any confidential or proprietary information of the City of which the Proponent may gain knowledge in connection with or in the course of discussions or negotiations with the City.
- 21.4 All material and information that has or will come into the Proponent's possession or knowledge in connection with this RFP process is confidential and may not be disclosed or utilized in any way except as expressly provided in the RFP.
- 21.5 The Proponent may not divulge any information respecting the RFP process to any third party without the prior written consent of the City, which consent may be arbitrarily withheld unless it is information which the City has already made public or has been required to disclose pursuant to the *Freedom of Information and Protection of Privacy Act* (British Columbia).

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22.0 NO PROMOTION

- 22.1 The successful Proponent must not disclose or promote its relationship with the City, including by means of any verbal declarations or announcements and by means of any sales, marketing or other literature, letters, client lists, press releases, brochures or other written materials, without the express prior written consent of the City (except as may be necessary for the successful Proponent to perform the successful Proponent's obligations under the terms of the Agreement).

23.0 SURVIVAL/LEGAL EFFECT OF PROPOSAL CONTRACT

- 23.1 All of the terms of this PART B - INSTRUCTIONS TO PROPONENTS which by their nature require performance or fulfillment following the conclusion of the Proposal process will survive such issuance and will remain legally enforceable by and against the Proponent and City.

24.0 DEFINITIONS

- 24.1 For greater certainty, and without limitation to any of this City's rights set out in this RFP, when the terms "must", "shall", "will", "is to" or "are to" precede a requirement regarding the content or format of a Proposal, such requirement is not mandatory but is strongly recommended.

- 24.2 In this RFP, the following terms have the following meanings:

- (a) "Agreement" means the contract entered into between the City and the successful Proponent following the conclusion of the RFP process;
- (b) "City" means the City of Vancouver, a municipal corporation continued pursuant to the Vancouver Charter;
- (c) "Commercial Proposal" means those portions of the Proposal to be submitted in Envelope One as set out in PART C - FORM OF PROPOSAL;
- (d) "Form of Agreement" means the sample Agreement included in PART D-FORM OF AGREEMENT;
- (e) "Losses" means in respect of any matter all:
 - (i) direct or indirect, as well as;
 - (ii) consequential,

claims, demands, proceedings, losses, damages, liabilities, deficiencies, costs and expenses (including without limitation all legal and other professional fees and disbursements, interest, penalties and amounts paid in settlement whether from a third person or otherwise);
- (f) "Management Proposal" means those portions of the Proposal to be submitted in Envelope Two as set out in PART C - FORM OF PROPOSAL, which expressly excludes any pricing information;
- (g) "Project" means the project described in RFP No. PS20110789 The Supply and Delivery of a Multi-Purpose Command Vehicle;

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- (h) "Proponent" means those entities eligible to participate in this RFP process;
- (i) "Proposal" means a proposal submitted in response to the RFP;
- (j) "Proposal Declaration Form" means the form to be included in the Commercial Proposal substantially as set out in PART C-FORM OF PROPOSAL, or as otherwise acceptable to the City.
- (k) "RFP" means the documents issued by the City as Request for Proposal No. PS20110789 including all addenda; and
- (l) "Sub-contractors" means any or all sub-contractors identified in the Proponent's Proposal.

All other terms (capitalized or not) have the meanings given to them in the RFP.

APPENDIX 1 - PART B
DELETED

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APPENDIX 2 - PART B
DECLARATION OF SUPPLIER CODE OF CONDUCT COMPLIANCE

Purpose: All suppliers are to complete and submit this form with proposals to demonstrate compliance with the Supplier Code of Conduct.

The City of Vancouver expects each supplier of goods and services to the City to comply with the City's Supplier Code of Conduct (SCC) <http://vancouver.ca/policy_pdf/AF01401P1.pdf>. The SCC defines minimum social standards for City suppliers and their subcontractors based on the International Labour Organization (ILO) core labour conventions and compliance with national and other applicable law of the country of manufacture of products including those laws relating to labour, worker health and safety, and the environment.

Proponents/vendors must comply with these standards upon submitting a proposal or quotation to the City, or have a plan in place to comply within a specific period of time. The City reserves the right to determine an appropriate timeframe in which proponents/vendors must come into compliance with the SCC. To give effect to this requirement, an authorized signatory of the undersigned proponent/vendor must complete the following declaration and include this declaration with their submission/quotation:

"As an authorized signatory of <insert proponent/vendor name>, I declare that to the best of my knowledge, <insert proponent/vendor name> and our sub-contractors have not been and are not currently in violation of the SCC or convicted of an offence under national and other applicable laws of the country of manufacture, other than as noted in the table below (include all violations/convictions that have occurred in the past three years as well as plans for corrective action).

| Section of SCC, Title of ILO convention/national law or other | Date of violation /conviction | Description of violation /conviction | Regulatory/ adjudication body and document file number | Corrective action plan |
|---|-------------------------------|--------------------------------------|--|------------------------|
| | | | | |
| | | | | |
| | | | | |

I understand that a false declaration and/or lack of a corrective action plan may result in disqualification of <insert proponent/vendor name>'s submission/quotation."

Corporate Name of Applicant

Date

Name and Title of Authorized Signatory

Signature

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APPENDIX 3 - PART B
VENDOR SUSTAINABILITY LEADERSHIP QUESTIONNAIRE

Purpose: This document is designed to identify where suppliers are going above the minimum standards in the Supplier Code of Conduct and are demonstrating sustainability leadership in their own operations as part of the evaluation criteria of a bid process.

As part of the City's corporate Purchasing Policy and related Supplier Code of Conduct, all City vendors must meet minimum requirements related to ethical, social and environmental standards. Beyond these basic requirements, the City would also like to reward vendors that are demonstrating leadership and innovation in sustainability. In order to be able to do so, the City requires that all suppliers bidding on a City contract answer the following questions. The answers to the questionnaire will be evaluated as part of the bid evaluation process.

You will need to be able to verify all your answers to the City upon request. Please keep in mind that these questions relate to your company's internal operations and overall sustainability leadership.

Section 1: Fair Workplace Practices

| | | |
|---|------------------------------|-----------------------------|
| 1. Does your company know the locations of 100% of the facilities that produce your products? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
|---|------------------------------|-----------------------------|

| | | |
|--|------------------------------|-----------------------------|
| 2. Does your company have a documented Supplier Code of Conduct or policy that sets internationally recognized minimum labour standards that you expect your suppliers to meet when manufacturing your products? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
|--|------------------------------|-----------------------------|

3. Tell us how your company verifies compliance to the standards in the Supplier Code of Conduct and/or Purchasing Policy.

| | | |
|---|------------------------------|-----------------------------|
| a) We conduct third party audits of factories we work with. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
|---|------------------------------|-----------------------------|

| | | |
|--|------------------------------|-----------------------------|
| b) We conduct internal audits of our supply chain and work with our supply base to resolve issues. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
|--|------------------------------|-----------------------------|

| | | |
|---|------------------------------|-----------------------------|
| c) We publicly disclose the names and locations of our factories. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
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d) We rely on a complaint-based system to identify supplier non-compliance.

☐ Yes

☐ No

4. Tell us which memberships you hold with organizations that work to promote fair and reasonable employment conditions for workers.

a) We are a member of [Fair Labour Association](#) or [Social Accountability International](#) or [Worker's Rights Consortium](#)

☐ Yes

☐ No

b) We are a member of [Fair Factories Clearinghouse](#) or [Sedex](#)

☐ Yes

☐ No

c) We are a member of another organization that promotes fair and reasonable employment conditions

Please specify _____

Section 2: Workplace Health & Safety, Wage Rates and Diversity

5. Tell us how your company works to promote workplace health and safety.

a) We have a documented Health & Safety Policy and Program that is openly endorsed by senior management and is updated on an annual basis

☐ Yes

☐ No

b) We have a Health & Safety Manual that includes safe work procedures, incident investigation process with the intent of prevention, workplace inspection process and emergency preparedness and response.

☐ Yes

☐ No

c) We conduct hazard assessments and job task-specific health & safety training on an annual basis

☐ Yes

☐ No

d) We are registered with one or more of these Safety Management Systems/Programs:

OHSAS 18001

☐ Yes

☐ No

CAN/CSA Z1000

☐ Yes

☐ No

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| | | |
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| ANSI Z10 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| e) We have a system registered, certified or recognized by another standard | Please specify _____ | |
| f) We adhere to one or more of the ILO health and safety resolutions | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| g) We have a non-registered audited health and safety management system | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 6. Tell us how you ensure fair wages and employee benefits | | |
| a) We pay all of our staff a minimum wage that meets the regional LICO (See http://www.statcan.gc.ca/pub/75f0002m/2009002/tbl/tbl-2-eng.htm for wage amounts) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b) We pay benefits to all of our full-time employees | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 7. Tell us about your strategy to address diversity in your workplace. | | |
| a) We have a policy or strategy to support hiring a diverse workforce | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b) We have a policy or strategy to purchase from diverse contractors / suppliers | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| c) We participate in work/employment training programs for vulnerable/diverse populations (e.g. Social purchasing portal) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Please specify _____ | | |

Section 3: Environmental Management & Stewardship

8. Tell us what policies and programs your company has in place to manage its environmental impact.

| | | |
|--|------------------------------|-----------------------------|
| a) We have a documented Environmental or Sustainability Policy | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
|--|------------------------------|-----------------------------|

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COMMAND VEHICLE
B - INSTRUCTIONS TO PROPONENTS

| | | |
|---|------------------------------|-----------------------------|
| b) We have an environmental management system registered to ISO 14001 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| c) We have a system registered, certified or recognized by another standard (e.g. EMAS) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Please specify _____ | | |
| d) We have a non-registered audited environmental management system | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| e) We conduct compliance audits to health, safety and environmental legislation | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| f) We produce a publicly available annual environmental, CSR, sustainability or accountability report | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

9. Tell us how your company works to reduce its greenhouse gas (GHG) emissions.

| | | |
|--|------------------------------|-----------------------------|
| a) We measure our GHG emissions and have developed a reduction strategy | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b) We publicly report our GHG emissions | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| c) We have set publicly available GHG reduction targets | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| d) We have set a target for the use of renewable or alternative forms of energy and have developed a strategy to reach this target | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| e) We have retrofitted our facilities, our fleet and/or made process improvements to decrease GHG emissions and energy use. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| f) We have an alternative transportation program for employees (e.g. public transit subsidy, cycling facilities, carpooling program) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| g) We purchase from shipping/delivery companies that have taken steps to reduce their GHG emissions. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| h) We operate in third party verified green buildings and have developed a plan to meet third party verified standards (such as LEED, BREEAM, etc) in as many of our facilities as | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

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possible.

Please specify the verification system _____:

10. Tell us how your company works to reduce waste in its daily operations.

a) We conduct regular audits to measure the total amount of solid waste generated by our facilities and have a waste reduction strategy

☐ Yes

☐ No

b) We have set publicly available waste reduction targets

☐ Yes

☐ No

c) We have an office recycling program that includes office paper, beverage containers, batteries and printer cartridges

☐ Yes

☐ No

d) We have other recycling programs in our operations

☐ Yes

☐ No

Please specify additional materials recycled:

11. Tell us how your company works to reduce the use of toxins and properly manage hazardous substances.

a) We are not in violation with any local, national or international laws related to the use of toxins and management of hazardous substances

☐ Yes

☐ No

d) We have a Toxic Reduction Strategy/Policy that aims to reduce toxins across all operations

☐ Yes

☐ No

e) We measure the implementation of our Toxic Reduction Strategy/Policy against a pre-determined set of performance metrics and verify performance with a third-party

☐ Yes

☐ No

Back-up Documentation to Verify Responses

The City reserves the right to verify responses on this questionnaire and may request some or all of the following documentation.

| <i>Section</i> | <i>Question</i> | <i>Back-up Documentation</i> |
|----------------|-----------------|------------------------------|
|----------------|-----------------|------------------------------|

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| | | |
|---|-------------|---|
| Section 1 Fair Workplace Practices | Question 1 | <ul style="list-style-type: none"> Location details of factory locations |
| | Question 2 | <ul style="list-style-type: none"> A copy of Supplier Code of Conduct or policy |
| | Question 3 | <ul style="list-style-type: none"> A copy of third-party audit reports A list of publicly disclosed factories |
| | Question 4 | <ul style="list-style-type: none"> Proof of membership |
| Section 2 Workplace Health and Safety | Question 5 | <ul style="list-style-type: none"> A copy of policy Proof of safety management system certification |
| | Question 6 | <ul style="list-style-type: none"> Documentation of employee benefit packages and a list of those who receive benefits |
| | Question 7 | <ul style="list-style-type: none"> A copy of policies |
| Section 3 Environmental Management and Stewardship | Question 8 | <ul style="list-style-type: none"> A copy of policy Proof of environmental management system certification A copy of public report |
| | Question 9 | <ul style="list-style-type: none"> Copy of public report A copy of reduction targets and related results Proof of LEED, BEEAMA, etc. certification |
| | Question 10 | <ul style="list-style-type: none"> Total tonnes of solid waste generated A copy of reduction targets |
| | Question 11 | <ul style="list-style-type: none"> Copy of strategy/policy A copy of reduction targets and related results Copy of third-party audit/verification |



**CERTIFICATE OF EXISTING INSURANCE
TO BE COMPLETED AND APPENDED TO THE PROPOSAL/TENDER**

Section 2 through 8 – to be completed and executed by the Insurer or its Authorized Representative

1. **THIS CERTIFICATE IS ISSUED TO:** City of Vancouver, 453 W 12th Avenue, Vancouver, BC, V5Y 1V4
and certifies that the insurance policy (policies) as listed herein has/have been issued to the Named Insured and is/are in full force and effect.

2. **NAMED INSURED** (must be the same name as the proponent/bidder and is either an individual or a legally incorporated company)

BUSINESS TRADE NAME or DOING BUSINESS AS

BUSINESS ADDRESS

DESCRIPTION OF OPERATION

3. **PROPERTY INSURANCE (All Risks Coverage including Earthquake and Flood)**

| | |
|-----------------------------------|---|
| INSURER _____ | Insured Values (Replacement Cost) - |
| TYPE OF COVERAGE _____ | Building and Tenants' Improvements \$ _____ |
| POLICY NUMBER _____ | Contents and Equipment \$ _____ |
| POLICY PERIOD From _____ to _____ | Deductible Per Loss \$ _____ |

4. **COMMERCIAL GENERAL LIABILITY INSURANCE (Occurrence Form)**

| | |
|---|--|
| Including the following extensions: | INSURER _____ |
| ✓ Personal Injury | POLICY NUMBER _____ |
| ✓ Property Damage including Loss of Use | POLICY PERIOD From _____ to _____ |
| ✓ Products and Completed Operations | Limits of Liability (Bodily Injury and Property Damage Inclusive) - |
| ✓ Cross Liability or Severability of Interest | Per Occurrence \$ _____ |
| ✓ Employees as Additional Insureds | Aggregate \$ _____ |
| ✓ Blanket Contractual Liability | All Risk Tenants' Legal Liability \$ _____ |
| ✓ Non-Owned Auto Liability | Deductible Per Occurrence \$ _____ |

5. **AUTOMOBILE LIABILITY INSURANCE** for operation of owned and/or leased vehicles

| | |
|-----------------------------------|---|
| INSURER _____ | Limits of Liability - |
| POLICY NUMBER _____ | Combined Single Limit \$ _____ |
| POLICY PERIOD From _____ to _____ | <i>If vehicles are insured by ICBC, complete and provide Form APV-47.</i> |

6. ☐ **UMBRELLA OR** ☐ **EXCESS LIABILITY INSURANCE** **Limits of Liability (Bodily Injury and Property Damage Inclusive) -**

| | |
|-----------------------------------|---------------------------------|
| INSURER _____ | Per Occurrence \$ _____ |
| POLICY NUMBER _____ | Aggregate \$ _____ |
| POLICY PERIOD From _____ to _____ | Self-Insured Retention \$ _____ |

7. **PROFESSIONAL LIABILITY INSURANCE**

| | |
|-----------------------------------|--|
| INSURER _____ | Limits of Liability |
| POLICY NUMBER _____ | Per Occurrence/Claim \$ _____ |
| POLICY PERIOD From _____ to _____ | Aggregate \$ _____ |
| | Deductible Per Occurrence/Claim \$ _____ |

If the policy is in a "CLAIMS MADE" form, please specify the applicable Retroactive Date: _____

8. **OTHER INSURANCE**

| | |
|-----------------------------------|------------------------------|
| TYPE OF INSURANCE _____ | Limits of Liability |
| INSURER _____ | Per Occurrence \$ _____ |
| POLICY NUMBER _____ | Aggregate \$ _____ |
| POLICY PERIOD From _____ to _____ | Deductible Per Loss \$ _____ |
| TYPE OF INSURANCE _____ | Limits of Liability |
| INSURER _____ | Per Occurrence \$ _____ |
| POLICY NUMBER _____ | Aggregate \$ _____ |
| POLICY PERIOD From _____ to _____ | Deductible Per Loss \$ _____ |

SIGNED BY THE INSURER OR ITS AUTHORIZED REPRESENTATIVE

PRINT NAME OF INSURER OR ITS AUTHORIZED REPRESENTATIVE, ADDRESS AND PHONE NUMBER

Dated _____

Section 8 b) – City staff to select the required # of days Written Notice before sending the certificate out for completion
 Section 2 through 8 – to be completed and executed by the Insurer or its Authorized Representative

1. **THIS CERTIFICATE IS ISSUED TO:** City of Vancouver, 453 W 12th Avenue, Vancouver, BC, V5Y 1V4
and certifies that the insurance policies as listed herein have been issued to the Named Insured(s) and are in full force and effect as of the effective date of the agreement described below.
2. **NAMED INSURED:** *[must be the same name as the Permittee/Licensee or Party(ies) to Contract and is/are either an individual(s) or a legally incorporated company(ies)]*

MAILING ADDRESS:

LOCATION ADDRESS:

DESCRIPTION OF OPERATION, CONTRACT, AGREEMENT, LEASE, PERMIT OR LICENSE:

3. **PROPERTY INSURANCE** naming the City of Vancouver as a Named Insured and/or Loss Payee with respect to its interests and shall contain a waiver clause in favour of the City of Vancouver.

(All Risks Coverage including Earthquake and Flood)

INSURED VALUES: (Replacement Cost)

INSURER: _____

Building and Tenants' Improvements: \$ _____

TYPE OF COVERAGE: _____

Contents and Equipment: \$ _____

POLICY NUMBER: _____

Deductible Per Loss: \$ _____

POLICY PERIOD: From _____ to _____

4. **COMMERCIAL GENERAL LIABILITY INSURANCE (Occurrence Form)**

Including the following extensions:

LIMITS OF LIABILITY: (Bodily Injury and Property Damage Inclusive)

✓ Personal Injury

Per Occurrence: \$ _____

✓ Products and Completed Operations

Aggregate: \$ _____

✓ Cross Liability or Severability of Interest

All Risk Tenants' Legal Liability: \$ _____

✓ Employees as Additional Insureds

✓ Blanket Contractual Liability

✓ Non-Owned Auto Liability

INSURER: _____

Deductible Per Occurrence: \$ _____

POLICY NUMBER: _____

POLICY PERIOD: From _____ to _____

5. **AUTOMOBILE LIABILITY INSURANCE** for operation of owned and/or leased vehicles

INSURER: _____

LIMITS OF LIABILITY:

POLICY NUMBER: _____

Combined Single Limit: \$ _____

POLICY PERIOD: From _____ to _____

If vehicles are insured by ICBC, complete and provide Form APV-47.

6. ☐ **UMBRELLA OR** ☐ **EXCESS LIABILITY INSURANCE**

LIMITS OF LIABILITY: (Bodily Injury and Property Damage Inclusive)

INSURER: _____

Per Occurrence: \$ _____

POLICY NUMBER: _____

Aggregate: \$ _____

POLICY PERIOD: From _____ to _____

Self-Insured Retention: \$ _____

7. **OTHER INSURANCE** (e.g. Boiler & Machinery, Business Interruption, Crime, etc.) – Please specify Name of Insurer(s), Policy Number, Policy Period, and Limit

8. **POLICY PROVISIONS:**

Where required by the governing contract, agreement, lease, permit or license, it is understood and agreed that:

- a) *The City of Vancouver, its officials, officers, employees, servants and agents have been added as Additional Insureds with respect to liability arising out of the operation of the Named Insured pursuant to the governing contract, agreement, lease, permit or license;*
- b) *SIXTY (60) days written notice of cancellation or material change resulting in reduction of coverage with respect to any of the policies listed herein, either in part or in whole, will be given by the Insurer(s) to the Holder of this Certificate; the exception is cancellation for non-payment of premiums in which case the applicable statutory conditions will apply;*
- c) *The insurance policy (policies) listed herein shall be primary with respect to all claims arising out of the operation of the Named Insured. Any insurance or self-insurance maintained by the City of Vancouver shall be in excess of this insurance and shall not contribute to it.*

SIGNED BY THE INSURER OR ITS AUTHORIZED REPRESENTATIVE

PRINT NAME OF INSURER OR ITS AUTHORIZED REPRESENTATIVE, ADDRESS AND PHONE NUMBER _____ Dated: _____

REQUEST FOR PROPOSAL NO. PS20110789
THE SUPPLY AND DELIVERY OF A MULTI-PURPOSE
COMMAND VEHICLE
PART C - FORM OF PROPOSAL

PART C - FORM OF PROPOSAL

1.0 INTRODUCTION

- 1.1 This PART C - FORM OF PROPOSAL contains the format and information requested by the City to be contained in the Proponent's Proposal.
- 1.2 The Proponent's Proposal should be submitted in two (2) envelopes or packages:
- (a) Envelope One: Commercial Proposal, one (1) set only including the Proposal Declaration Form; and
 - (b) Envelope Two: Management Proposal, four (4) sets
 - (c) One (1) CD containing the Commercial and Management Proposals.
- 1.3 The Commercial Proposal should contain the following sections, as more particularly described in this PART C - FORM OF PROPOSAL under the heading "Submission Instructions for Envelope One - Commercial Proposal":
- (a) Proposal Declaration Form;
 - (b) Pricing (Schedule D);
 - (c) Certificate of Existing Insurance;
 - (d) WorkSafeBC clearance letter;
 - (e) Deviations and Variations.
 - (f) Declaration of Supplier Code of Conduct Compliance
 - (g) Vendor Sustainability Leadership Questionnaire; and
 - (h) Amendments and/or Addenda to the Request for Proposals (if any).
- 1.4 The Management Proposal should contain the following sections, as more particularly described in this PART C - FORM OF PROPOSAL under the heading "Submission Instructions for Envelope Two - Management Proposal":
- (a) Company Profile;
 - (b) Key Personnel
 - (c) References;
 - (d) Sub-Contractors;
 - (e) Requirements Overview, and;
 - (f) Environmental Responsibility;

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COMMAND VEHICLE
PART C - FORM OF PROPOSAL

PROPOSAL DECLARATION FORM

[Proponent's Letterhead]

To: [Insert submission location]

Attention: [Insert contact person]

Capitalized terms have the definitions given them in the RFP.

In consideration of the City's agreement to consider Proposals in accordance with the terms of the RFP, the Proponent hereby submits its Proposal in accordance with the following:

1.0 PROPOSAL

The Proponent acknowledges that:

- (a) this Proposal Declaration Form has been duly authorized and validly executed;
- (b) the Proponent has received, read, examined and understood the entire RFP including all of the terms and conditions, all documents listed in the RFP "Table of Contents", and any and all Addenda; and
- (c) the City reserves the right to verify information in its Proposal and conduct any background investigations including criminal record investigations, verification of the Proposal, credit enquiries, litigation searches, bankruptcy registrations and taxpayer information investigations or other investigations on the Proponent, and by submitting a Proposal, the Proponent agrees that it consents to the conduct of all or any of those investigations by the City.

2.0 NO CONFLICT OF INTEREST IN PROPOSAL EVALUATION

The Proponent confirms that there is no officer, director, shareholder, partner or employee or other person related to the Proponent's or the Proponent's proposed Sub-contractor's organizations (a "person having an interest") or any spouse, business associate, friend or relative of a person having an interest who is:

- (a) an elected official or employee of the City; or
- (b) related to or has any business or family relationship with any elected official or employee of the City,

such that there would be any conflict of interest or any appearance of conflict of interest in the evaluation or consideration of this Proposal by the City, except as set out below:

[The Proponent is conclusively deemed to have declared "none" unless the Proponent deletes this note and describes any or all relationships which might give rise to a conflict of interest or an appearance of a conflict of interest.]

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COMMAND VEHICLE
PART C - FORM OF PROPOSAL

3.0 NO CONFLICT OF INTEREST IN PROJECT

The Proponent confirms that neither the Proponent nor its proposed Sub-contractors are currently engaged in providing (or are proposing to provide) supply and delivery of lamps, bulbs and ballasts of any kind to the Federal Government, Provincial Government, the Greater Vancouver Regional District (Metro Vancouver), or any member local governments of Metro Vancouver such that entering into the Agreement pursuant to this RFP would create a conflict of interest or the appearance of conflict of interest between the Proponent's duties to the City and the Proponent's duties of loyalty to these other governmental organizations, except as set out below:

[The Proponent is conclusively deemed to have declared "none" unless the Proponent deletes this note and describes any or all relationships which might give rise to a conflict of interest or an appearance of a conflict of interest.]

4.0 NO COLLUSION OR FRAUD

The Proponent now confirms that its Proposal is in all respects a fair Proposal made without collusion or fraud and confirms that the Proponent is not competing within this RFP process with any entity with which it is legally or financially associated or affiliated, except as set out below:

[The Proponent is conclusively deemed to have declared "none" unless the Proponent deletes this note and describes any and all affiliations or relationships which might give rise to collusion or an appearance of collusion.]

5.0 NO LOBBY STATUS

The Proponent now confirms that neither it nor any officers, directors, shareholders, partners, or employees of the Proponent or any of its proposed Sub-Contractors is registered as a lobbyist under any lobbyist legislation in any jurisdiction in Canada or in the United States of America, except as set out below:

[The Proponent is conclusively deemed to have declared "none" unless the Proponent deletes this note and describes any or all lobbyist registrations of the type described above.]

IN WITNESS TO THE ABOVE, the Proponent has executed this Proposal Declaration Form and submits same with the attached Proposal:

Authorized Signatory for the Proponent

Date

Name and Title (please print)

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COMMAND VEHICLE
PART C - FORM OF PROPOSAL

SUBMISSION INSTRUCTIONS FOR ENVELOPE ONE - COMMERCIAL PROPOSAL

The following describes the format and information to be provided by the Proponent in its Commercial Proposal. The paragraph titles and numbers in the Commercial Proposal should correspond to the paragraph titles and numbers below.

1.0 PROPOSAL DECLARATION FORM

- 1.1 Each Proponent should submit with its Commercial Proposal a signed Proposal Declaration Form substantially as set out in this PART C - FORM OF PROPOSAL, or as otherwise acceptable to the City.

2.0 PRICING

- 2.1 The Proponent should copy the Pricing Table set out below in Schedule D - Pricing for inclusion in their RFP submission:

2.2 Terms of Payment

The City's standard payment terms are net thirty (30) days after receipt of approved invoice, however discounts or more favourable terms offered by the Proponent will be taken into consideration in the financial evaluation. Please indicate in your response if other than Net thirty (30).

Describe if Electronic Fund Transfer (EFT) is available.

2.3 Alternative Pricing Solutions - Intentionally Omitted

3.0 INSURANCE REQUIREMENTS

3.1 Proponents should submit with their Commercial Proposals

- a) a Certificate of Existing Insurance duly completed and signed by their insurance agent or broker as evidence of their existing insurance,
- b) a letter from their insurance broker or agent indicating whether or not (and if not then to what extent) they will be able to comply with the insurance requirements as set out in Section 19 of PART D - FORM OF AGREEMENT, should they be selected as the successful Proponent.

- 3.2 The successful Proponent will be required to file certificates of insurance with the City showing proof of all insurance requirements described utilizing the "General Certificate of Insurance" attached as Appendix 5 of Part B. These certificates must be received and reviewed and approved by the City prior to or concurrently with the City entering into any Contract with the successful Proponent.

REQUEST FOR PROPOSAL NO. PS20110789
THE SUPPLY AND DELIVERY OF A MULTI-PURPOSE
COMMAND VEHICLE
PART C - FORM OF PROPOSAL

4.0 WORKSAFEBC REQUIREMENTS

- 4.1 Proponents should submit with their Commercial Proposals proof of valid WorkSafeBC registration. Such registration should be maintained as specified in Section 18 of PART D - FORM OF AGREEMENT.

5.0 DEVIATIONS AND VARIATIONS

- 5.1 In their Commercial Proposal Proponent(s) should detail any deviations and/or variations from the terms and conditions set out in this RFP and if applicable, detail proposed amendments.
- 5.2 Where the Proponent is proposing the use of contract language or clauses other than those set out in PART D - FORM OF AGREEMENT, including any and all Schedules, such revised language must be outlined in its Proposal. The City will assume such clauses are in addition to those in the Form of Agreement unless otherwise indicated by the Proponent.

6.0 VENDOR SUSTAINABILITY LEADERSHIP AND SUPPLIER CODE OF CONDUCT COMPLIANCE

- 6.1 The Proponent should complete and include with its Commercial Proposal Appendix 2 - Declaration of Supplier Code of Conduct Compliance and Appendix 3 - Vendor Sustainability Leadership Questionnaire.

7.0 AMENDMENTS OR ADDENDA

- 7.1 The Proponent should complete and include with its Commercial Proposal amendments, and/or addenda to the Request for Proposals that the City has issued (if any) pursuant to Section B - Part 2.1.

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THE SUPPLY AND DELIVERY OF A MULTI-PURPOSE
COMMAND VEHICLE
PART C - FORM OF PROPOSAL

SUBMISSION INSTRUCTIONS FOR ENVELOPE TWO - MANAGEMENT PROPOSAL

The following describes the format and information to be provided by the Proponent in its Management Proposal. The paragraph titles and numbers in the Management Proposal should correspond to the paragraph titles and numbers below.

The Proponent should note that the Management Proposal should contain no pricing information whatsoever.

1.0 COMPANY PROFILE

1.1 Provide the following information:

Proponent's Name: _____
"Proponent"

Mailing Address: _____

Cheque Payable/Remit to _____

Telephone No.: _____ Fax No.: _____

Key Contact Person: _____ E-mail: _____

GST/HST Registration No.: _____ Incorporation Date: _____

City of Vancouver Business License Number: _____
(If your office is located in Vancouver or N/A if not applicable)

WorkSafeBC Account Number: _____

Dunn and Bradstreet Number: _____
(or N/A if not applicable)

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- 1.2 Provide a description of the Proponent's company, purpose and history of successes including number of years in business, major projects, and what is most responsible for the Proponent's success to date. Include a company brochure or resume for each member of any consortium as well as each key personnel employed by any named proposed Sub-contractor to the Proponent.

2.0 KEY PERSONNEL

- 2.1 Identify key personnel to be assigned to this Contract, setting out their names, responsibilities and relevant experience.
- 2.2 Include an organization chart for the Proponent's proposed Project team, identifying the team leader or project manager, and all roles and areas of responsibility.

3.0 REFERENCES

- 3.1 The Proponent is to describe the Proponent's relevant experience with similar engagements for similar work over the last two (2) years as well as references for same by completing the table below. The Proponent may, at its own discretion, expand on the number of references and information that it deems necessary to support its Proposal. By submitting a Proposal, the Proponent consents to the City contacting these references, and consents to the City also contacting any other organization for the purposes of evaluating the Proponent's company and Proposal.

| | Name and Address of Company | Contact Name and Telephone Number | Brief Description of Work and Date Performed |
|---|-----------------------------|-----------------------------------|--|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

4.0 SUB-CONTRACTORS

- 4.1 The Sub-contractors shown below are the Sub-contractors that the Proponent proposes to use to carry out the Requirements. The City expects that the Proponent will engage the listed Sub-contractors and no others in their stead without prior written authorization of the City. (For contractual requirements, Proponents should note the relevant sections of the Form of Agreement.)
- 4.2 The City reserves the right to object to any of the Sub-contractors listed in a Proposal. If the City objects to a listed Sub-contractor then the City will permit a Proponent to, within seven (7) calendar days, propose a substitute Sub-contractor acceptable to the City. A Proponent will not be required to make such a substitution and, if the City objects to a listed Sub-contractor, the Proponent may, rather than propose a

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substitute Sub-contractor, consider its Proposal rejected by the City and by written notice withdraw its Proposal.

- 4.3 If no Sub-contractors will be used, indicate “Not Applicable”.

| Company Name, Address | Contact Name and Telephone Number | Area of Responsibility |
|--------------------------|--------------------------------------|------------------------|
| | | |
| | | |
| | | |

5.0 REQUIREMENTS OVERVIEW

- 5.1 Schedule B “Requirements - Detailed Equipment Specifications and Compliance Matrix”, Schedule C - “Drawing” and Schedule D “Pricing” of PART D - FORM OF AGREEMENT provide details on the scope and requirements related to the work to be completed by the successful Proponent. In its Proposal the Proponent should respond to these schedules.
- 5.2 In their Management Proposal Proponent(s) should complete and include Schedule B - Requirements - Detailed Specifications and Compliance Matrix indicating compliance or deviations to specifications listed.
- 5.2 The City is interested in Proposals that will add value. Innovative ideas will be favorably considered in evaluating all Proposals.

6.0 PROJECT TIMELINE

- 6.1 The Proponent should provide a detailed schedule, in GNATT or PERT format, based on the following milestones. The working schedule should be of sufficient detail to demonstrate the Proponents understanding of the work:

| No. | Key Date Description | Date |
|-----|-------------------------------|----------------------|
| 1 | <i>Anticipated Award</i> | <i>March 1, 2012</i> |
| 2 | | |
| 3 | | |
| 4 | <i>Substantial Completion</i> | |
| 5 | <i>Final Completion</i> | |

The final agreed to schedule should become the Contract Schedule for the successful Proponent.

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7.0 ENVIRONMENTAL RESPONSIBILITY

7.1 The City is committed to preserving the environment. Proponents should provide environmentally sensitive products or services wherever possible.

7.2 The Proponent is to advise the City of any known alternatives or substitutes for such materials that would mitigate the effects of any adverse conditions on the environment.

8.0 PRIME CONTRACTOR REQUIREMENTS - Intentionally Omitted

FORM OF AGREEMENT

SUPPLY AND DELIVERY OF A MULT-PURPOSE COMMAND VEHICLE

THIS AGREEMENT made as of _____, 20__ (the “Effective Date”)

BETWEEN:

CITY OF VANCOUVER, a municipal corporation continued under the *Vancouver Charter* and having an office at 453 West 12th Avenue, Vancouver, British Columbia, V5Y 1V4

(the “City”)

AND:

[INSERT LEGAL NAME OF COMPANY], a company having an office at [INSERT ADDRESS]
(the “Supplier”)

WHEREAS:

- A. The City requires the supply and delivery [INSERT SERVICES] services described herein and wishes to engage the Supplier to perform said services.
- B. The Supplier has agreed to perform the said supply and delivery services in accordance with the terms and conditions of this Agreement.

NOW THEREFORE, in consideration for the mutual covenants and promises made by the parties and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. DEFINITIONS AND INTERPRETATION

1.1 Definitions. In this Agreement, the following words and terms, unless the context otherwise requires, will have the meanings set out below:

- (a) “Additional Compensation” has the meaning set out in Section 5.1;
- (b) “Agreement” means this Supply and Delivery A Multi-Purpose Command Vehicle inclusive of all schedules, appendices or exhibits attached hereto, as may be amended from time to time;
- (c) “Applicable Laws” means all statutes, regulations, by-laws, codes, rules, notices, orders, directives, standards and requirements of every competent federal, provincial, regional, municipal and other statutory authority applicable to the Supplier, any Subcontractor and the Services, all as may be in force from time to time;

- (d) “Business Day” means a day other than a Saturday, Sunday or statutory holiday observed in British Columbia;
- (e) “Completion Date” has the meaning set out in Section 8.1;
- (f) “Contract Documents” means this Agreement, the Proposal, the RFP PS2011789 and such other documents as listed in this Agreement, including all amendments or addenda agreed to between the parties;
- (g) “Delivery Services” has the meaning set out in Section 2 of Schedule A;
- (h) “Delivery Date” has the meaning set out in Section 8.1;
- (i) “Effective Date” has the meaning set out above, and means the first day of the Term;
- (j) “Event of Default” has the meaning set out in Section 23.2 of this Agreement;
- (k) “Contractor or Supplier” means the proponent whose Proposal the City has accepted and to whom the Contract has been awarded;
- (l) “HST” means the tax payable and imposed pursuant to Part IX of the *Excise Tax Act* (Canada), as amended, including any provincial component collected by Canada on behalf of British Columbia, and any successor legislation thereto;
- (m) “Losses” means in respect of any matter all:
 - (i) direct or indirect, as well as
 - (ii) consequential,claims, demands, proceedings, losses, damages, liabilities, deficiencies, costs and expenses (including without limitation all legal and other professional fees and disbursements, interest, penalties and amounts paid in settlement whether from a third person or otherwise);
- (n) “Manufacturer” in respect of a particular Good means the manufacturer of that Good;
- (o) “Pre-Delivery Services” has the meaning set out in Section 1 of Schedule A;
- (p) “Premises” means [INSERT ADDRESS]
- (q) “Products” means the Multi-Purpose Command Vehicle and related items to be supplied to the City by the Supplier, as more particularly set out in Schedule B of this Agreement;
- (r) “Product Specifications” has the meaning set out in Section 6.1;
- (s) “Project” means the Supply and Delivery of A Multi-Purpose Command Vehicle;
- (t) “Project Manager” is the person designated by each of the parties to administer this Agreement on their behalf and is named in Section 25 of this Agreement, and is subject to change in accordance with Section 25.5 of this Agreement;

- (u) “Proposal” means the response to the RFP submitted by the Supplier on [INSERT DATE] together with all correspondence between the City and the Supplier related thereto;
- (v) “Purchase Order” has the meaning set out in Section 9.1;
- (w) “RFP” means Request for Proposals PS2011789 issued on December 16, 2011;
- (x) “Services” has the meaning set out in Section 4.1;
- (y) “Standard of Work” means the highest of:
 - (i) the standard imposed by law;
 - (ii) the standard prescribed by the professional and regulatory bodies in the applicable profession, field or discipline;
 - (iii) the standard set forth in the Proposal;
 - (iv) the standard set forth in the RFP; and
 - (v) the standard otherwise prescribed in this Agreement;
- (z) “Supplier’s Personnel” means the Supplier’s staff who are assigned to this Agreement to undertake the Services;
- (aa) “Supplier’s Facility” means the Supplier’s business premises;
- (bb) “Subcontractors” means the independent consultants, agents, associates, subcontractors and other third parties retained by the Supplier to assist in the performance of the Services;
- (cc) “Tax” means HST and any other similar tax;
- (dd) “Tax Legislation” includes the *Income Tax Act* (Canada), *Excise Tax Act* (Canada), and all other similar legislation in effect from time to time;
- (ee) “Term” has the meaning set out in Section 4.3; and
- (ff) “WorkSafeBC Legislation” means the *Workers Compensation Act* (British Columbia) and all regulations enacted pursuant to the *Workers Compensation Act* (British Columbia).

1.2 Interpretation. In this Agreement, including the recitals, Schedules and appendices to this Agreement, except as expressly stated to the contrary or the context otherwise requires:

- (a) the recitals and headings to Sections and Schedules are for convenience and reference only and will not affect the interpretation of this Agreement;
- (b) each reference in this Agreement to “Section” or “Schedule” is to a Section of and a Schedule to, this Agreement;
- (c) each reference to a statute is deemed to be a reference to that statute and any successor statute, and to any regulations, rules, policies and criteria made

under that statute and any successor statute, each as amended or re-enacted from time to time;

- (d) each reference to a rule, guideline, policy, regulation or directive is deemed to be a reference to any successor or replacement of such rule, guideline, policy, regulation or directive;
- (e) words importing the singular include the plural and vice versa and words importing gender include all genders;
- (f) references to time of day or date mean the local date or time in Vancouver, British Columbia;
- (g) all references to money mean lawful currency of Canada;
- (h) the word “written” includes printed, typewritten, faxed, e-mailed or otherwise capable of being visibly reproduced at the point of reception and “in writing” has a corresponding meaning; and
- (i) the words “include” and “including” are to be construed as meaning “including, without limitation”.

1.3 **Contract Documents.** The terms and conditions of the Contract Documents, whether or not attached to this Agreement, will be deemed to be incorporated into this Agreement. The Contract Documents are complementary, and what is called for by any one will be as binding as if called for by all. In the event of any inconsistency or conflict between or among any of the Contract Documents, the Contract Documents will be interpreted in the following order from highest to lowest:

- (a) this Agreement including any amendments to this Agreement;
- (b) the schedules and appendices attached hereto including any amendments to the schedules and appendices attached hereto;
- (c) the Proposal; and
- (d) the RFP.

2. SUPPLIER'S REPRESENTATIONS AND WARRANTIES

2.1 **Representations and Warranties.** The Supplier represents and warrants that:

- (a) the Supplier has the full right, power, and authority to enter into this Agreement and to perform the Services;
- (b) the Supplier is a corporation duly incorporated, organized, validly existing and in good standing under the laws of its jurisdiction of incorporation or continuance and is lawfully registered and licensed to do business in the Province of British Columbia;
- (c) the Supplier is not a party to or bound by any agreement (written or oral), indenture, instrument, licence, permit or understanding or other obligation or restriction under the terms of which the execution, delivery and/or performance of this Agreement does or will constitute or result in a violation or breach;

- (d) the Supplier has a valid City of Vancouver business licence and will maintain such business licence in good standing for the Term;
 - (e) all statements made by the Supplier in its Proposal are true and accurate;
 - (f) the Supplier is an authorized distributor of the Products;
 - (g) the Supplier and the Supplier's Personnel and Subcontractors have the skills, training, experience and expertise which are necessary to complete the Services in accordance with the terms of this Agreement;
 - (h) the Products meet or exceed the Product Specifications and the Supplier will install the Products in accordance with the Manufacturer's recommendations and requirements; and
 - (i) all Products will be new and the model approved by the City and free from defects and/or imperfections in material, workmanship or design.
- 2.2 Survival. The representation and warranties in Section 2.1 will survive the expiry or earlier termination of this Agreement.
3. PURCHASE OF THE PRODUCTS
- 3.1 Subject to the terms and conditions of this Agreement, the City agrees to purchase and the Supplier agrees to sell the Products listed in Schedule B of this Agreement to the City at and for the unit prices stated in Schedule B.
4. SERVICES
- 4.1 Description of Services. In addition to selling the Products to the City, the Supplier will provide and be fully responsible for the following services (collectively, the "Services"), as may be modified or amended pursuant to the terms of this Agreement:
- (a) the Pre-Delivery Services and the Delivery Services described in Schedule A of this Agreement;
 - (b) the services described elsewhere in this Agreement;
 - (c) the services described in the RFP;
 - (d) the services which the Supplier agreed to provide in the Proposal; and
 - (e) any services not specifically covered in (a), (b), (c) or (d) above, but reasonably inferable therefrom, or reasonably necessary for the safe and efficient completion of the Services.
- 4.2 Provision of Service Inputs and Personnel. The Supplier will provide all labour, supervision, management, facilities, equipment, tools, supplies, fuel and materials necessary, appropriate or incidental to the proper and complete execution of the Services. Schedule A describes in general terms how the Supplier is to perform the Services. However, if there is any discrepancy in the description of the requirements or any omission of criteria, whether or not identified by the City, which would be detrimental to the benefits intended to be provided to the City by this Agreement then the Supplier will rectify such discrepancy or omission to the satisfaction of the City without further compensation.

- 4.3 Term. The Supplier will perform and complete the Services commencing on the Effective Date and in accordance with the City's timetable indicated herein and in the RFP, ending on the date that the Services are completed to the satisfaction of the City (the "Term").
- 4.4 Standard of Care. The Supplier will exercise such degree of care, skill, diligence and efficiency in the performance of the Services as is required by the Standard of Work. The Supplier represents and warrants that it has all the skills, qualifications, certifications and experience necessary to perform the Services to the Standard of Work as contemplated by this Agreement and acknowledges that its skills, qualifications, certifications and experience were a major factor in the selection of the Supplier for the work set out in this Agreement. The parties will act with utmost good faith towards each other in connection with this Agreement.
- 4.5 Remedy for Deficient Services. Without limiting any other remedy which the City may have under this Agreement or at law, the Supplier at its sole cost upon written request of the City will rectify any of the Services which have not been performed in accordance with the care, skill, diligence and efficiency set out in Section 4.4 or which have not otherwise been performed in accordance with the terms of this Agreement, and will do all such things that may be reasonably required by the City to satisfy the City that the Services have been duly performed or rectified in accordance with the terms of this Agreement.
- 4.6 Cooperation and Coordination Regarding Performance of Services. The Supplier will cooperate, and coordinate the performance of the Services with the City's personnel and the City's contractors, subcontractors, consultants and suppliers including the General Contractor and all other tradespersons at the Premises, with a view to optimizing efficiency, achieving cost reductions, ensuring safety, and minimizing delays. Notwithstanding the foregoing, the Supplier will have no liability for the acts or omissions of any persons for whom it is not responsible under the terms of this Agreement or at law.
5. CHANGES TO SERVICES
- 5.1 Right to Make Changes. The City may request that the Supplier perform additional work beyond the scope contemplated by the Contract Documents in which case the City and the Supplier will agree, in writing, upon a reasonable estimate of the time the additional services will require and the cost of such services ("Additional Compensation"). Actual charges for the additional services will not exceed the amount of the Additional Compensation agreed upon between the City and the Supplier.
- 5.2 Personnel. The City may from time to time request reasonable changes to the Supplier's Personnel, and the Supplier will comply with any such request. The Supplier will not change any of the Supplier's Personnel without the prior written approval of the City, which approval will not be unreasonably withheld.
6. PRODUCT SPECIFICATIONS AND DRAWINGS
- 6.1 Requirements. All Products supplied to the City by the Supplier pursuant to this Agreement must comply with the specifications, requirements and drawings set out in the Contract Documents or as otherwise agreed in writing between the City and the Supplier (the "Product Specifications").

7. COMPENSATION

- 7.1 Fees for Services. Subject to the terms and conditions of this Agreement, and in consideration for the satisfactory performance of the Services, the City will pay the Supplier for the Delivery in accordance with Schedule B of this Agreement. Without limiting the Supplier's obligation to perform all Services, the Supplier acknowledges that it will not invoice the City separately for any Services other than the Delivery Services and the cost of performing the Pre-Delivery Services and all other Services are deemed to be included in the fees for the Delivery.
- 7.2 Product Prices. The prices for the Products are set out in Schedule B and will remain fixed for a period of three (3) years from the Effective Date. Prices may be adjusted by mutual agreement by both the Contractor and the City, subject to documented proof which can be verified with an independent published source or mutually acceptable market index as related to the Product(s).
- 7.3 Supplier's Costs. The fees for the Delivery and the prices for the Products set out in Schedule B include all of the Supplier's profit and all of the Suppliers costs whatsoever, including storage, labour, supervision, management, facilities, overhead, office expenses, equipment, transportation, fuel, delivery, brokerage costs, import duties, taxes (except HST on the Products and the Services, as applicable) tools, supplies and materials.
- 7.4 Manner of Payment. The Supplier will be paid on the basis and at the times set out in Schedule B and Section 17 of this Agreement.
- 7.5 No Additional Compensation unless Pre-Approved. No Additional Compensation whatsoever will be payable by the City for work performed by the Supplier which has not been approved in accordance with Section 5.1 hereof.

8. SCHEDULE

- 8.1 Delivery Date and Completion Date. The Supplier will commence the Delivery on [INSERT DELIVERY DATE] (the "Delivery Date") and complete the Delivery to the satisfaction of the City by [INSERT COMPLETION DATE] (the "Completion Date").
- 8.2 Changes to Schedule. The City may change the Delivery Date to account for changes in the Project schedule generally. If the City changes the Delivery Date then the Completion Date will also change by a corresponding number of days and the City will give the Supplier written notice of such change. Notwithstanding the foregoing, the Delivery Date will not occur before [INSERT DATE].

9. ORDERING PRODUCTS

- 9.1 Purchase Order. The City will issue a purchase order (the "Purchase Order") for the Products that it wishes to purchase from the Supplier.
- 9.2 Effect of Purchase Order. In the event of any conflict between the terms of an individual Purchase Order and the terms of any other Contract Document, the terms of the other Contract Document will have priority.

10. TITLE AND RISK

- 10.1 Risk. The Products will be at the Supplier's sole risk for any loss or damage until the Supplier has completed the Delivery.

- 10.2 Title. Title to the Products will automatically pass to the City upon completion of the Delivery. The Supplier will deliver to the City any documentation, including a bill of sale, which the City may reasonably require to evidence the transfer of title in and to the Products to the City, free and clear of all liens, charges and encumbrances.

11. PRODUCT WARRANTY

- 11.1 Warranty. The Supplier will deliver to the City all such documentation as the City may reasonably require to evidence that the Products are subject to a Manufacturer's warranty and if applicable, a Supplier's extended warranty, on terms which are acceptable to the City. If any warranties are issued to the Supplier and not the City, the Supplier will take all such further steps and actions as may be required to assign the benefit of such warranties to the City.

- 11.2 Warranty Effective Date. The warranty period for a Product will not commence prior to the Delivery Date.

12. EXCLUSIVITY

- 12.1 Not an Exclusive Supply Contract. If the Supplier is not able to:

- (a) supply a particular Product to the City;
- (b) supply the quantities of a Product required by the City;
- (c) deliver a particular Product in accordance with the deadlines set out in Section 8;
- (d) supply a Product to the City which meets the Product Specifications for such Product;
- (e) perform any of the Services when and where required by the City, or

then in each such case, the City will be entitled, in its sole discretion, to purchase the particular Product or services from any other supplier.

13. SUBCONTRACTORS

- 13.1 Use of Subcontractors. The Supplier may retain Subcontractors to assist in the performance of the Services, provided that:

- (a) the Supplier will not subcontract all or substantially all of the Services to a Subcontractor;
- (b) the Supplier will require that the terms of this Agreement apply to the Subcontractors; and
- (c) the Supplier will be wholly responsible for the professional standards, performance, acts, defaults and neglects of such Subcontractors.

- 13.2 Standard of Care of Subcontractors. The Supplier represents to the City that all Subcontractors are competent and have the qualifications, designations, experience and capabilities necessary to carry out the Services to the Standard of Work. The Supplier will cause all Subcontractors to exercise the degree of care, skill, diligence

and efficiency in the performance of the Services as is required by the Standard of Work.

13.3 Subcontractor Approvals. The Supplier will only retain Subcontractors approved by the City in writing.

13.4 Subcontractor Changes. The Supplier will not change any Subcontractor without the prior written approval of the City. The City may, from time to time, where it reasonably believes performance to the Standard of Work is not being met by any Subcontractor(s), request changes to the Supplier's Subcontractors, and the Supplier will comply with any such request.

14. COMPLIANCE WITH LAWS AND TAXES

14.1 Compliance with Laws. In carrying out its obligations hereunder, the Supplier will comply with, and will cause all Subcontractors to comply with, all Applicable Laws.

14.2 Regulatory Compliance. The Supplier will upon request by the City provide certificates of compliance from regulatory bodies or other evidence of compliance, including as pertaining to any of the Subcontractors. The Supplier accepts full and exclusive responsibility and liability, and will cause all Subcontractors to accept full and exclusive responsibility and liability, for payment of federal and provincial payroll taxes and for contributions for employment insurance, old age pensions, retirement annuities, workers' compensation, health and hospitalization plans and other benefits expressed under any provision of any law or any agreement to which the Supplier and the Subcontractors are subject.

14.3 Permits and Licenses. The Supplier represents and warrants that it has obtained and is in compliance with all requisite permits, professional designations, authorizations and licenses necessary for the Supplier to supply the Products and provide the Services.

15. POLICIES, RULES AND REGULATIONS

15.1 Rules and Procedures. The City may prescribe, and the Supplier will comply with (and cause any person for whom it is responsible at law or pursuant to the provisions of this Agreement to comply with) all rules, regulations, policies and procedures from time to time for:

- (a) matters pertaining to safety and security, including data and network security and issuance of passes, vehicle operating permits, keys, badges, and like devices;
- (b) environmental matters;
- (c) accessibility matters;
- (d) sustainability matters;
- (e) the use of specific materials, goods or services;
- (f) public information and communications; and
- (g) such other matters as the City may from time to time deem necessary or desirable in its reasonable determination.

15.2 **Changes to Rules and Procedures.** The City may at any time upon notice to the Supplier amend the rules, regulations, policies and procedures relating to the Services, and may at any time prescribe specific stipulations regarding the Services applicable to the Supplier and its Subcontractors.

15.3 **Safety.** The Supplier acknowledges the City's commitment to a superior standard of workplace safety. In addition to complying with all of the Supplier's health and safety obligations specified in this Agreement or otherwise prescribed by Applicable Law, the Supplier agrees to provide support for the City's safety objectives by making efforts to elevate the priority it places on the creation of a safe work environment and embedding health and safety principles into its work.

16. RELATIONSHIP OF THE PARTIES

16.1 **Status.** The Supplier is engaged as an independent contractor to the City for the sole purpose of supplying the Products and providing the Services. Neither the Supplier nor any of the Supplier's personnel is engaged as an official, officer, employee, servant or agent of the City, and neither the Supplier nor any of the Supplier's personnel will enter into or purport to enter into any contract or subcontract on behalf of the City. All Subcontractors will be consultants, agents, associates or subcontractors, as the case may be, of the Supplier and will not be consultants, agents, associates or subcontractors of the City. It is understood and agreed that the Supplier will act as an independent contractor to the City and that no joint venture, partnership or principal-and-agent relationship exists between them in connection with this Agreement or otherwise, and the parties covenant that they will not assert otherwise. It is further understood and agreed that the Supplier is entitled to no other benefits or payments whatsoever other than those specified in this Agreement.

16.2 **No Acceptance of Advantages or Benefits.** Neither the Supplier, nor any of its agents or employees (including any Subcontractors) will give or offer to give to the City or any official, officer, employee or agent of the City any gratuity, reward, advantage or benefit of any kind as consideration for doing or forbearing to do, or for having done or forborne to do, any act in connection with this Agreement or the Services. Contravention of this provision will be deemed an Event of Default (as defined in Section 23.2) and will permit the City to terminate this Agreement pursuant to Section 23.1(b).

16.3 **No Conflicts of Interest.** The Supplier declares that to the best of its knowledge the Supplier and its Subcontractors, and their respective directors, officers, employees and agents, have no pecuniary interest or any other current or past interest or dealings, including with any officials, officers or employees of the City, that would cause a conflict of interest or be seen to cause a conflict of interest in carrying out the Services. Should such a conflict or potential conflict arise during the term of this Agreement, the Supplier will declare it immediately in writing to the City. The City may direct the Supplier to resolve any conflict or potential conflict to the satisfaction of the City. The Supplier warrants that neither the Supplier nor any of its Subcontractors, or any of their respective directors, officers, employees or agents, has any predisposition, affinity or association with any third party which would impair or qualify the provision of the Services

16.4 **No Third Party Rights.** Except as expressly set forth herein, nothing in this Agreement will be construed to give any rights or benefits to anyone other than the City and the Supplier.

17. PAYMENT

17.1 Invoicing. The City will not be required to make any payment to the Supplier under this Agreement until the Supplier delivers the Products to the Premises and completes the Delivery Services to the satisfaction of the City. Upon the City confirming that a particular Product has been delivered to the Premises and that the Delivery Services for that Product have been completed to the satisfaction of the City, the Contractor will invoice the City in full for such Products and Delivery Services.

17.2 Submission of Invoices. Subject to Section 17.1, the Supplier will submit invoices to the City in respect of the Products and the completion of the Delivery Services by the Supplier in accordance with the prices set forth in Schedule B. Each invoice will be clearly itemized to show this contract number, the Delivery performed, amount of Products delivered, the HST, if applicable, and the Supplier's HST registration number.

17.3 Address for Invoices. All invoices will be directed to the following address:

CITY OF VANCOUVER
[INSERT APPLICABLE ADDRESS]
Attention: [INSERT CONTACT].

or such other address as the City may communicate to the Supplier from time to time.

17.4 Time for Payment. Except for any amounts which the City is in good faith disputing, any set off which the City may claim, any amounts in respect of which the City has requested and not received supporting evidence under Section 17.5, and any holdback required to be made under Applicable Law, the City will pay invoices submitted by the Supplier within 30 days of receipt thereof.

17.5 Maintenance of Records. The Supplier will keep, and will cause any Subcontractors to keep, books, records, documents, invoices, receipts and other evidence relevant to the purchase of the Products by the City and the provision of the Services in accordance with generally accepted accounting principles and practices consistently applied. The City and any of its duly authorized representatives will, for the purpose of audit and examination, have access to and be permitted, upon reasonable notice to the Supplier, to inspect such books, records, documents and other evidence for review, copying and audit at any time and from time to time while this Agreement is in effect and for a period of three years after the expiry or termination of this Agreement for any reason.

18. WORKSAFEBC COMPLIANCE

18.1 Prior to commencing the Services, the Supplier must provide evidence that it is in good standing with WorkSafeBC.

18.2 Payment of WorkSafeBC Assessments - The Supplier agrees that it will at its own expense procure and carry or cause to be procured and carried and paid for, full WorkSafeBC coverage for itself and all workers, employees, servants and others engaged in or upon the Services. The Supplier agrees that the City has the unfettered right to set off the amount of any unpaid premiums and assessments for such WorkSafeBC coverage against any monies owing by the City to the Supplier. The City will have the right to withhold payment under this Agreement until the WorkSafeBC premiums, assessments or penalties in respect of the Services have been paid in full.

- (a) *Initial Proof of WorkSafeBC Registration/Good Standing* - Within five (5) Business Days of the Effective Date, the Supplier will provide the City with the Supplier's and all Subcontractors WorkSafeBC registration numbers and with written confirmation from WorkSafeBC that the Supplier and all Subcontractors are registered and in good standing with WorkSafeBC and that all premiums, assessments and penalties have been paid to date.
- (b) *Subsequent Proof of WorkSafeBC Registration/Good Standing* - Within five (5) Business Days of a request by the City the Supplier will provide the City with written confirmation from WorkSafeBC that the Supplier and all Subcontractors are registered and in good standing with WorkSafeBC and that all premiums, assessments and penalties have been paid to date.
- (c) *Special Indemnity Against WorkSafeBC Non-Compliance* - The Supplier will indemnify and hold harmless the City from and against all manner of claims, demands, costs, losses, penalties and proceedings arising out of or in any way related to:
 - (i) unpaid WorkSafeBC assessments of the Supplier or any other employer for whom the Supplier is responsible under this Agreement;
 - (ii) the acts or omissions of any person engaged directly or indirectly by the Supplier in the performance of the Services, or for whom the Supplier is responsible at law and which acts or omissions are or are alleged by WorkSafeBC to constitute a breach of WorkSafeBC Legislation or any other failure to observe the safety rules, regulations and practices of WorkSafeBC, including any and all fines and penalties levied by WorkSafeBC, or
 - (iii) any breach of this Section 18.

This indemnity will survive the expiry or earlier termination of this Agreement.

19. INSURANCE AND INDEMNITY

19.1 **Supplier's Insurance.** Without limiting any of its obligations or liabilities under this Agreement, the Supplier will obtain and continuously carry and will cause its Subcontractors to obtain and continuously carry during the term of the Agreement at its own expense and cost, the following insurance coverages with minimum limits of not less than those shown in the respective items set out below:

- (a) Commercial General Liability insurance in sufficient amounts and description to protect the Supplier, its Subcontractors, the City and their respective officers, officials, employees, and agents against claims for damages, personal injury including death, bodily injury and property damage which may arise under this Agreement.

The limit of commercial general liability insurance will be not less than \$5,000,000 per occurrence, or such higher amount as the City may require from time to time, inclusive for personal injury, death, bodily injury or property damage and in the aggregate with respect to products and complete operations. The deductible will not exceed \$5,000 per occurrence.

The policy of insurance will:

- (i) be on an occurrence form;
 - (ii) add the City of Vancouver and its officials, officers, employees and agents as additional insureds;
 - (iii) contain a cross-liability or severability of interest clause;
 - (iv) extend to cover non-owned automobile, contingent employer's liability, blanket contractual liability, contractor's protective liability, broad form property damage, broad form completed operations and operations of attached machinery.
 - (b) Automobile insurance covering all vehicles owned, leased or operated by the Supplier in connection with this Agreement including Third Party Legal Liability Insurance in an amount not less than \$5,000,000 per occurrence, or such higher amount as the City may require from time to time.
 - (c) All-Risks property insurance covering the Supplier's property of every description containing a provision in which the insurer waives all rights which it may acquire by payment of a claim to recover the paid amount from the City or its officials, officers, employees or agents (a "Waiver of Subrogation").
- 19.2 All insurance policies required by this Agreement will be in a form, in amounts and with insurers acceptable to the City's Director of Risk Management. All policies will provide that the insurer will provide the Manager, Facility Development with sixty (60) days prior written notice of any material change, lapse or cancellation of the policy. Notice must identify the contract title, number, policy holder, and scope of work.
- 19.3 The Supplier and each of its Subcontractors will provide at its own cost any additional insurance which it is required by law to provide or which it considers necessary.
- 19.4 Neither the providing of insurance by the Supplier in accordance with this Agreement, nor the insolvency, bankruptcy or the failure of any insurance company to pay any claim accruing will be held to relieve the Supplier from any other provisions of the Contract Documents with respect to liability of the Supplier or otherwise.
- 19.5 The insurance coverage will be primary insurance as respects the City. Any insurance or self-insurance maintained by or on behalf of the City or its officers, officials, employees, or agents will be excess of the Supplier's insurance and will not contribute with it.
- 19.6 Prior to the Effective Date, the Supplier will provide the City with evidence of all required insurance to be taken out in the form of a "Certificate of Insurance" (on the City's form) and supported by a certified copy(s) of the policy(s). The Certificate of Insurance will identify the contract title, number, policyholder and scope of work and must not contain any qualifications or disclaimers. The Supplier will provide proof of insurance, in the form of a Certificate of Insurance or certified copies of all insurance policies to the Manager, [INSERT DEPARTMENT NAME] at any time during the Term immediately upon request.
- 19.7 The Supplier will provide in its agreements with its Subcontractors clauses in the same form as in this Section 19. Upon request, the Supplier will deposit with the Manager, [INSERT DEPARTMENT NAME] detailed certificates of insurance for the policies it has obtained from its Subcontractors and a copy of the applicable insurance clauses from its sub-contract agreements.

- 19.8 The Supplier will ensure that the required insurance is provided only by a company duly registered and authorized to conduct insurance business in the Province of British Columbia.
- 19.9 Responsibility and Liability. The Supplier hereby assumes the entire responsibility and liability for all damage and injury of any kind and nature whatsoever, caused by, resulting from, arising out of, incidental to, or accruing in connection with any wilful misconduct or negligent act, error or omission of the Supplier or any person for whom the Supplier is responsible at law or pursuant to the terms of this Agreement.
- 19.10 Indemnity. The Supplier will defend, indemnify and hold harmless the City and all of its past and present directors, officers, officials, employees, agents and representatives from and against all Losses, of any nature or kind whatsoever, either before or after the expiration or termination of this Agreement, arising out of or in connection with:
- (a) the performance of the Services by the Supplier or the failure by the Supplier to perform the Services;
 - (b) any wilful misconduct or any negligent act, error or omission of the Supplier or any person for whom the Supplier is responsible at law or pursuant to the provisions of this Agreement, including without limitation, injury or death to anyone, loss or damage to property of any person, any claim or matter in dispute between the Supplier and any Subcontractor, and any failure or deficiency by the Supplier or any Subcontractor in providing the Services;
 - (c) any infringement or alleged infringement of any copyright, patent, trademark, industrial design, trade secret or other intellectual property rights of any person, or of any obligation of confidentiality, in connection with the Services and or the sale of the Products to the City; and
 - (d) any claim which may be made for a lien or charge at law or in equity or to any claim or liability under the *Builders Lien Act*, or to any attachment for debt, garnishee process or otherwise.

This indemnity will survive the expiry or earlier termination of this Agreement.

- 19.11 Discharge of Liens. The Contractor will make all payments and take all other steps which may be necessary to insure that all monies payable under this Agreement, the Products and any land owned by the City, will be and remain at all times free from and not liable to any lien or charge at law or in equity, or to any claim of liability under the *Builders Lien Act*, or to any attachment for debt, garnishee process or otherwise, and the Supplier will fully defend, indemnify and hold harmless the City and all of its past and present directors, officers, officials, employees, agents and representatives from and against all Losses relating to such matters, and will, on demand, immediately cause any such lien, charge, claim or attachment to be removed or released from the records of the Land Title Office or court in which the same may appear.
- 19.12 Rectification of Damage. The Supplier will rectify any loss or damage caused by the Supplier in the performance of the Services at no charge to the City and to the satisfaction of the City. Alternatively, the City may repair the loss or damage and the Supplier will then pay to the City the costs of repairing the loss or damage promptly upon demand by the City. Where, in the opinion of the City it is not practical or desirable to repair the loss or damage, the City may estimate the cost of repairing the

loss or damage and deduct such estimated amount from any amount owing to the Supplier.

20. FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY ACT

- 20.1 The Supplier acknowledges that the City is subject to the *Freedom of Information and Protection of Privacy Act* (British Columbia), which imposes significant obligations on the City's contractors to protect all personal information acquired from the City in the course of providing any service to the City.

21. NO PROMOTION

- 21.1 No Promotion of Relationship. The Supplier will not disclose or promote its relationship with the City, including by means of any verbal declarations, announcements, sales, marketing or other literature, letters, client lists, press releases, brochures or other written materials (the "Communications") without the express prior written consent of the City (except as may be necessary for the Supplier to perform the Supplier's obligations under the terms of this Agreement).

22. SUSTAINABILITY

- 22.1 The Supplier acknowledges the City's commitment to sustainability. The Supplier agrees that it will not use any products, supplies or chemicals in the course of performing the Services which have not been approved in writing by the City.

- 22.2 As the City Contractor, your performance during all contractual obligations will be critical to the City's sustainable and ethical commitments. As such, you must be aware of and follow the City of Vancouver's sustainable and ethical requirements set out in the Procurement Policy and related Supplier Code of Conduct at http://vancouver.ca/policy_pdf/AF01401P1.pdf.

23. TERMINATION

- 23.1 Rights of Termination. This Agreement may be terminated before completion of the Services and before the expiry of the Term, anything to the contrary herein notwithstanding, as follows:

- (a) by the City, at its option and for any reason in its sole discretion, upon 15 Business Days' notice to the Supplier; or
- (b) by the City at its option, at any time after the happening of an Event of Default.

- 23.2 Events of Default. For the purposes hereof, an "Event of Default" will be deemed to occur if:

- (a) the Supplier is in breach of any covenant, obligation or representation hereunder and such breach persists unremedied for a period of ten (10) Business Days after the City has provided the Supplier with written notice of and particulars of the breach or alleged breach, provided that the City may terminate without providing a cure period with respect to actions of the Supplier that are part of a continuing course of conduct in respect of which prior written notice has been given;

- (b) any Product which the Supplier has agreed to supply to the City does not meet the Product Specifications for that Product as determined by the City;
- (c) the Supplier is not able to supply any Product by the Delivery Date or complete the Delivery Services by the Completion Date;
- (d) there occurs or, in the reasonable opinion of the City, there exists a threat of, a strike, lockout, work slowdown, labour disturbance, or refusal to work by the employees or Subcontractors of the Supplier;
- (e) the Supplier is adjudged bankrupt, becomes insolvent or unable to discharge its liabilities as they become due, makes an assignment for the benefit of its creditors, is subject to the appointment of a receiver, or a petition of bankruptcy is made against it; or
- (f) any Subcontractor becomes insolvent or unable to discharge its liabilities as they become due or makes an assignment for the benefit of its creditors or a petition of bankruptcy is made against it, and such situation will, in the City's reasonable determination, have an adverse impact on the delivery of the Services.

23.3 Termination Payment. Where this Agreement is terminated under Section 23.1, the City will pay to the Supplier such part of the compensation as the City, acting reasonably, determines has been earned by the Supplier to the date of termination less any amounts held by the City on account of damages, losses or costs resulting from an Event of Default. Payment pursuant to this Section will not include any amounts for lost revenue or lost profit of the Supplier. Upon the termination of this Agreement and payment as required hereunder, the City will have no further obligation or liability to the Supplier with respect to compensation payable to the Supplier hereunder and may as a condition of final payment under this Agreement require the Supplier to execute and deliver a release and discharge in favour of the City in relation to the compensation payable to the Supplier hereunder.

23.4 Remedy for Default. In the case of an Event of Default or if the Supplier fails to supply and provide the Services or any part thereof in accordance with this Agreement, the City may, without limiting any other rights it may have, remedy any deficiency and may engage others to do so, and may charge against the Supplier all extra costs and expenses in doing so. The City will be under no obligation to remedy any failure or deficiency on the part of the Supplier and will not incur any liability to the Supplier for any action or omission in the course of its remedying or attempting to remedy any such failure or deficiency.

23.5 Effect of Termination. Termination of this Agreement for any reason will not prejudice, limit or affect any claim or matter outstanding prior to termination or obligations consequent upon termination or which by their nature survive termination as provided for herein.

23.6 Suspension of Services. The City may, at any time and from time to time by delivery of notice in writing to the Supplier, suspend the performance of the Services for the period of time specified in such notice. In that event the City will pay to the Supplier such part of the compensation as can reasonably be considered to have been earned by the Supplier to the date of the suspension, and any costs or expenses directly incurred and not reasonably avoidable as a result of such suspension. The Supplier will have no claim against the City for any costs, expenses, damages or other liabilities suffered or

incurred by the Supplier as a result of any suspension hereunder unless otherwise agreed by the City in writing.

24. ASSIGNMENT

- 24.1 No Assignment by Supplier without Consent. The Supplier will not assign this Agreement, in whole or in part, or any payments due or to become due under this Agreement, either voluntarily, involuntarily or by operation of law, without the express prior written consent of the City, which consent may be unreasonably or arbitrarily withheld.
- 24.2 Change of Control. If the Supplier is a company, then any change in the control of the company will be deemed to constitute an assignment for the purposes of Section 24.1.
- 24.3 Effect of Assignment. No assignment permitted by the City will relieve the Supplier from any obligation under this Agreement or impose any liability upon the City.
- 24.4 Assignment by the City. The City may at any time and from time to time assign this Agreement, in whole or in part, upon notice to (and without the consent of) the Supplier.

25. CONTRACT ADMINISTRATION

- 25.1 City Project Manager. For the purposes of this Agreement, the City designates [INSERT NAME] or their delegate as its Project Manager.
- 25.2 Supplier Project Manager. For the purposes of this Agreement, the Supplier designates [INSERT NAME] as its Project Manager.
- 25.3 The Project Manager will be the primary point of contact for each party in the administration of this Agreement.
- 25.4 The Supplier's Project Manager will meet with the City's Project Manager(s) on a regular basis and at the time and place requested by the City to address any issues which may arise under this Agreement.
- 25.5 Changes in Project Manager. Either party may change its Project Manager and/or its Project Manager's address, telephone and/or fax number by written notice to the other party given in accordance with Section 26.1 of this Agreement.

26. NOTICES

- 26.1 Addresses for Notice. Any notice required or permitted to be given by one party to another pursuant to this Agreement must be in writing and will be validly given if delivered, transmitted by facsimile or mailed in British Columbia by pre-paid registered post to the parties as follows:

TO THE CITY:

CITY OF VANCOUVER
[INSERT DEPARTMENT NAME]
[INSERT ADDRESS]

Attention: [INSERT NAME]
Fax: [INSERT FAX]

TO THE SUPPLIER:

[INSERT NAME]
[INSERT ADDRESS]

Attention: [INSERT NAME]
Fax: [INSERT FAX]

or to such other person or address as one party may advise the other in writing from time to time. Any notice given in accordance with this or any other provision of this Agreement is deemed to be received on the day of delivery or transmission by facsimile if a Business Day and if not a Business Day then on the next Business Day or if mailed, on the third Business Day following the posting thereof, provided that if there is a postal strike, dispute or slowdown, notices will only be effective if delivered or transmitted by facsimile.

- 26.2 Notice of Actions against Supplier. The Supplier will provide written notice to both the City's Project Manager at the address set out in Section 26.1 and the City of Vancouver's Director of Legal Services at:

CITY OF VANCOUVER
453 West 12th Avenue
Vancouver, British Columbia
V5Y 1V4

Attention: Director of Legal Services
Fax: (604) 873-7445

immediately upon the written threat or commencement of any actions brought against the Supplier or any of its Subcontractors or their respective affiliates, the outcome of which may affect the rights of the City or the ability of the Supplier to comply with its obligations under this Agreement.

27. TIME FOR PERFORMANCE

- 27.1 Time of the Essence. Time will be of the essence of this Agreement.

- 27.2 Unavoidable Delay. Notwithstanding Section 27.1, except for the performance of obligations to pay money, the time periods for the City and the Supplier's performance under this Agreement will be extended for periods of time during which their performance is delayed or prevented due to an Unavoidable Delay. For the purposes of this Section, an "Unavoidable Delay" means any circumstances beyond the reasonable control of the party trying to perform (such as, for example, acts of God, war or other strife or governmental action) but in the case of the Supplier, expressly excludes any and all delays caused by the Supplier's lack of financial resources or insolvency, strikes, lockouts or other withdrawals of services arising out of a labour dispute (including a strike, lockout, or other labour dispute involving the Vancouver Board of Parks and Recreation and/or the City of Vancouver and their respective employees) or labour affiliations of the Supplier's employees or Subcontractors' employees, or governmental action taken in the enforcement of law specifically against the Supplier or its Subcontractors. If an Unavoidable Delay occurs, the non-performing party will, as soon as possible after the occurrence of the Unavoidable Delay, give written notice to the other party describing the circumstances preventing continued performance and the efforts being made to resume performance of its obligations under this Agreement.

28. DISPUTE RESOLUTION

- 28.1 All claims, disputes or issues in dispute between the City and the Supplier in relation to this Agreement will be decided by mediation or arbitration, if the parties agree, or failing agreement, by the courts pursuant to Section 28.5.
- 28.2 Subject to Section 28.7, in the event that (i) the parties agree to arbitration pursuant to Section 28.1, the arbitration will be conducted pursuant to the *Commercial Arbitration Act* (British Columbia) and will be governed by the rules of the British Columbia International Commercial Arbitration Centre, except that the arbitrator or arbitrators will be agreed upon by the parties, and failing agreement by the parties, will be appointed by a court of competent jurisdiction within the Province of British Columbia. The parties will share equally the costs of the arbitration but will be responsible for their own separate costs and expenses in relation to the arbitration including legal fees and disbursements.
- 28.3 If the parties agree to arbitration, the arbitration will take place in Vancouver, British Columbia and will be governed by the laws of British Columbia.
- 28.4 The procedure set out in this section is not meant to preclude or discourage informal resolution of disagreements between the City and the Supplier.
- 28.5 The laws of British Columbia will govern all disputes under this Agreement and the courts of British Columbia will have exclusive jurisdiction to determine all disputes arising under this Agreement unless and until the parties agree in writing to mediate or arbitrate any specific dispute.
- 28.6 All provisions of the *International Sale of Goods Act* (British Columbia) are specifically excluded from application to this Agreement.
- 28.7 No arbitration pursuant to Section 28.2 will be binding on the City (but will, at the City's option be binding on the Supplier) until the Supplier has permitted the City to conduct an audit of the Supplier's records pursuant to generally accepted auditing standards.

29. GENERAL

- 29.1 **City Information/Approval.** No reviews, approvals or inspections carried out or information supplied by the City will derogate from the duties and obligations of the Supplier (with respect to designs, reviews, inspections, approvals or otherwise), and all responsibility related to the Services will be and remain with the Supplier. For greater certainty, any information provided by the City to the Supplier, whether under the RFP or under this Agreement, including any studies, reports, plans, drawings, or specifications, is provided to the Supplier for information purposes only and must be independently verified by the Supplier unless the City otherwise agrees in writing.
- 29.2 **No Waiver.** No action or failure to act by the City will constitute a waiver of any right or duty under this Agreement, or constitute an approval or acquiescence in any breach thereunder, except as may be specifically agreed in writing by the City.
- 29.3 **Severability.** The invalidity, illegality or unenforceability of any portion or provision of this Agreement or the occurrence of any event rendering any portion or provision of this Agreement void will in no way affect the validity or enforceability of any other portion or provision of this Agreement. Any void portion or provision will be deemed severed from this Agreement and the balance of this Agreement will be construed and

enforced as if this Agreement did not contain the particular portion or provision held to be void. The parties further agree to amend this Agreement to replace any stricken provision with a valid provision that comes as close as possible to the intent of the stricken position.

- 29.4 **Governing Law.** This Agreement will be construed under and according to the laws of the Province of British Columbia.
- 29.5 **Remedies Cumulative.** The remedies of the parties provided for in this Agreement are cumulative and are in addition to any remedies available to the parties at law or in equity. No remedy will be deemed to exclude or restrict the right of a party to any other remedies against the other party and a party may from time to time have recourse to one or more of the remedies specified in this Agreement or at law notwithstanding the termination of this Agreement.
- 29.6 **Further Assurances.** Each party will execute such further and other documents and instruments and do such further and other acts as may be necessary to implement and carry out the provisions and intent of this Agreement.
- 29.7 **Entire Agreement.** The Contract Documents constitute the entire agreement between the parties with respect to the subject matter hereof, and supersede all previous communications, representations and agreements, whether oral or written, with respect to the subject matter hereof.
- 29.8 **Amendment.** This Agreement will not be amended except as specifically agreed in writing by both the City and the Supplier.
- 29.9 **Joint and Several Liability of Joint Venture Participants.** If the Supplier is a joint venture of two or more entities, it is understood and agreed that the grants, covenants, provisos, claims, rights, powers, privileges and liabilities of the Supplier will be joint and several.
- 29.10 **Enurement.** This Agreement will enure to the benefit of and be binding upon the City and the Supplier and their respective heirs, executors, legal representatives, administrators, successors and permitted assigns.
- 29.11 **Schedules and Appendices.** The Schedules and appendices attached hereto are hereby incorporated by reference in and form an integral part of this Agreement.
- 29.12 **Representation.** By executing this Agreement, the Supplier represents that it has carefully examined this Agreement, acquainted itself with all conditions relevant to the Services including the site conditions at the Premises, made all evaluations and investigations necessary for a full understanding of any difficulties which may be encountered in performing the Services, and been given the opportunity to receive independent legal advice. The Supplier further acknowledges that this Agreement is sufficient for the proper and complete execution of the Services.
- 29.13 **Set-Off.** The City may at its option, withhold and set-off against any amount owing to the Supplier (whether under this Agreement or otherwise) any amounts payable by the Supplier to the City (whether under this Agreement or otherwise) and the amount of any damages suffered or claims made or to be made by the City as a result of any other claim it may have against the Supplier, whether such claim is at law or in equity or tort or on any other basis.

29.14 Counterparts. This Agreement may be executed in one or more counterparts, each of which will constitute an original and together will constitute one and the same Agreement.

IN WITNESS WHEREOF this Agreement has been executed as of the day and year first above written by and on behalf of the parties by their duly authorized officers.

CITY OF VANCOUVER,
by its Authorized Signatory(ies)

Director of Legal Services

Director of Facilities and Design Management

[INSERT FULL LEGAL NAME OF CONTRACTOR]
By its Authorized Signatory(ies)

Authorized Signatory

Authorized Signatory

This Agreement has been authorized by a resolution of Vancouver City Council dated [INSERT DATE]

SCHEDULE A

SERVICES

Without limiting the Supplier's obligations under the Agreement, the Supplier will provide the Services set out in this Schedule A during the Term:

1. Pre-Delivery Services

The Supplier will perform the following Services (the "Pre-Delivery Services"):

(a) Shop Drawings and Product Literature

Prior to the City placing an order for any Products, the Supplier will deliver shop drawings, product literature and such other documentation that the City may require to confirm that each Product meets the Product Specifications. The review of such documentation by the City will be to confirm conformity with the Product Specifications and such review will not relieve the Supplier of responsibility for errors or omissions in such documentation or to deliver the Products in accordance with the terms and conditions of the Contract Documents including the Product Specifications.

(b) Samples

The Supplier will deliver a samples of items requested to the City by such date to allow for adequate review time without impeding the project delivery schedule which meets the Product Specifications, for the City to test and approve prior to placing an order for all of the sampled items required for the Premises.

If the samples do not meet the Product Specifications and the City determines that the Supplier can rectify the problem without delaying the Project schedule then the Supplier will rectify the problem and deliver to the City a sample which meets the Product Specifications. Under no circumstances will the additional time granted to the Supplier pursuant to this Section affect the Supplier's obligation to meet the deadlines set out in Section 8 of the Agreement.

If the samples do not meet the Product Specifications and the City determines in its sole discretion that the Supplier is not capable of rectifying the problem then the City will be entitled to purchase these sampled items from another supplier pursuant to Section 12.1 of the Agreement or terminate the Agreement pursuant to 23.1(b) of the Agreement.

(c) Site Meetings

The Supplier will attend site meetings at the Premises or at another location requested by the City as requested by the City in order to follow the progress of the Project. The City anticipates that the Supplier will be required to attend at least two meetings per calendar month between the Effective Date and the Delivery Date.

(d) Storage

If the City is not ready for the Supplier to deliver the Products on the Delivery Date then the Supplier will store the Products at the Supplier's Facility, or a comparable facility, at the Supplier's cost, until the City notifies the Supplier that it may commence delivery of the Product.

2. Delivery

The Supplier will perform the following Services (the "Delivery Services"):

(a) Delivery

The Supplier will deliver the Products to the Premises commencing on the Delivery Date. The Supplier will unload and temporarily store the Products as directed by the City.

(b) Temporary Products

If the Supplier is unable to deliver any Products to meet the deadlines set out in Section 8 of the Agreement then, without limiting the City's rights under Section 12.1 or 23.1(b) of the Agreement, the City may require the Supplier to provide temporary products (the "Temporary Products") at no cost to the City in order to enable the City to commence operations at the Premises. Under no circumstances will the delivery of Temporary Products by the Supplier relieve it of its obligations under this Agreement, including the obligation to deliver and install Products which meet the Products Specifications. Where following the delivery of Temporary Products by the Supplier the City determines, acting reasonably, that the Supplier will not be able to deliver and install Products which meet the Product Specifications, the City may immediately exercise its rights under Section 12.1 or 23.1(b) of the Agreement.

(c) Clean-Up

The Supplier will clean-up all dust, dirt, debris left in the Premises by the Supplier or its Subcontractors and leave the Premises in a condition acceptable to the City.

(d) Disposal and Recycling

The Supplier will remove from the Premises all debris, waste or packaging generated by the performance of the Services by the Supplier and will recycle all materials which are capable of being recycled. The Contractor will dispose of any materials which cannot be recycled in accordance with Applicable Laws.

(e) Demonstration and Acceptance by City

Upon completion of the Services set out in subsection (b) above, the Supplier will provide the City's Project Manager or other designated City personnel with a demonstration of the operation of each Products supplied by the Supplier and make any adjustments required by the City. If the City determines that any Product does not meet the Product Specifications, does not operate in accordance with the Manufacturer's specifications or is damaged in any way then the Supplier will take whatever steps are required to rectify the situation including, if necessary, replacing the Products.

(f) Manuals and Warranty Documentation

The Supplier will deliver all manuals, brochures and warranty documentation to the City's Project Manager on or before the date that the Supplier provides a demonstration of the Products pursuant to subsection (f) above.

(g) Training

The Supplier will provide the City's Project Manager or other designated City personnel with training on the proper use and care of all Products. The training will include instruction on operation, care, cleaning and preventative maintenance.

(h) Warranty Services

The Supplier will provide warranty service to the City on each Product supplied by the Supplier in accordance with the warranty terms

REQUIREMENTS
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AND COMPLIANCE MATRIX

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REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
AND COMPLIANCE MATRIX

I. GENERAL SPECIFICATIONS

| <i>A. General</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <p>1. <u>Scope</u></p> <p>A quantity of one (1) multi purpose command vehicle. Primary application for this unit is a mobile command post for the Vancouver Police Department. The multi purpose command vehicle is to consist of:</p> <p style="margin-left: 20px;">a) One (1) truck chassis with a mounted truck body</p> <p>The following tender specifications provide vehicle chassis specifications, body construction design and materials for the unit.</p> | |
| <p>2. <u>Compliance</u></p> <p>Vehicle must be in full compliance of current B.C. Motor Vehicle Safety Act, Commercial Motor Vehicle Regulations and U.S. Federal Environmental Protection Agency current exhaust emissions standards. Vehicle must also fully comply with Work Safe BC Regulations, Transport Canada Regulations, and Federal Government Motor Vehicle Safety Act and Regulations. Supplier is to affix its assigned National Safety Mark and the final compliance label to the vehicle.</p> <p><u>State:</u></p> <p>Compliance in full.</p> | |
| <p>3. <u>Vehicle Drawing</u></p> <p>Drawing of tendered vehicle including layout drawings of showing the front, rear and both side views of the proposed unit (exterior and interior) must be provided with tender document. The drawings must show all major components including dimensions.</p> <p><u>State:</u></p> <p>Compliance.</p> | |

REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
AND COMPLIANCE MATRIX

| A. <i>General</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <p>4. <u>Maintenance and Serviceability</u></p> <p>Prefer chassis and body to incorporate current components for which service is available in the lower mainland.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Location of nearby chassis OEM service centre(s). 3. Location of nearby body service centre(s). | |
| <p>5. <u>Capacity Ratings</u></p> <p>All capacity ratings to be in accordance with the applicable SAE Standards.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>6. <u>Welding</u></p> <p>All welding is to conform to CSA standard W59 or better.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>7. <u>Demonstration</u></p> <p>City of Vancouver staff will be required to evaluate a demonstration unit during the evaluation process. Prefer demonstration to take place at City site. Unit to be available for evaluation for a minimum of four (4) hours within three (3) weeks of request being made by City of Vancouver staff. A list of all differences between tendered and demonstration unit shall be provided in writing prior to demonstration.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Earliest demonstration unit will be available. 2. Location of demo unit. 3. Length of evaluation time. 4. If list of differences between tendered and demonstration unit can be provided prior to demonstration. | |

REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
AND COMPLIANCE MATRIX

| A. <i>General</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <p>8. <u>Pre-Build Meeting</u></p> <p>It is mandatory that the contractor attend a pre-build meeting in Vancouver, British Columbia within one month of award of PO. The pre-build meeting is to ensure a clear understanding of the project requirements. The pre-build meeting is expected to take at least one full day. The contractor shall provide an engineer to be present at the pre-construction meeting. The engineer will address all engineering related questions for the truck as purchased and for all proposed changes. The engineer will have the 2D and/or 3D electronic drawings projected on screen and be able to provide dimensional data for proposed changes and proposed layouts. Full layout drawings are to be provided by the Contractor at the meeting.</p> <p>Layout drawings shall:</p> <ol style="list-style-type: none"> a) Be in colour and be on 11" x 17" paper. b) Include five (5) views of the truck with the doors closed (Top, Left, right, Front, Rear), four (4) views of the truck with the doors open (Top, Left , Right, Rear) and four (4) views of any walk in area (Top, Left, Right, Rear) c) Clearly show the overall length, height, width, wheelbase and cab-to-axle dimensions of the completed vehicle. d) Clearly show dimensions of all compartment door openings and usable space. e) Clearly show the angles of approach and departure in the maximum loaded condition to the nearest degree. f) Show all lighting packages. g) Show all scene lights, marker lights, speakers, horns, exhaust, tow points, exterior outlets, windows, exterior ladders and any other item important to the function of the vehicle. h) Show all trays, shelves, air system components, hydraulic components, tool boards, storage modules and any other items important to the function of the vehicle. i) Show any changes to the BID drawing as a revised drawing. Revised drawing shall have an annotation in the upper right hand side of the drawing showing the revision number, reason for the revision, date and who made the changes j) Include the following text block items <ol style="list-style-type: none"> i) Purchaser's name. ii) Body size and material type. iii) Chassis manufacturer and model number. iv) Unit description. v) Wheelbase (WB), cab to axle (CA) | |

REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
AND COMPLIANCE MATRIX

| <i>A. General</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <div>distance.</div> <div>vi) Overall length (OAL), overall width (OAW), overall height (OAH).</div> <div>vii) Scale, date, drawn by, drawing number and sheet number.</div> <div><u>State:</u></div> <div>1. Compliance with pre-build meeting requirement.</div> <div>2. Compliance with layout drawing requirements.</div> | |

REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
AND COMPLIANCE MATRIX

| <i>B. Inspection and Delivery</i> | Bidders to indicate compliance or deviations with specifications below |
|--|--|
| <p>1. <u>Pre-Delivery Inspections</u></p> <p>The Supplier is to contact the designated City of Vancouver representative to arrange for pre-delivery inspections of the apparatus. A minimum of thirty-five (35) working days notice shall be required prior to a requested inspection date. The Supplier shall at his/her expense, provide transportation, lodging, rental car and meal expenses for the pre-delivery inspections. Any travel distance greater than 300 kms shall be by non-stop commercial air travel. Minimum inspection requirements are:</p> <ul style="list-style-type: none"> a) Upon completion of installation of the body and equipment on to the frame, prior to painting. b) Upon completion of the unit. <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>2. <u>Delivery</u></p> <p>Delivery in less than 365 calendar days is required from the date of receipt of order from the City to the date of vehicle delivery F.O.B. City of Vancouver, Manitoba Yard or site designated. A schedule providing commencement date for work and completion date, including delivery of unit.</p> <p><u>State:</u></p> <p>Delivery date from receipt of order.</p> | |
| <p>3. <u>Chassis Handling</u></p> <p>Bidder will accept full responsibility for the transport and/or towing of vehicle during completion of all work provided for within this tender. In addition, bidder will ensure the vehicle is fully fueled prior to delivering it to the City of Vancouver, Manitoba Works Yards. Bidder is to certify that adequate insurance coverage is in place to cover any loss or damage to the apparatus while the vehicle is in the custody of the Supplier or the Supplier's agents.</p> <p><u>State:</u></p> <p>Compliance.</p> | |

REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
AND COMPLIANCE MATRIX

| <i>B. Inspection and Delivery</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <p>4. <u>Literature</u></p> <p>All manuals and documentation as specified in section C2.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>5. <u>Keys</u></p> <p>Five (5) full sets of keys provided at vehicle delivery. All locks should be keyed alike.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>6. <u>Service Tools</u></p> <p>Where special tools are required for routine service on any component of the apparatus, such tools shall be provided with the apparatus.</p> <p><u>State:</u></p> <p>Tools to be supplied with apparatus.</p> | |

REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
AND COMPLIANCE MATRIX

| <i>C. Literature and Training</i> | Bidders to indicate compliance or deviations with specifications below |
|--|--|
| <p>1. <u>Pre-fabrication Literature</u></p> <p>The following must be provided by the successful bidder prior to fabrication:</p> <ul style="list-style-type: none"> a) Weight distribution analysis, indicating the weights on the axles of the truck as supplied in operating condition with fuel tanks full and two (2) operators. b) Weight distribution analysis, indicating the weights on the axles of the truck as supplied in operating condition fully loaded. c) The legal maximum allowable weight on the front axle is 9,100 kg (20,062 lbs) as per the British Columbia Motor Vehicle Act Regulations. d) The legal maximum allowable weight on the rear axle is 9,100 kg (20,062 lbs), as per the British Columbia Motor Vehicle Act Regulations. e) Pre-production drawing. f) Warranty details. <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>2. <u>Delivery Literature</u></p> <p>The following to be provided by the successful bidder at time of vehicle delivery.</p> <ul style="list-style-type: none"> a) All documentation for registration and licensing b) A receiving report indicating all of the pertinent vehicle data, i.e. apparatus manufacturer, model, and serial number, contracting company name and signature of responsible company representative, paint manufacturer and paint numbers, all serial numbers of major components, vehicle and axle rated and curb weight ratings, tire data and pressures. c) A tare weight ticket from a certified scale for the fully fuelled, completed unit (must include individual axles) d) Two (2) copies of as built color drawings with dimensions (B Size) e) Hydraulic and electrical schematics, must be as built f) As-built wiring diagrams for low voltage and line voltage systems to include the following information (hard copies to be printed in colour and laminated on "B" size paper) <ul style="list-style-type: none"> i) Pictorial representations of circuit logic for all electrical components and wiring ii) Circuit identification iii) Connector pin identification | |

REQUIREMENTS
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| <i>C. Literature and Training</i> | Bidders to indicate compliance or deviations with specifications below |
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| <ul style="list-style-type: none"> iv) Zone location of electrical components v) Safety interlocks vi) Alternator-battery power distribution circuits vii) Input/output assignment sheets or equivalent circuit logic implemented in multiplexing systems g) 2 copies parts manuals - CD-ROM acceptable alternate h) Wherein the engine, transmission or other related components may not be included in the vehicle manuals, (Parts and Service) those additional manuals specific to the components, shall be included at time of delivery as well i) 2 copies service manuals - CD-ROM acceptable alternate j) <u>or</u> secured access to manufactures website where items g) and i) above are available at all times. Secured access to manufacturer's website is preferred. k) 3 copies operator manuals - CD-ROM <u>not</u> acceptable alternate l) 2 copies body parts and repair manual - CD-ROM acceptable alternate m) A complete check-off style preventative maintenance schedule checklist as recommended by the manufacturer to ensure full and satisfactory full and satisfactory service life n) Listing of special service tool and diagnostic equipment requirements o) A list of general maintenance part recommended, by part number, for on-hand parts stocking p) Stability and load test record q) Engineering certifications(s) r) Lubrication charts s) Inspection Procedures t) Apparatus body, chassis, and other component manufacturer's warranties u) Material Safety Data Sheets for any fluid that is specified for use on the apparatus v) Siren manufacturer's certification of the siren w) Written load analysis and results of the electrical system performance tests x) Custom Operations Manual; In addition to the manufacturers record of apparatus construction details, and the operations and service manuals, a custom operations manual shall be provided including the following information: <ul style="list-style-type: none"> i) The operations manual shall be specific to the manufacture of the vehicle. The manual shall detail the steps needed to operate all of the components involved to utilize complete functionality of the vehicle. Each device will have the appropriate start/stop sequences detailed for correct usage. Also detailed will be the appropriate Cautions, Warnings, Dangers and Limitations of Use that relate to operating the | |

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| <i>C. Literature and Training</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>vehicle.</p> <ul style="list-style-type: none"> ii) The manual will be prepared in a letter size 8.5" x 11" format and presented in a three-ring binder. Colour photos and diagrams of key components will be included with the text. iii) Included will be tabloid sized 11" x 17" detailed flow charts for the instruction on operating major components. The inventory of equipment belonging to the City shall be detailed by compartment location. The manual shall be separated by tabs. The manual shall contain a table of contents and index. iv) A CD-ROM containing an Adobe Acrobat file (PDF) of the manual shall be supplied for use on the workstations in the vehicle and for printing additional copies. <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. List the exact full titles of manuals supplied, and the quantity of each manual, so that it becomes very easy to make a check off list at the time of delivery. 3. If special service tools or diagnostic equipment are required for in-house maintenance/repairs. | |
| <p>3. <u>Operator Training</u></p> <p>Provide operator training to the Vancouver Police Department members including:</p> <ul style="list-style-type: none"> a) Safe operation, security, tactical, safety and convenience features of the vehicle b) All daily maintenance, servicing, and inspections. <p>Training to take place at a site designated by the City of Vancouver. Training to be carried out by factory or factory trained personnel. Training to include a minimum of one (1) eight-hour (8 hour) session. Session to take place between hours of 7am and 3pm. Training is to occur immediately prior to the unit going into service.</p> <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. How much notice is required prior to training. 3. Available training aids. 4. Actual training time. | |
| <p>4. <u>IT Training</u></p> <p>Provide an Information Technology (IT) engineer to be</p> | |

REQUIREMENTS
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AND COMPLIANCE MATRIX

| <i>C. Literature and Training</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>present at the time of delivery and demonstration for up to three (3) consecutive days. The IT engineer will demonstrate all IT related components installed by the Supplier and provide initial instruction to representatives of the City regarding the operation, care and maintenance of the equipment supplied. The City will be responsible for the integration and programming of any on-board vehicle systems with land based systems.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Available training aids. | |
| <p>5. <u>Technician Training</u></p> <p>Provide training to the City of Vancouver Garage technicians in the factory prescribed maintenance, diagnostics and repairs procedures, especially related to, trouble-shooting and electrical diagnostics. Training to be carried out by factory or factory trained personnel. Training to include a minimum of two (2) eight-hour (8 hour) sessions. One session to take place between hours of 7am and 3pm and another between the hours of 3pm and 11pm. There will be approximately ten (10) technicians attending each session.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Your training capability as described above. 2. Training locations. 3. Available training aids. 4. Availability of training sessions. 5. Training on essential major operating components not made by the vehicle manufacturer but utilized. 6. If technician training includes two sessions as stated above. | |

REQUIREMENTS
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| <i>D. Warranty</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>1. <u>Warranty Coverage</u></p> <p>The supplier is to be the sole contact for all warranty claims.</p> <p>Minimum warranty coverages are as follows:</p> <ul style="list-style-type: none"> a) A minimum one year of warranty coverage is required for parts, labour, and freight. b) A minimum ten (10) year warranty is required against paint blistering, peeling, cracking, and corrosion due to faulty materials or workmanship. Longer warranty preferred. c) A lifetime warranty on frame if modified. <p>Warranty coverage is to be started when the unit is put into service. A letter will be sent out to the vendor to indicate the start date of service.</p> <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Contact name and phone number for supplier warranty administrator. 3. Standard applicable warranty and terms on vehicle, body, and components. Attach a copy of warranty documents to be delivered with each vehicle. 4. Standard applicable warranty for associated componentry and parts not covered, or separate from the vehicle coverage noted above. | |
| <p>2. <u>Supplier Warranty Process</u></p> <p>The supplier must submit a monthly report of warranty repairs that were completed on the equipment. The report must include the following details: date started and completed, the total repair cost, any deductible paid by the City of Vancouver, and description of repair. The total repair cost represents what the actual repair would cost if it wasn't repaired under the warranty program.</p> <p>The Supplier must provide a failure analysis report with a root cause analysis for all warranties that are denied.</p> <p><u>State:</u></p> <p>Compliance.</p> | |

REQUIREMENTS
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| <i>D. Warranty</i> | Bidders to indicate compliance or deviations with specifications below |
|--|--|
| <p>3. <u>In-House Warranty Work</u></p> <p>The movement of vehicles and equipment between the City and dealer contributes to additional costs and unpredictable “downtime” to the users often for minor issues. To reduce these costs and downtime, the City prefers to have a warranty agreement with the manufacturer whereby warranty work can be completed by the City Equipment Services shop and for which we are reimbursed.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. If an in-house warranty agreement is provided. 2. Provide the procedures and terms of each warranty provision. 3. Warranty fee reimbursement provisions. | |
| <p>4. <u>Non O.E.M Part Use</u></p> <p>The City of Vancouver purchases some parts by tender. The parts purchased may not be O.E.M. parts.</p> <p><u>State:</u></p> <p>In what way warranties would be affected by this policy.</p> | |
| <p>5. <u>Settlement Timelines</u></p> <p>Settlement of any warranty claim is to be completed within 30 days of receipt of that warranty claim. Late payment will influence possibilities of future tenders.</p> <p><u>State:</u></p> <p>Compliance.</p> | |

II. DETAILED CHASSIS SPECIFICATIONS

| A. <i>Chassis</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>1. <u>Chassis</u></p> <p>A conventional type cab and chassis having capability for one (1) driver and one (1) passenger. Chassis must be selected from an Original Equipment Manufacturer (OEM) supplier that is currently producing a commercial medium duty truck chassis for the North American market. Chassis must be fully validated, and supportable via a network or OEM Dealerships/Service Centres in British Columbia. Chassis must have single rear axle to alleviate need for additional driver licensing.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Make, model and year of chassis. 2. If chassis is from an OEM product line. 3. If chassis is a commercial type. 4. Number of rear axles. 5. Vehicle class. 6. If chassis is it fully validated and supportable via a network of OEM Dealerships/Service Centres in British Columbia. | |
| <p>2. <u>Vehicle Weight</u></p> <p>Proposed chassis must have a Gross Vehicle Weight Rating sufficient to support vehicle outfitted as per full tender specification, a full fuel tank, lubricants and other chassis fluid tanks or reservoirs, and a minimum additional equipment payload of 1,814 kg (4,000 lbs).</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Chassis Gross Vehicle Weight Rating. 2. Front axle rating. 3. Rear axle rating. 4. TARE (curb weight). 5. Front axle curb weight. 6. Rear axle curb weight. 7. Horizontal and vertical distance from front axle to vehicle centre of gravity. | |
| <p>3. <u>Wheelbase</u></p> <p>Chassis wheelbase will be approximately 240". Wheelbase</p> | |

REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
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| A. <i>Chassis</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <p>to be set to ensure vehicle stability, vehicle weight requirements can be achieved, and should be minimized for vehicle manoeuvrability.</p> <p><u>State:</u> Wheelbase.</p> | |
| <p>4. <u>Frame</u></p> <p>A clean top of frame for the full CA distance is required for mounted equipment. Frame rails to have a minimum yield strength and section modulus sufficient to fully support vehicle weight and payload.</p> <p>A double or centre drop frame configuration is preferred in order to keep ingress/egress height lower for crew members.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Frame rail dimensions, yield strength and Section Modulus. 2. If a clean top of rail CA is offered. 3. If frame will have a double or centre drop frame. | |
| <p>5. <u>Frame Rail Height</u></p> <p><u>State:</u></p> <p>Unladen and laden top of rail height to ground measurement.</p> | |
| <p>6. <u>Turning Radius</u></p> <p>Curb to curb turning radius of the completed vehicle to be minimized. Smaller turning radius preferred to increase vehicle manoeuvring in confined spaces.</p> <p><u>State:</u></p> <p>Curb to curb turning radius.</p> | |
| <p>7. <u>Paint</u></p> <p>Cab to be ordered from Original Equipment Manufacturer in gloss black exterior colour.</p> <p><u>State:</u></p> | |

REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
AND COMPLIANCE MATRIX

| A. <i>Chassis</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| 1. Compliance. 2. Paint code. | |
| 8. <u>Front End</u> Tilting front end required for ease of access to engine compartment. <u>State:</u> Compliance. | |
| 9. <u>Front Bumper</u> Full width front bumper. <u>State:</u> Compliance. | |
| 10. <u>Tow Hooks</u> Two (2) front frame mounted tow hooks. <u>State:</u> Compliance. | |
| 11. <u>Mud Flaps</u> Frame mounted mud flaps front and rear wheels. Mudflaps must cover the full width of the wheels, and be equipped with anti sail bars. <u>State:</u> Compliance. | |

REQUIREMENTS
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| <i>B. Cab</i> | Bidders to indicate compliance or deviations with specifications below |
|--|--|
| <p>1. <u>Front Compartment and Dash Console</u></p> <p>A safe operator's console dash defined as requiring minimal eye movement from the roadway. Gauge cluster must consist of odometer, trip display, metric speedometer, tachometer, oil pressure, coolant temperature, fuel level, low battery voltage, and fault code display(s) as necessary. Operator warning system, both visual and audible, to include low oil pressure, low coolant level, high coolant temperature engine functions.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Describe console. 2. Describe gauges, only those in addition to ones listed. 3. State type of warning system. | |
| <p>2. <u>Audio and Clock</u></p> <p>Vehicle shall have an AM/FM radio and digital clock at minimum.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Additional features. | |
| <p>3. <u>Internal Rear View Mirror</u></p> <p>OEM internal rear view mirror.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>4. <u>Seating</u></p> <p>The OEM driver and passenger front seats shall be maintained if possible. Driver and passenger seats to be individual captain type with folding seat back. Driver and passenger seats to have air adjust, and be able to move forward and back. Cover material to be cloth type fabric in a dark colour. Seat will be fitted with occupant seat belts in compliance with the B.C. Motor Vehicle Act.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. If OEM seats are maintained. 2. Type of fabric and colour. | |

REQUIREMENTS
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| <i>B. Cab</i> | Bidders to indicate compliance or deviations with specifications below |
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| 3. Seat belts. | |
| 5. <u>Steering</u> Tilt and height adjustable steering wheel preferred. Unit will incorporate power steering assist. <u>State:</u> 1. Steering wheel adjustment. 2. Power steering type. | |
| 6. <u>Heater/Defroster/Air Conditioning</u> A heater/ventilation/air conditioning system complete with multi-position blower fan. Variably adjustable heating vents for operator comfort and window "defrosting". The defrosting system must be capable of dealing with local conditions - cool temperatures with high humidity. <u>State:</u> 1. Type of blower control. 2. System air movement and capacity in CFM. 3. Heater/defroster fan type and speed control. 4. Air conditioning. | |
| 7. <u>Airbag</u> The OEM driver's and front passenger airbag systems are to be maintained. <u>State:</u> Compliance. | |
| 8. <u>Power Windows and Locks</u> Power windows and locks preferred if available. <u>State:</u> If available. | |
| 9. <u>Interior Lighting</u> OEM lighting with base chassis cab for the driver and front | |

REQUIREMENTS
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| <i>B. Cab</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <p>seat passenger. Lighting to be on-demand lighting that will only come on when operator turns on. It will not come on automatically when the doors are opened.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. If lighting is configured as on-demand. 2. If lights will come on when the doors are open. | |
| <p>10. <u>Centre Console</u></p> <p>All additional controls and monitoring systems for ancillary equipment will be incorporated into a console that is centrally mounted on the floor between the driver and passenger seat. The centre console should be within easy reach of the driver and passenger, and the driver should be able to activate all controls from a seated upright position. The rear portion of the console shall be provided with open top storage for notebooks or maps. The final design of console shall be determined at the pre-construction meeting.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>11. <u>Grab Handles</u></p> <p>Exterior grab handles on the driver and passenger sides to assist with vehicle access.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>12. <u>Side Mirrors</u></p> <p>Side mounted rear view mirrors, with rectangular heads having a minimum 6" x 14" surface complete with 6" diameter convex heads. Mirrors should be of the break away type and heated. Mirrors should be mounted to the front "A" pillar, and aligned to be fully viewed via from the driver seat. Side mirrors must be sized to function with mounted truck body.</p> <p><u>State:</u></p> <p>Compliance.</p> | |

REQUIREMENTS
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| <i>B. Cab</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>13. <u>Cab Steps</u></p> <p>Two steps on each of driver and passenger side doors. Steps to be non-slip, and allow easy access to any concealed chassis batteries or fuel tanks.</p> <p><u>State:</u></p> <p>Compliance.</p> | |

REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
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| <i>C. Suspension</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>1. <u>Front Axle</u></p> <p>Front axle minimum weight bearing capability to meet gross vehicle weight rating and payload specifications described in Section II.A.2.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Front axle capacity. 2. Make and model of front axle. | |
| <p>2. <u>"Setback" Axle</u></p> <p>A set back front axle allowing for ease of manoeuvrability and decreased turning radius turning radius is preferred. A front steering axle wheel degree cut of 50° or greater.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. If set back axle provided. 2. Steering axle wheel kickout. 3. Curb to curb turning radius. | |
| <p>3. <u>Rear Axle</u></p> <p>Single speed rear axle with minimum weight bearing capability to meet gross vehicle weight rating and payload specifications described in Section II.A.2.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Make and type. 2. Capacity. 3. Maximum road speed. 4. Axle Ratio. | |
| <p>4. <u>Suspension</u></p> <p>Front and rear suspension with capacity matching front and rear axle load ratings at minimum. Standard tapered variable rate leaf springs front suspension required complete with matched shock absorbers. Air bag rear suspension required complete with matched shock absorbers.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Make, model, and capacity of front suspension. | |

REQUIREMENTS
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| <i>C. Suspension</i> | Bidders to indicate compliance or deviations with specifications below |
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| 2. Make, model, and capacity of rear suspension. 3. Front shock absorber make and model. 4. Rear shock absorber make and model. | |
| 5. <u>Wheel Rims</u> Hub piloted, steel, disc type wheels. <u>State:</u> 1. Material, make and type of wheel. 2. Dimensions for wheel. | |
| 6. <u>Tires</u> All position 11R22.5 tires required for all wheels. Prefer Michelin brand. The transmission/speedometer gear to be matched to the wheel/tire size. Independent tire loading must be less than 100 kg/cm of tire width as per British Columbia Motor Vehicle Act Regulations. <u>State:</u> 1. Make and type. 2. Independent tire loading per cm of tire width. 3. Maximum speed rating of tires. | |
| 7. <u>Spares</u> One (1) fully assembled full size wheel and tire assembly to act as a spare. There is no requirement to mount or carry this assembly on the vehicle. <u>State:</u> Compliance. | |

REQUIREMENTS
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| <i>D. Air Brakes</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>1. <u>Air Brakes</u></p> <p>Four (4) wheel air braking system meeting B.C. Motor Vehicle Safety Act regulations for stopping distances. System must be capable of applying adequate braking power for a fully loaded chassis on a 25% grade. Air brake system must be fully in compliance with the B.C. Motor Vehicle Safety Act and B.C. Commercial Vehicle Act.</p> <p>The unit brake system shall incorporate anti-wheel lock technology (ABS). The unit, made up of controller, wheel speed sensors and modulators, shall be secured within safe areas of the frame and drive components and be easily accessible for servicing as required. Warning light and in-cab alarm to signal a malfunction.</p> <p>Air brake system shall incorporate the following components:</p> <ul style="list-style-type: none"> a) Air compressor - Air compressor to have sufficient capacity, including safety margin to operate air brake system. A minimum compressor output of 15.5 CFM should be given. b) Air dryer - Replaceable air dryer capable of removing accumulating brake system debris and water. A Meritor cartridge type or equivalent dryer, complete with desiccating filter and alloy debris filter should be supplied. c) Low Air Warning - Both audible and visual brake system low air warning devices inside the cab for operator's visual acuity and safety. Easily read air pressure gauge within the dash cluster must be provided. d) Automatic Drain Valves - Should have automatic drain valves, to be located at the air supply reservoir, primary reservoir and secondary reservoirs. e) Air Lines - Air lines should be "synflex" nylon type tubing material colour coded for ease of serviceability and routed to minimize exposure to damage. Line materials should meet SAE J-1402 at articulation points. Stainless steel braided tube for air compressor discharge line should be used. f) Brakes - Standard air brake system of drum and shoe S-cam type, or City approved equivalent). Prefer a minimum material thickness of 0.86" (2.19 cm) for all linings should be provided. Non-asbestos type is required. g) Slack Adjusters - Automatic slack adjusters being Meritor long stroke or City approved equivalent. h) Dust Shields - Dust shields on both front and rear axles. i) Air Brake Chambers - Long stroke air brake chambers | |

REQUIREMENTS
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| <i>D. Air Brakes</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>required. Rear "parking" spring chambers activated from dash mounted control valve and complete with anti-compounding control. Brake chambers should be high mount for maximum ground clearance.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. If air brake system is fully in compliance with above Acts and Regulations. 2. If "ABS" provided or if available. 3. Make and model of ABS. 4. Make, model and capacity of air compressor. 5. Make, model and capacity of air dryer. 6. Type of low air warning. 7. If drain valves offered and locations. 8. Type of airline material. 9. Make and type of brake shoes and drum. 10. Specification measurements of brake shoes and drum. 11. If non-asbestos type brakes are used. 12. Make and type of slack adjuster. 13. If dust shields are offered. 14. Make and model of brake chambers. 15. Size specifications for brake chambers. 16. If brake chambers are long stroke. 17. Ground clearance for brake chambers. | |

REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
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| <i>E. Powertrain</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>1. <u>Engine Ratings</u></p> <p>An internal combustion diesel engine having the following minimum ratings: SAE HP - Min. 300 HP @ 2400 RPM Peak Torque - Min. 540 lbft at 1600 RPM Engine must be able to operate on B5 biodiesel fuel. Prefer engine to operate on B20 biodiesel fuel.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Make and model. 2. SAE HP and RPM. 3. Peak Torque at RPM. 4. Provide torque curve chart. 5. Maximum cruising speed with vehicle at maximum gross vehicle weight rating. 6. If engine will operate on B5 fuel. 7. If engine will operate on B20 fuel. 8. If warranty is valid with operation on B5 fuel. 9. If warranty is valid with operation on B20 fuel. 10. Average fuel economy value for City driving conditions. | |
| <p>2. <u>Driveline</u></p> <p>Dual wheel, two (2) wheel drive at rear. Driveline gear ratio sized to meet speed specifications.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Driveline gear ratio. | |
| <p>3. <u>Transmission</u></p> <p>Five (5) or six (6) speed Allison Automatic type. Transmission gear ratios must be capable of meeting tendered engine horsepower, torque, and cruising speed specifications. The maximum top speed of the completed vehicle shall not exceed 105kph, or the manufacturer's maximum speed rating for the tires installed on the vehicle, whichever is lower.</p> <p>Vehicle must be able to sustain a cruising speed of 100 km/hr at maximum gross vehicle weight rating. Proponents shall provide a SCAAN analysis.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Make and model of transmission. | |

REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
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| <i>E. Powertrain</i> | Bidders to indicate compliance or deviations with specifications below |
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| <ol style="list-style-type: none"> 2. Number of speeds. 3. Provide Allison SCAAN analysis and options for consideration. 4. Top speed. 5. Maximum grade at 50kph. 6. Maximum speed on 6% grade. 7. Time to accelerate to 50 kph on level ground. 8. Startability. 9. Gradeability at 90 kph. | |
| <p>4. <u>Diesel Exhaust Pollution Reduction Technologies</u></p> <p>Ddiesel exhaust pollution reduction technology required using Selective Catalytic Reduction. Reduction technology must meet U.S. Environmental Protection Agency 2010 standards to reduce diesel exhaust pollution.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Technology used. 2. What components the exhaust after treatment device(s) are comprised of. 3. Size of diesel emission fluid (DEF) tank. State expected refill rate of DEF. Also state any components that need to be changed or refilled. 4. Describe ideal duty cycle for automatic or passive engine regeneration. 5. Describe steps to initiate forced or stationary regeneration and any limitations to the regeneration process. 6. If diesel particulate filter (DPF) is used, state make and model and describe if the filter can be cleaned and if any equipment is required to be able to clean filter. 7. If DPF is used please provide length of time for regeneration? 8. If there are any additional distinguishing features of the exhaust system? 9. Any exhaust systems concerns with this vehicle being operated for short trips at low speeds, and high idling. | |
| <p>5. <u>Electronic Controls</u></p> <p>Engine functions and other related powertrain accessories (i.e. transmission) controlled and monitored through an electrical control module(s) to optimize fuel economy, minimize regulated exhaust emissions, load sensing and related vehicle tasks.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Type of engine controls. | |

REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
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| <i>E. Powertrain</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| 2. Compliance with EPA Standards. 3. Location of ECU (s). | |
| 6. <u>Fuel System</u> Electronically governed fuel delivery system. Fuel system, in addition to supplied filtration, shall include a Racor fuel/water separator having 10 micron media. <u>State:</u> 1. Type of injection. 2. Racor fuel/water separation. | |
| 7. <u>Coolant System</u> Coolant system, in addition to having sufficient capacity including moderate trailer towing, shall have silicone hoses (or equivalent), filter/conditioner and anti-freeze solution having minimum cold weather protection to -25° Celsius. <u>State:</u> 1. Type of hoses. 2. Type of filtration. 3. Type of anti-freeze solution. | |
| 8. <u>Radiator</u> A long life radiator having safe cooling capacity for the engine and transmission. <u>State:</u> Radiator type and capacity. | |
| 9. <u>Air Induction</u> The air induction system composed at a primary and secondary element including an air restriction indicator for timely and effective maintenance <u>State:</u> 1. Type of filtration and location. 2. Air restriction indicator. | |

REQUIREMENTS
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| <i>E. Powertrain</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>10. <u>Engine Throttle Control</u></p> <p>Electronic throttle control.</p> <p><u>State:</u></p> <p>Type of engine control.</p> | |
| <p>11. <u>Fuel Tank</u></p> <p>An 80 U.S. gallon capacity fuel tank complete with non-spill venting. Higher capacity preferred.</p> <p><u>State:</u></p> <ol style="list-style-type: none">1. Tank capacity.2. Location. | |
| <p>12. <u>Exhaust</u></p> <p>Vertically mounted exhaust vent on the driver side of the chassis is preferred so as not to interfere with body compartments. Exhaust piping and discharge outlet shall be locate or shielded so as not to expose any portion of the vehicle or equipment to excessive heating.</p> <p><u>State:</u></p> <ol style="list-style-type: none">1. Mounting location.2. If a heat shield will be used between the body and the exhaust pipe.3. If exhaust system components are mounted outside of frame rails, describe any impacts to body mounted compartments. | |

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| <i>F. Chassis Electrical System</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <p>1. <u>Electrical System</u></p> <p>The 12 V DC charging system must have full capability to maintain battery cranking capacity, chassis electrical equipment, mounted equipment and traffic warning lighting system. This will require a minimum 320 Amp Leece-Neville or equivalent alternator.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. What is offered. 2. Alternator make and model. 3. Amperage of alternator. | |
| <p>2. <u>Starter</u></p> <p>Starter motor having being specified by the engine manufacturer for the engine model and being capable of providing and maintaining the cranking power required in the Vancouver area ambient temperature ranges for winters. Thermal over crank protection required to prevent overheating due to excessive cranking durations and extended service life.</p> <p><u>State:</u></p> <p>Make and model.</p> | |
| <p>3. <u>Battery(s)</u></p> <p>Battery(s), maintenance free type, of sufficient capacity to power the starter at the lowest ambient temperature range encountered within the lower mainland. A minimum of two (2) 12 VDC 925 CCA batteries connected in parallel.</p> <p>Starting battery(s) to be isolated from auxiliary batteries using a sure power battery separator 1315-200 or equivalent or higher rating.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Reserve capacity rating cold cranking amperes. 2. Make and model. 3. Battery location. | |
| <p>4. <u>Boost Stud</u></p> <p>Vehicle shall have two colour coded battery jumper studs to allow for easy boost if required, or to provide</p> | |

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| <i>F. Chassis Electrical System</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>assistance to another vehicle.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance 2. Location of battery boost studs. | |
| <p>5. <u>Battery Disconnect Switch</u></p> <p>Cab mounted battery disconnect switch.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>6. <u>Fuse Box</u></p> <p>Automotive style waterproof resettable circuit breakers required. Power distribution system(s) shall utilize, where possible, resettable manual circuit breakers. The electrical system must incorporate SAE blade type fuses as standard equipment where resettable circuits are not.</p> <p><u>State:</u></p> <p>Type of circuit breakers.</p> | |
| <p>7. <u>Wiring</u></p> <p>All wiring to be colour coded continuously numbered, encased in plastic "loom" to maximize protection from corrosion and with sealed connectors. All wiring passing through bulkheads, decks, or deck heads shall be insulated with bulkhead connectors. Wiring must be secured with clamps every 18 inches or conduited and securely attached to vehicle.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Accessory power and sealed connectors for stop and turn. 2. Wiring securement method. | |
| <p>8. <u>Horn</u></p> <p>Dual electric.</p> <p><u>State:</u></p> <p>Compliance.</p> | |

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| <i>F. Chassis Electrical System</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <p>9. <u>Auxiliary Power Outlet</u></p> <p>Auxiliary power outlet located in cab.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>10. <u>FMVSS/CMVSS Lighting Requirements</u></p> <p>All tail/brake lamps, turn signal lamps, clearance and marker lamps must be in compliance with FMVSS/CMVSS standards as set out by the Canadian Motor Vehicle Safety Regulations. All lighting fixtures are preferred to be of the LED type except for the backup lamp(s). Flush mounted clearance identification lamps are preferred.</p> <p><u>State:</u></p> <ol style="list-style-type: none">1. Compliance.2. If LED lighting used, and where. | |
| <p>11. <u>Auto High Idle Switch</u></p> <p><u>State:</u></p> <p>What is available.</p> | |

III. DETAILED BODY SPECIFICATIONS

| <i>A. Body Construction</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>1. <u>Dimensions</u></p> <p>Approximate overall dimensions for body to be as follows (dimensions may be adjusted to suit with prior approval):</p> <ul style="list-style-type: none"> a) length: 270" outside dimension b) width: 96" outside dimension, not including external awnings, mirrors, handles, etc. c) interior height: 88" d) Cab to axle: 176" <p><u>State:</u></p> <p>Bidder measurements.</p> | |
| <p>2. <u>Body and Frame</u></p> <p>The body and frame shall be designed and built to support the body and deck fully loaded to the maximum payload capacity of the chassis without damage or deformation, and with full consideration of the purpose of the completed vehicle and its final GVWR. Any modification must be performed in a manner that is acceptable to the OEM.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>3. <u>Welding</u></p> <p>No welding shall be done on the chassis frame.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>4. <u>Construction Details</u></p> <p>Provide a detailed description (on a separate sheet) of the suggested construction. Details should include: SAE/CSA specifications of materials used, size/gauge, spacing, grade, fasteners, welding specs, etc as a minimum (photos may be used to assist with clarification).</p> | |

REQUIREMENTS
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| A. <i>Body Construction</i> | Bidders to indicate compliance or deviations with specifications below |
|--|--|
| <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Flooring construction. 2. Wall construction. 3. Roof construction. 4. Door and frame construction. 5. Slide out construction. 6. Interior/Exterior lining. 7. Cabinetry and compartment construction. | |
| <p>5. <u>Material Compliance</u></p> <p>All materials used in the fabrication of the unit shall be new and unused conforming to the applicable CSA grade for its use.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>6. <u>Aluminum/Steel Interfaces</u></p> <p>All interfaces between aluminium and steel are to be separated by a minimum 1.58 mm (1/16") thick rubber or neoprene sheet and are to be bolted through with galvanized or stainless steel bolts and non-conductive bushings.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Framework design. 2. Frame type, material, and dimension. 3. Roll-over protection. 4. Factor of safety in pillar/cross member design. 5. If OEM pillars and supports require replacement to support corresponding loads. | |
| <p>7. <u>Body Sub-frame</u></p> <p>The body shall have a fully welded structural sub-frame including full width cross members. Cross members shall be located intermittently along the full body length, and as necessary make a sub-frame capable of supporting loading as described in section III.A.2 . The sub-frame shall be constructed from 2" x 6" x 1/4" 6061-T6 aluminum tubing. The chassis frame shall be fitted with 1/4" thick UHMWPE rail cap to isolate the body frame members from direct contact with the chassis frame rails.</p> | |

REQUIREMENTS
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| A. <i>Body Construction</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Framework design. 2. Frame type, material, and dimension. 3. Roll-over protection. 4. Factor of safety in pillar/cross member design. 5. If OEM pillars and supports require replacement to support corresponding loads. | |
| <p>8. <u>Body Mounting</u></p> <p>Body is required to have minimum six (6) spring loaded body mounts. The mounting system shall allow the body and subframe to act as one (1) component, separate from the chassis. As the chassis frame twists under driving conditions, the spring mounting system shall eliminate any stress from being transferred into the body. The spring loaded body mounts shall also prevent frame side rail or body damage caused by unevenly distributed stress and strains due to load and chassis movement.</p> <p><u>State:</u></p> <p>Quantity and type of mounts.</p> | |
| <p>9. <u>Wheel Wells</u></p> <p>Wheel wells shall be fully boxed in. Sufficient space allocation must be made within the wheel well to accommodate the wheel/tire combination, including when tire chains are fitted. The full suspension travel (jounce/rebound) of the assemblies must be accounted for. Additionally the front wells are to accommodate the full range of the vehicle's steering geometry. If wheels extend beyond body, wheel fenders must be provided.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Wheel well material. 3. If wheels extend beyond body. 4. If wheel fenders provided. | |
| <p>10. <u>Roof</u></p> <p>The roof shall be integral with the body and shall be all welded construction. Roof must be able to support all roof mounted equipment, one (1) 250 lb person (in the event that roof access is required for maintenance or repair.</p> | |

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| A. <i>Body Construction</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <p>Roof shall be sufficiently bowed to properly shed water.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Material and material thickness. | |
| <p>11. <u>Rear Bumper and Platform</u></p> <p>A full width rear bumper and platform are required with an approximate width of 18", mounted at a height for easy ingress/egress from the rear of the vehicle. If the height of the step is greater than 12" from the ground to the step surface an additional fold down lockable step is required. Platform and step should be covered in an NFPA compliant non-slip tread-plate, and be able to support 1000 lbs. each (up to four (4) equipped personnel). There shall be a minimum ½" space between the body and bumper to allow for water drainage. Departure angle should be no less than 10 degrees from the rear wheels. Rear bumper shall have a mounted boot cleaner.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Rear bumper and platform height. 2. Platform (and step) capacity. 3. If additional step is required. 4. Non-slip tread plate compliance. 5. Rear departure angle. | |
| <p>12. <u>Rub Rails</u></p> <p>There shall be side rub rails provided below the compartment door openings along the full length of the body on both the street side and curb side. The rub rail shall be fabricated from aluminum extrusion, with aluminum end caps. It shall be bolted to the body using stainless steel bolts and rubber isolation mounts to prevent damage to the body.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Extrusion dimensions. 3. Rubber isolation mount dimensions 4. Any other features of rub rails. | |
| <p>13. <u>Rear Tow Hooks</u></p> <p>Two (2) rear mounted tow hooks securely attached to the</p> | |

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| <i>A. Body Construction</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>body sub-frame, below the apparatus body. The tow hooks shall preferably have a black powder coat finish.</p> <p><u>State:</u></p> <ol style="list-style-type: none">1. Compliance.2. Tow hook rating.3. Material and finish. | |
| <p>14. <u>License Plate Mounting</u></p> <p>One (1) license plate mounting system shall be supplied and installed on the rear of the body, including required lighting.</p> <p><u>State:</u></p> <ol style="list-style-type: none">1. Compliance. | |

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| <i>B. Vehicle Finishing</i> | Bidders to indicate compliance or deviations with specifications below |
|--|--|
| <p>1. <u>Prior to Painting</u></p> <p>Prior to painting:</p> <ul style="list-style-type: none"> a) All surfaces to be sandblasted to remove all surface oxidation and imperfections. b) All surface weldments and joints to be sanded. c) All electrical, hoses, valves, couplers, fittings, exhaust, etc. shall be properly masked or preferably installed after painting of the body. d) All body and components shall be disassembled prior to painting to ensure that full coverage of finish paint beneath removable components. <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Corrosion paint manufacturer and product code. | |
| <p>2. <u>Rust and Corrosion Resistance</u></p> <p>The unit shall be treated with rust and corrosion resistant coatings to protect the vehicle components from corrosion due to operating conditions in the Canadian winter and in proximity to salt water.</p> <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Corrosion paint manufacturer and product code. | |
| <p>3. <u>Exterior Paint</u></p> <p>The unit exterior shall be fully prepared in accordance with the paint manufacturer's instructions. Unit exterior shall be painted gloss black to match the supplied chassis. Manufacturer's dry times must be followed to ensure maximum adhesion. Touch up paint shall be provided with completed vehicle.</p> <p>The body paint shall be free of bubbling or peeling as a result of a defect in the method of manufacture or application for a period of ten (1) years or 160,934 kms (100,000 miles), whichever occurs first.</p> <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Exterior paint manufacturer and paint code. 2. Make and type of undercoating provided. 3. Compliance with manufacturer's dry times. | |

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| <i>B. Vehicle Finishing</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| 4. If touch up paint provided. 5. Paint warranty terms. | |
| 4. <u>Expanded Metal Surfaces</u> Any expanded metal surfaces to be powder coated or electrostatically painted in the same color as the chassis. <u>State:</u> Compliance. | |
| 5. <u>Non-Ferrous Tanks</u> Stainless steel or aluminum tanks do not require coatings. <u>State:</u> Compliance. | |
| 6. <u>Post Painting</u> The following items must be installed after the full hardening of painted surface a) All decals, name plates, tool compartments, mud flaps and electrical fixtures. b) Isolation tape or gaskets between the body and exterior components such as warning and DOT lights, handrails, ladder, steps, door hardware, and miscellaneous items to prevent the damage to the finished painted surfaces. c) Exterior components. Components shall be fastened to body using either plastic inserts into body metal with stainless steel screws or zinc coated nutserts into body surface using stainless steel bolts to prevent corrosion from dissimilar metals. <u>State:</u> 1. Compliance. 2. Exterior component fastening method. | |
| 7. <u>Interior Walls and Ceiling Finish</u> Interior walls and ceiling shall be clad with 3/8" plywood having a minimum 1" of insulation. Interior vertical plywood shall be clad with white board material that is capable of being written on the upper portion of the walls, and carpet on the lower portion for sound | |

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| B. Vehicle Finishing | Bidders to indicate compliance or deviations with specifications below |
|---|---|
| <p>insulation. Board should be mounted in sheets to minimize seams. It is preferable that all seams align with cube corners. Ceiling shall be clad with carpet as well for sound insulation.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Insulation material. 2. Insulation thickness. 3. White board manufacturer, product line, and color code. 4. Carpet manufacturer, product line, and color code. | |
| <p>8. <u>Interior Floor Finish</u></p> <p>Interior floor shall be clad with 3/4" plywood having a minimum 2" of insulation. Plywood shall be covered in a heavy duty non-slip flooring material such as Lonseal Lonplate II or City approved equivalent. Dark grey or black color preferred.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Insulation material. 2. Insulation thickness. 3. Floor manufacturer, product line, and color code. 4. Interior floor application material, manufacturer, and paint code. 5. If drainage towards door openings is established. | |
| <p>9. <u>Vehicle Marking</u></p> <p>Provide and install vehicle marking package. All lettering shall be retroreflective and white in color. Package to include:</p> <ol style="list-style-type: none"> a) Vancouver Police Department crest on chassis doors b) "Vancouver Police" decal on body as per drawing c) "Multi-Purpose Command Vehicle" decal on body as per drawing d) Chevron reflective stripe shall cover at least 50 percent of the rear-facing vertical surfaces, visible from the rear of the vehicle. Chevron pattern to be sloping downward and away from the centerline of the vehicle at an angle of 45 degrees. Each stripe shall be 6" width and be made using 3M Diamond Grade. There shall be a 3M UV over laminate to protect chevron striping from UV rays, scene damage, and everyday used. Panels shall have a minimum 10 year warranty for material failure and colorfastness. <p>All retroreflective materials shall conform to the</p> | |

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| <i>B. Vehicle Finishing</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>requirements of ASTM D4956, Section 6.1.1 for Type I Sheeting. All retroreflective materials used that are colors not listed in ASTM D 4956, Section 6.1., shall have a minimum coefficient of retroreflection of 10 with observation angle of 0.2 degrees and entrance angle of -4 degrees. Any printed or processed retroreflective film construction used shall conform to the standards required of an integral colored film as specified in ASTM D 4956, Section 6.1.1.</p> <p>A color graphics proof of the marking package shall be provided for approval by the Vancouver Police Department prior to installation. The graphics proof shall be submitted on 8.5" x 11" sheets with front, sides, rear and plan views, each on one (1) sheet. In addition if there is any special art work an additional sheet shall be provided showing all details.</p> <p><u>State:</u></p> <ol style="list-style-type: none">1. Compliance.2. Decal material.3. Any recommended additional markings. | |

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| <i>C. Doors</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>1. <u>Doors</u></p> <p>The body shall have one rear entry door and one curb side door above the rear wheels.</p> <p>Each door shall:</p> <ol style="list-style-type: none"> Have an opening approximately 30" wide by a minimum of 75" tall. Be lockable from both the interior and exterior Be locked and unlocked separately from the cab/chassis doors Be equipped with a grounding microswitch to indicate when the doors are not properly shut Be lined the same as the unit interior Be hung using stainless steel hardware with isolation tape or gaskets to prevent paint damage. Have a latch mechanism that includes a paddle handle on inside and a large scale D type handle on the exterior. The door latch shall be a double catch two-point safety slam latch recessed inside the double panel door with strike plate mounted top and bottom of door frame. Latch system must meet all CMVSS specifications. Have an interior access panel or be made in two pieces with an overlap to allow access to permit repair of latch assembly. Use isolation tape or gasket between all door hardware and body. Have a retention device to prevent any doors from being opened beyond the maximum range. Have mechanism to hold door in open position. Have one (1) 18" wide by 22" vertical window that is capable of being opened mounted in the upper portion of the door. Window shall be tinted automotive type safety glass and equipped with removable black-out covers. Have two (2) handrails 1-1/4" diameter, one (1) vertical on exterior of body on door handle side, and one (1) on inside of door. The interior handrail shall be angled for optimum use when entering or exiting the body. Handrails to have knurled non-slip finish. Have pull/fold/flip out stairs (as required - to be reviewed at pre-build meeting). External stairs are preferred. Stairs must be NFPA compliant non-slip tread-plate. <p><u>State:</u></p> <ol style="list-style-type: none"> Compliance. Door dimensions. Door thickness. Interior door materials. | |

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| <i>C. Doors</i> | Bidders to indicate compliance or deviations with specifications below |
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| <ul style="list-style-type: none">5. Hinge style and make and model if applicable.6. Retention device design.7. Locking mechanism.8. Design of open door stay mechanism.9. Exterior handrail material, dimensions, and part number if applicable.10. Interior handrail material, dimensions and part number if applicable.11. Stair design details. | |

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| <i>D. Slideout</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>1. Slideout</p> <p>The body shall have one electrically operated 135" (120" interior usable space) interior width flat floor slideout on the curb side of the body. RV type slide outs are not acceptable. The slideout:</p> <ul style="list-style-type: none"> a) Shall extend approximately 31" as measured from the outside of the body. b) Shall have one (1) fixed window on each end of the slideout. c) Shall have an interior height of approximately 10" less than the interior height of the body walkway. d) Must be a flat floor design. e) Must be completely sealed from water ingress. f) Shall utilize a hydraulic system to operate the slide out. System must be smooth operating. g) Shall have an easily operated manual override system to allow manual operation in the event of drive mechanism failure. h) Shall be framed with 2" x 2" x 1/4" 6061-T6 alloy aluminium. i) Shall have all electrical wiring installed in the slide out wall through a boxed type conduit at the lower corner of the system. Wiring shall be enclosed in a flexible, moisture resistant, reinforced conduit, with proper seal tight connectors and hardware. j) Shall have an access panel to provide for inspection of all wiring and the gear and rack mechanism. k) Shall have full width padded foam cushion head bumpers installed along the top edge of the slideout. Bumpers shall be covered with grey vinyl. l) Shall be equipped with grounding microswitches that are tied into the driver alert system. The switches should short to ground when the slides are extended. When activated the ground signal will illuminate a warning light and alarm on the vehicle dash. <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Door thickness. 3. Interior door materials. 4. Hinge style and make and model if applicable. 5. Retention device design. 6. Design of open door locking mechanism. 7. Exterior handrail material, dimensions, and part number if applicable. 8. Interior handrail material, dimensions and part number if applicable. 9. Stair design details. | |

| <i>E. External Equipment</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>1. <u>Roof Access Ladder</u></p> <p>The top of the body shall be accessible from the ground by a folding ladder. The ladder design will have a main ladder section and a folding lower step section for better angle of departure. Ladder shall store vertically in the folded position, and shall be located on the rear curb side. Ladder shall be wired to the door ajar warning light in cab to warn the driver that the ladder is in the down position. There shall be one (1) 1-1/4" diameter handrail mounted on top of body to assist with roof access. Handrails to have knurled non-slip finish.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Ladder material and design. 3. Mounting hardware. | |
| <p>2. <u>Curb Side Awning</u></p> <p>The curb side will have one (1) full length power awning. Awning features shall include:</p> <ol style="list-style-type: none"> a) No vertical supports. b) Completely sealed motor. c) Black case colour to match body. d) Dark colour fabric. e) Slightly lower mounting at the front to assist with drainage. f) A warning system that alerts the driver when the awning is not in the stowed position. g) Automatic open and close switch. h) Manual override. i) Approximately 10' maximum extension. j) Controls located inside the exterior door leading to the Command Room. <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Make, model. 3. Case and fabric colours. 4. Extended dimensions. 5. Control location. | |
| <p>3. <u>Rear Awning</u></p> <p>The rear will have one (1) full length power awning. Awning features shall include:</p> | |

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| <i>E. External Equipment</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <p>k) No vertical supports. l) Completely sealed motor. m) Black case colour to match body. n) Dark colour fabric. o) Slightly lower mounting at the front to assist with drainage. p) A warning system that alerts the driver when the awning is not in the stowed position. q) Automatic open and close switch. r) Manual override. s) Approximately 10' maximum extension. t) Controls located inside the exterior door leading to the Negotiator Room.</p> <p><u>State:</u></p> <p>6. Compliance. 7. Make, model. 8. Case and fabric colours. 9. Extended dimensions. 10. Control location.</p> | |

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| <i>F. External Compartments</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>1. <u>Compartment Construction</u></p> <p>All external compartments shall have:</p> <ul style="list-style-type: none"> a) All aluminium construction. b) Sweep out style floors. c) Sealing to body interior. d) Venting to body exterior where designated. e) Removable rubber matting on the compartment floor and any shelves. f) A minimum ¾" diameter drain hole in each compartment. Install a removable rubber plug in each drain hole. g) A flush mounted, horizontally hinged compartment door fabricated using smooth 1/8" aluminum on the exterior, painted job colour. Interior of door can be unpainted. h) A device to hold the compartment door in the open position. i) Stainless steel hinges with isolation tape or gaskets between hardware and aluminium. j) Stainless steel D ring locking handle. k) Two point (top and bottom) rotary slam double catch latch system, recessed inside the door. l) Maximum compartment depth. m) Door openings fitted on all sides with closed cell automotive type rubber molding to provide a seals around door. n) A monitoring system to detect when doors are ajar. o) Drip rails installed above all compartment door openings. Drip rails shall be completely removable for easy replacement if necessary. <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Rubber matting style. 3. Door design. 4. Describe device to hold door open. 5. Mounting hardware make and model. 6. Handle make and model. | |
| <p>2. <u>Curb Side - Ahead of Rear Wheels, In Slideout C1</u></p> <p>There shall be one (1) compartment located ahead of the rear wheels, in slideout C1. The interior of this compartment shall be of sufficient size to house a 30" external monitor. Compartment door shall be double hinged to allow the top door to fold up and the bottom door to fold down, permitting users to place small objects on it. The door width and height shall be maximized to</p> | |

REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
AND COMPLIANCE MATRIX

| <i>F. External Compartments</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <p>ensure entire screen can be seen and to allow for access to rear. Compartment to accommodate the components and layout described below.</p> <p>Compartment Components and Layout</p> <ol style="list-style-type: none"> Wall mounted monitor. LED light to assist with monitor viewing. <p><u>State:</u></p> <ol style="list-style-type: none"> Compliance. Compartment interior dimensions. Compartment door dimensions. | |
| <p>3. <u>Curb Side - Front, Below Slideout C2</u></p> <p>There shall be one (1) compartment located curb side at the front of the body, behind the cab, below the slide out C2. The interior of the compartment shall be approximately 64" wide and height maximized below slide out. Compartment door width and height shall be maximized. Compartment to accommodate the components and layout described below.</p> <p>Compartment Components and Layout</p> <ol style="list-style-type: none"> Wall mounted 120V/240V electrical panel. Panel shall be mounted to one side, to maximize remaining compartment volume. Venting as required to ensure the safe operation of the electrical panel. <p><u>State:</u></p> <ol style="list-style-type: none"> Compliance. Compartment interior dimensions. Compartment door dimensions. Electrical panel mounting location and dimensions. Venting requirements and location. | |
| <p>4. <u>Curb Side - Ahead of Rear Wheels, Below Slideout C3</u></p> <p>There shall be one (1) compartment located curb side ahead of the rear wheels, below the slide out C3. The interior of the compartment shall be approximately 64" wide and height maximized below slide out. Compartment door width and height shall be maximized. Compartment to accommodate the components and layout described below.</p> <p>Compartment Components and Layout</p> <ol style="list-style-type: none"> Vertically mounted aluminium shelf-trac for later component installation. | |

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| <i>F. External Compartments</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Compartment interior dimensions. 3. Compartment door dimensions. | |
| <p>5. <u>Curb Side - Behind Rear Wheels, Below Floor C4</u></p> <p>There shall be one (1) compartment located curb side, behind the rear wheels C4. The interior dimensions of this compartment shall be maximized. Compartment door width and height shall be maximized. Compartment to accommodate the components and layout described below.</p> <p>Compartment Components and Layout</p> <ol style="list-style-type: none"> a) Vertically mounted aluminium shelf-trac for later component installation. <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Compartment interior dimensions. 3. Compartment door dimensions. | |
| <p><u>Curb Side - Ahead of Rear Wheels, In Slideout C5</u></p> <p>There shall be one (1) compartment located curb side, ahead of the rear wheels. The interior dimensions of this compartment shall be maximized. Compartment door width and height shall be maximized. Compartment to accommodate the components and layout described below.</p> <p>Compartment Components and Layout</p> <ol style="list-style-type: none"> a) Supply and installation of CVIP Type III panel to allow the connection of a CINT Commander Throw Phone to the vehicle phone network. <p><u>State:</u></p> <ol style="list-style-type: none"> 4. Compliance. 5. Compartment interior dimensions. 6. Compartment door dimensions. | |
| <p>6. <u>Street Side - Front, Below Floor S1</u></p> <p>There shall be one (1) compartment located street side at the front of the body, below the floor S1. The interior of</p> | |

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| <i>F. External Compartments</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <p>the compartment shall be approximately 64" wide and height maximized below floor. Compartment door width and height shall be maximized. Compartment to accommodate the components and layout described below.</p> <p>Compartment Components and Layout</p> <ul style="list-style-type: none"> a) 12V electrical panel. b) Specified battery charger and inverter. Battery charger and inverter to be mounted to compartment wall, and should not interfere with slide out. c) Specified auxiliary batteries and chassis batteries if possible. Final mounting of chassis batteries to be determined at pre-build meeting. Batteries to be securely stored on full width slide-out welded compartment tray utilizing a heavy duty roll-out glider mechanism and a divider to separate batteries from charger and inverter. A device shall be installed to fix tray at either "in" position or fully extended. d) Venting as required to ensure the safe operation of the batteries, charger, and electrical panel. <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Compartment interior dimensions. 3. Compartment door dimensions. 4. Glider mechanism. 5. Venting requirements and location. | |
| <p>7. <u>Street Side - Ahead of Rear Wheel, Below Floor S2</u></p> <p>There shall be one (1) compartment located street side at ahead of the rear wheel, below the floor S2. The interior of the compartment shall be approximately 64" wide to accommodate the generator and height maximized below floor. Compartment door width and height shall be maximized. Compartment to accommodate the components and layout described below.</p> <p>Compartment Components and Layout</p> <ul style="list-style-type: none"> a) Generator. b) Venting as required to ensure the safe operation of the generator. <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Compartment interior dimensions. 3. Compartment door dimensions. 4. Venting requirements and location. | |

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| <i>F. External Compartments</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>8. <u>Street Side - Behind Rear Wheels, Below Floor S3</u></p> <p>There shall be one (1) compartment located street side, behind the rear wheels, below the floor S3. The interior dimensions of this compartment shall be maximized below interior floor. Compartment door width and height shall be maximized. Compartment to accommodate the components and layout described below.</p> <p>Compartment Components and Layout</p> <ul style="list-style-type: none">a) Tent.b) Six (6) folding chairs <p><u>State:</u></p> <ul style="list-style-type: none">1. Compliance.2. Compartment interior dimensions.3. Compartment door dimensions. | |

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| <i>G. Vehicle Interior - General</i> | Bidders to indicate compliance or deviations with specifications below |
|--|--|
| <p>1. <u>Cabinet and Workstation Construction</u></p> <p>Cabinetry, including doors, shelves, workstations, and drawers shall be constructed as follows (unless specified):</p> <ul style="list-style-type: none"> a) Using aluminum. Thickness specifications to follow. b) Having no sharp edges. Rolled lips preferred on all exposed edges. Radius preferred on all corners. c) Be powder coated with a hammer tone powder coat paint finish in a dark grey colour (unless specified). d) Height of lower cabinets and work stations shall be approximately 30" from the floor and minimum 24" deep unless specified. Front edges of all lower work surfaces shall be reinforced with 2" x 2" tubing to support a person sitting on the edge of the work surface. Tubing shall be concealed by a 2" downward lip from the work surface. e) Lower cabinets shall have one (1) vertically adjustable shelf each cabinet. <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Edge finishing method. 3. Height of lower cabinetry. 4. Powder coating manufacturer and colour code. | |
| <p>2. <u>Cabinet Doors</u></p> <p>Cabinet doors shall:</p> <ul style="list-style-type: none"> a) Be formed from 1/8" aluminum. b) Be barn style unless specified. c) Be equipped with a positive locking latch to keep the doors securely shut. Latch size should be minimal. This will maintain maximal writing surface on doors that have dry erase writing finish. d) Be equipped with a rubber or foam gasket to prevent excessive noise or rattling while the vehicle is in motion. <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Latch/locking mechanism. | |
| <p>3. <u>Cabinet Shelves</u></p> <p>Cabinet shelves shall (unless otherwise specified):</p> | |

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| <i>G. Vehicle Interior - General</i> | Bidders to indicate compliance or deviations with specifications below |
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| <ul style="list-style-type: none">a) Be formed from 1/8" aluminum.b) Have .5" rolled bottom lip to prevent items from rolling off.c) Be provided with rubber matting.d) Be height adjustable if not part of outside cabinet structure. <p><u>State:</u></p> <ul style="list-style-type: none">1. Compliance.2. Latch/locking mechanism. | |
| <p>4. <u>Cabinet Drawers</u></p> <p>Cabinet drawers shall (unless otherwise specified):</p> <ul style="list-style-type: none">a) Be formed from 1/8" aluminum.b) Be provided with rubber matting.c) Be equipped with a positive locking latch to keep the drawer securely shut. Latch size should be minimal.d) Be equipped with a rubber or foam gasket to prevent excessive noise or rattling while the vehicle is in motion.e) Have full extension heavy duty metal slides. <p><u>State:</u></p> <ul style="list-style-type: none">1. Compliance.2. Latch/locking mechanism. | |

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| <i>H. Command Room</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <p>1. <u>Dimensions</u></p> <p>The Command Room shall be approximately 177" in length and shall have the same internal width and height measurements as the Negotiator Room.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Room dimensions. | |
| <p>2. <u>Slide-Out Upper Cabinetry</u></p> <p>There shall be three (3) equally sized overhead cabinets mounted in the interior of the slide out. Cabinet width should be maximized across the slideout.</p> <p>Cabinetry shall:</p> <ol style="list-style-type: none"> a) Be fabricated using 1/8" aluminum. b) Have no sharp edges. Rolled lips on exposed edges preferred. c) Have minimum 12" internal depth. d) Be located a minimum of 24" above any work surface. e) Have flip up style doors. f) Have a high gloss, dry erase writing surface on exterior of cabinet door. g) Have under-mounted radio/communication consoles to provide mounting areas for the radios specified., constructed using 1/8" aluminum with the same finishing as the upper cabinetry. The front of the cabinet shall have standard bolt on radio trim mounting plates to trim radios provided. A hinged 3/16" aluminum drop down access cover shall be provided on the bottom to access equipment mounting and wiring with ¼ turn knobs to secure cover closed. Two (2) 12 volt cooling fans and 12 volt power and ground provisions shall be provided for proper installation and ventilation of radio equipment. <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. | |
| <p>3. <u>Curb Side Slide-Out Full Width Desk</u></p> <p>The slide-out shall have a full width desk that is 24" deep and located 30" from the floor. Seating positions from front to rear of slide out are 1, 2, and 3.</p> <p>Full width desk shall:</p> | |

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| <i>H. Command Room</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <ul style="list-style-type: none"> a) Be fabricated using 2" x 2" aluminum tube frame and 3/16" aluminum sheet for the top surface. b) Have no sharp edges. Rolled lips preferred on all exposed edges. Radius preferred on all corners. c) Be powder coated with a hammer tone powder coat paint finish in a dark grey colour (unless specified). d) Front edge of work surface must have 2" x 2" tubing to support a person sitting on the edge of the work surface. Tubing shall be concealed by a 2" downward lip from the work surface. e) Have a 2-1/2" diameter hole with plastic edge grommet at each workstation location for wiring of future equipment. f) Have small d-rings or equivalent (mounted beneath work surface in an unobtrusive location) and bungee cords for securing chairs while unit is in transit. <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>4. <u>Desktop Component Console</u></p> <p>The full width desk shall have a console at the rear of the desk for optional component mounting. The console shall be fabricated from 1/8" aluminum approximately 6" high x 6" deep with a sloping component mounting face.</p> <p>The console shall:</p> <ul style="list-style-type: none"> a) Be fabricated 1/8" aluminum. b) Be approximately 9" high x 6" deep. c) Have no sharp edges. Rolled lips preferred on all exposed edges. Radius preferred on all corners. d) Be powder coated with a hammer tone powder coat paint finish in a dark grey colour (unless specified). e) Have a hinged sloping component mounting face to allow access to the components. This hinged cover shall be held closed with a latch in each corner. f) Have the following componentry installed in the front face of the console at each seating position, unless specified: <ul style="list-style-type: none"> i) Three (3) circuit labelled RJ-45 plugs with shielded CAT6 cabling that terminates at the equipment rack mount patch panel with 12' of slack per cable. A cable certification report confirming that all network wiring complies with CAT6 specifications to be included. ii) Two (2) 120 VAC, 20 amp, duplex straight blade receptacle (NEMA 5-20R) circuit labelled outlets iii) One (1) RG6 cable for each monitor, circuit labelled, wired to audio/visual controller iv) Two (2) 22/2C audio cables for each monitor, | |

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| <i>H. Command Room</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <p>circuit labelled, wired to audio/visual controller</p> <ul style="list-style-type: none"> v) One (1) USB outlet and cable, circuit labelled, wired to Smart Board, at seating position 1 only (not per workstation). vi) Two (2) two-gang 12 VDC outlet equally spaced along console (not per workstation) vii) One (1) phone type connection (not per workstation) allowing direct hard line communication between the Command and Negotiator Room. There should be a conventional telephone type handset that chimes to indicate a call, but can also be able to operate silently with a flashing light to indicate a call. <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. | |
| <p>5. <u>Desktop Computers</u></p> <p>Vancouver Police Department to supply three (3) desktop computers for use at each of the three (3) workstations. Possible model is the Lenovo M91 USFF. Prefer unobtrusive, off the floor mounting location. Mounting method must protect desktop from day to day damage and be properly vented to prevent over-heating.</p> <p>Desktop computer and associated monitors shall be fully operational, including all miscellaneous coax cable, 120 volt AC wiring, and cable connections.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Mounting location. 3. Mounting method. | |
| <p>6. <u>Computer Monitors</u></p> <p>Vancouver Police Department to supply three (3) desktop monitors, one (1) for each desktop computer. Possible model is the View Sonic VG2436wm - LED. Monitors to be wall mounted within the slide out on adjustable wall mounts that are cable of being locked in place when vehicle is in motion. To meet VESA mounting standards. Mounting method must protect desktop from day to day damage and be properly vented to prevent over-heating.</p> <p>Desktop computer and associated monitors shall be fully operational, including all miscellaneous coax cable, 120 volt AC wiring, and cable connections.</p> | |

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| <i>H. Command Room</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Mounting device make and model. 3. Mounting method. | |
| <p>7. <u>Street Side Lower Cabinetry</u></p> <p>Lower cabinetry shall run along the street side wall of the Command Room from the equipment rack to the front wall. The overall height of the cabinetry shall be approximately 30" and the cabinet depth shall be approximately 24".</p> <p>Cabinetry shall:</p> <ol style="list-style-type: none"> a) Be fabricated using 2" x 2" aluminum tube frame and 3/16" aluminum sheet for the top surface. b) Have no sharp edges. Rolled lips preferred on all exposed edges. Radius preferred on all corners. c) Be powder coated with a hammer tone powder coat paint finish in a dark grey colour (unless specified). d) Front edge of cabinetry must have 2" x 2" tubing to support a person sitting on the edge of the work surface. Tubing shall be concealed by a 2" downward lip from the top work surface. <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>8. <u>Street Side Upper Sliding Whiteboard Surfaces</u></p> <p>Wheeled tracks shall run along the top surface of the street side lower cabinetry and the interior roof to support three (3) magnetic white boards that will be able to be positioned anywhere along the street side wall of the Command Room from the equipment rack to the front wall. Three (3) additional wall mounted magnetic white boards will be mounted behind the tracked boards.</p> <p>Each whiteboards shall:</p> <ol style="list-style-type: none"> a) Have a high gloss dry erase surface. b) Have height maximized in the available space above the lower cabinetry. c) Have no sharp edges. d) Be able to lock in a stored position if tracked. e) Use a commercial grade tracking system, if tracked. f) Have two (2) full length magnets supplied to allow paperwork to be positioned on the whiteboard. | |

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| <i>H. Command Room</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Magnetic whiteboard dimensions. | |
| <p>9. <u>Street Side Roof Mounted Transparency</u></p> <p>A bracket shall be mounted on the roof of the vehicle next beside the equipment rack that holds and dispenses a roll transparency film.</p> <p>The bracket shall:</p> <ol style="list-style-type: none"> a) Have approximately the same width as one of the white boards. b) Come filled with a roll of transparency film that can be used to write on and can be held with magnets on whiteboard surface. c) Be fabricated with no sharp edges. d) Have a mechanism to cut the transparency at a desired length. e) Have a mechanism to lock the transparency roll in position, and prevent unwanted unrolling. <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Transparency film rolls dimensions and sheet thickness. | |
| <p>10. <u>Conference Table</u></p> <p>One (1) 36" x 60" conference table is required in the forward area of the Command Room.</p> <p>Table shall:</p> <ol style="list-style-type: none"> a) Have a central panel with two (2) fold down sides to minimize the table area when not required. b) Be able to be securely stored with the sides folded down. c) Be easily set up with either the street side or curb side panels in the horizontal position. Must be lockable in the horizontal position. d) Be fabricated using aluminium powder coated with a hammer tone powder coat paint finish in a dark grey colour. e) Be capable of supporting a person sitting on the table edge in the fully raised position. f) Have a central recessed centre enclosure. The enclosure shall be designed to include the following components: | |

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| <i>H. Command Room</i> | Bidders to indicate compliance or deviations with specifications below |
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| <ul style="list-style-type: none"> i. Two (2) circuit labelled RJ-45 plugs with shielded CAT6 cabling that terminates at the equipment rack mount patch panel with 12' of slack per cable. A cable certification report confirming that all network wiring complies with CAT6 specifications to be included. ii. One (1) 120 VAC, 20 amp, duplex straight blade receptacle (NEMA 5-20R) circuit labelled outlets. iii. One (1) VGA outlet and cable, circuit labelled, wired to Smart Board VGA outlet 2. iv. One (1) RG6 cable, circuit labelled, wired to audio/visual controller v. Two (2) 22/2C audio cables, circuit labelled, wired to audio/visual controller <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Dimensions. 3. Describe table design. | |
| <p>11. Office Chairs</p> <p>There shall be three (3) high quality, high back, fully adjustable, roll type office chairs for the Command Room provided with the vehicle upon delivery. Prefer chairs to be on the smaller side to minimize floor space occupied. Chairs shall be secured for transportation with snap type straps that attach to D rings mounted beneath the three (3) workstations in the curb side slideout.</p> <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Office chair make and model. 3. Adjustability features. 4. Folding chair make and model. 5. Proposed storage location of folding chairs. | |

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| 1. <i>Negotiator Room</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>1. <u>Dimensions</u></p> <p>The Negotiators Room shall be approximately 80" in length and shall have the same internal width and height measurements as the Command Room.</p> <p><u>State:</u></p> <p>3. Compliance. 4. Room dimensions.</p> | |
| <p>2. <u>Insulation</u></p> <p>The Negotiators Room shall have extra noise insulation installed in the walls, floor, doors, etc.</p> <p><u>State:</u></p> <p>1. Compliance. 2. Details of additional noise insulation.</p> | |
| <p>3. <u>Pocket Door</u></p> <p>A pocket door shall be installed on a heavy duty track (on the street side of the body) to permit access to the Negotiators Room from the Command Room. Door shall have a stainless steel latching handle with no lock mounted on both sides of the door. Door shall have noise reduction material added to reduce ambient noise transfer between Command and Negotiator rooms.</p> <p><u>State:</u></p> <p>1. Compliance. 2. Noise reduction materials.</p> | |
| <p>4. <u>Curb Side & Street Side Full Width Desk</u></p> <p>Both the curb side and street sides of the Negotiator Room shall have full width desks that are 24" deep and located 30" from the floor.</p> <p>Each full width desk shall:</p> <p>a) Be fabricated using 2" x 2" aluminum tube frame and 3/16" aluminum sheet for the top surface. b) Have no sharp edges. Rolled lips preferred on all exposed edges. Radius preferred on all corners. c) Be powder coated with a hammer tone powder coat</p> | |

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|---|---|
| <p>1. <i>Negotiator Room</i></p> | <p>Bidders to indicate compliance or deviations with specifications below</p> |
| <p>paint finish in a dark grey colour (unless specified).</p> <p>d) Front edge of work surface must have 2" x 2" tubing to support a person sitting on the edge of the work surface. Tubing shall be concealed by a 2" downward lip from the work surface.</p> <p>e) Have a 2-1/2" diameter hole with plastic edge grommet at each rear corner for wiring of future equipment.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>5. <u>Curb Side and Street Side Lower Drawer Units</u></p> <p>Lower cabinet drawer units shall be centred along each of the full width desks on curb side and street side of the Negotiator Room. The drawer unit height shall be maximized under the full width desks. Bottom drawer of each unit shall be able to store legal size hanging folders.</p> <p>Drawer units shall:</p> <p>a) Be fabricated using 1/8" aluminum with a 3/16" aluminum sheet for the top surface.</p> <p>b) Have no sharp edges. Rolled lips preferred on all exposed edges. Radius preferred on all corners.</p> <p>c) Be powder coated with a hammer tone powder coat paint finish in a dark grey colour (unless specified).</p> <p>d) Front edge of cabinetry must have 2" x 2" tubing to support a person sitting on the edge of the work surface. Tubing shall be concealed by a 2" downward lip from the top work surface.</p> <p>e) Be provided with rubber matting.</p> <p>f) Be equipped with a positive locking latch to keep the drawer securely shut. Latch size should be minimal.</p> <p>g) Be equipped with a rubber or foam gasket to prevent excessive noise or rattling while the vehicle is in motion.</p> <p>h) Have full extension heavy duty metal slides.</p> <p><u>State:</u></p> <p>1. Compliance.</p> <p>2. Drawer dimensions.</p> <p>3. Locking mechanism.</p> | |
| <p>6. <u>Desktop Component Console</u></p> <p>Each full width desk shall have a console at the rear of the desk for optional component mounting. The console shall be fabricated from 1/8" aluminum approximately 6" high x 6" deep with a sloping component mounting face.</p> | |

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| 1. <i>Negotiator Room</i> | Bidders to indicate compliance or deviations with specifications below |
|--|--|
| <p>The console shall:</p> <ul style="list-style-type: none"> a) Be fabricated 1/8" aluminum. b) Be approximately 9" high x 6" deep. c) Have no sharp edges. Rolled lips preferred on all exposed edges. Radius preferred on all corners. d) Be powder coated with a hammer tone powder coat paint finish in a dark grey colour (unless specified). e) Have a hinged sloping component mounting face to allow access to the components. This hinged cover shall be held closed with a latch in each corner. f) Have the following componentry installed in the front face of the console at each seating position, unless specified: <ul style="list-style-type: none"> i) Three (3) circuit labelled RJ-45 plugs with shielded CAT6 cabling that terminates at the equipment rack mount patch panel with 12' of slack per cable. A cable certification report confirming that all network wiring complies with CAT6 specifications to be included. ii) Two (2) 120 VAC, 20 amp, duplex straight blade receptacle (NEMA 5-20R) circuit labelled outlets iii) One (1) RG6 cable for each monitor, circuit labelled, wired to audio/visual controller iv) Two (2) 22/2C audio cables for each monitor, circuit labelled, wired to audio/visual controller v) One (1) two-gang 12 VDC per console (not per workstation) vi) One (1) phone type connection (not per workstation) allowing direct hard line communication between the Command Room and Negotiator Room. There should be a conventional telephone type handset that chimes to indicate a call, but can also be able to operate silently with a flashing light to indicate a call. <p><u>State:</u></p> <p>1. Compliance.</p> | |
| <p>7. <u>Desktop Computers</u></p> <p>Vancouver Police Department to supply four (4) desktop computers for use at each of the four (4) Negotiator Room workstations. Possible model is the Lenovo M91 USFF. Prefer unobtrusive, off the floor mounting location. Mounting method must protect desktop from day to day damage and be properly vented to prevent over-heating.</p> | |

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| 1. <i>Negotiator Room</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>Desktop computer and associated monitors shall be fully operational, including all miscellaneous coax cable, 120 volt AC wiring, and cable connections.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Mounting location. 3. Mounting method. | |
| <p>8. <u>Computer Monitors</u></p> <p>Vancouver Police Department to supply four (4) desktop monitors, one (1) for each desktop computer in the Negotiator Room. Possible model is the View Sonic VG2436wm - LED. Monitors to be wall mounted within the slide out on adjustable wall mounts that are cable of being locked in place when vehicle is in motion. To meet VESA mounting standards. Mounting method must protect desktop from day to day damage and be properly vented to prevent over-heating.</p> <p>Desktop computer and associated monitors shall be fully operational, including all miscellaneous coax cable, 120 volt AC wiring, and cable connections.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 4. Compliance. 5. Mounting device make and model. 6. Mounting method. | |
| <p>9. <u>Office Chairs</u></p> <p>There shall be four (4) high quality, high back, fully adjustable, roll type office chairs for the Negotiator Room provided with the vehicle upon delivery. Prefer chairs to be on the smaller side to minimize floor space occupied. Chairs shall be secured for transportation with snap type straps.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Chair make and model. 3. Adjustability features. | |

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| <i>J. Internal Fire Suppression System</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>1. <u>Personnel Compartment</u></p> <p>One (1) manual, 5-lb ABC type vehicle Fire Extinguisher with bracket per DOT requirements shall be mounted in the Command Room.</p> <p><u>State:</u> Compliance.</p> | |

REQUIREMENTS
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| K. HVAC Systems | Bidders to indicate compliance or deviations with specifications below |
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| <p>1. <u>Roof Mounted Heating and Air Conditioning Units</u></p> <p>Low profile roof mounted body heating and air-conditioning climate control system shall be installed that:</p> <ul style="list-style-type: none"> a) Is capable of maintaining the interior body air temperature comfortable (approximately 17-22 deg C) for outside ambient temperatures ranging from -30 to +40 deg C. b) Is capable of dealing with local high humidity ambient weather conditions. c) Has individual temperature control for each room in the body. d) Uses a high efficiency make and model, with minimal noise production. e) Has all fresh air intakes located to prevent exhaust gases from entering the apparatus body. f) Has integral evaporator/condensers with built in heating elements. g) Is designed for vehicle mounting. h) Maintains OEM internal heating and air-conditioning climate control system for the chassis cab compartment. <p><u>State:</u></p> <ul style="list-style-type: none"> 1. If OEM system maintained for front cab compartment. 2. Make and model of non-OEM system. 3. Quantity of units installed. 4. Type of blower control. 5. System air movement and capacity in CFM. 6. Heater/defroster fan type and speed control. 7. If OEM system is suitable and available for rear personnel compartment. 8. Make, model, and capacity of system for rear personnel compartment. 9. Per unit power requirements. 10. Unit height. | |
| <p>2. <u>Base Board Heaters</u></p> <p>Base board heaters to be supplied and installed in the Command and Negotiator rooms. These systems to be wired to the 120 V system and be controlled using the same controls as the roof mounted heating and air conditioning system. Heaters should be located to minimize impacts to floor space. Heaters to be wired so that they can be operated when plugged into shore power.</p> <p><u>State:</u></p> | |

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| <i>K. HVAC Systems</i> | Bidders to indicate compliance or deviations with specifications below |
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| <ol style="list-style-type: none">1. Compliance.2. Make and model of heaters.3. Mounting location. | |
| <p>3. <u>Fresh Air Ventilation</u></p> <p>Two (2) roof-mounted fresh air vents (Fantastic Fan or equivalent) to be provided along the central axis of the vehicle in the Command and Negotiator rooms. Vents should be multi-speed and have remote wall controls located in the respective mounting room next to other HVAC controls.</p> <p><u>State:</u></p> <ol style="list-style-type: none">1. Make and model of fans.2. Multi-speed and reversible.3. Mounting location. | |

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| <i>L. Electrical - General</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>1. <u>Compliance</u></p> <p>All electrical must be certified CSA compliant and meet all current applicable Canadian and Provincial electrical regulations currently in effect.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>2. <u>Wiring</u></p> <p>All electrical circuit feeder wiring supplied and installed by the fire apparatus manufacturer shall meet the requirements of NFPA Chapter 13.</p> <p>The circuit feeder wire shall be stranded copper or copper alloy conductors of a gauge rated to carry 125% of the maximum current for which the circuit is protected. Voltage drops in all wiring from the power source to the using device shall not exceed 10%. The use of star washers for circuit ground connections is not permitted. All circuits shall otherwise be wired in conformance with SAE J1292, Automobile, Truck, Truck-Tractor, Trailer, and Motor Coach Wiring</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>3. <u>Cabling and Connections</u></p> <p>Supply and installation of electrical cabling and connections as follows:</p> <ul style="list-style-type: none"> a) All connections are to be made inside junction boxes. Sealed splices shall be located within 12" of lamps, switches, or equipment. There shall not be any hidden connections in the body electrical system. b) All cables are to be provided with strain relief near each end, and are to be supported at intermediate points using bolt on vinyl coated wire clamps. Clamps are to be located at a spacing of 24" or less along the length. c) All terminal connections are to be made using tongue terminals unless otherwise specified. d) All ground wires to return to suitable junction box. e) All 12 VDC junction boxes to be Truck-Lite 50401 or equal, installed in an accessible location. All body marker, clearance, signal/brake, and backup lights shall be wired to the junction box. The junction box | |

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| <i>L. Electrical - General</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>shall be connected to the chassis lighting circuits.</p> <p>f) Where cabling passes through sheet metal, grommets shall be used to protect wire and wire looms.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>4. <u>Electrical Routing and Protection</u></p> <p>All electrical is to be neatly routed and is to be protected from impact, direct road splash and abrasion. Wiring cables to be of sufficient length to be neatly routed in areas that are not subject to damage.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>5. <u>Chassis Integration</u></p> <p>All electrical integration with chassis electrical system must be done in strict accordance with the manufacturer's recommended and approved methods. Correction of any electrical problems related to improper integration shall be at the Supplier's expense.</p> <p><u>State:</u></p> <p>Compliance.</p> | |

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| <i>M. Low Voltage Electrical System</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>1. <u>General</u></p> <p>Any low voltage electrical systems or warning devices installed on the vehicle shall be appropriate for the mounting location and intended electrical load. Where wire passes through sheet metal, grommets shall be used to protect wire and wire looms. Electrical connections shall be with double crimp water-tight heat shrink connectors. All 12 VDC wiring running from front to back of vehicle body shall be run in full length electrical wiring raceway down each side of body.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>2. <u>Wiring</u></p> <p>All electrical circuit feeder wiring supplied and installed by the fire apparatus manufacturer shall meet the requirements of NFPA Chapter 13.</p> <p>The circuit feeder wire shall be stranded copper or copper alloy conductors of a gauge rated to carry 125% of the maximum current for which the circuit is protected. Voltage drops in all wiring from the power source to the using device shall not exceed 10%. The use of star washers for circuit ground connections is not permitted. All circuits shall otherwise be wired in conformance with SAE J1292, Automobile, Truck, Truck-Tractor, Trailer, and Motor Coach Wiring.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>3. <u>Wiring and Wiring Harness Construction</u></p> <p>All insulated wire and cable shall conform to SAE J1127 or SAE J1128. All wiring connections and terminations shall use a method that provides a positive mechanical and electrical connection. The wiring connections and terminations shall be installed in accordance with the device manufacturer's instructions. All ungrounded electrical terminals shall have protective covers or be in enclosures. Wire nut, insulation displacement, and insulation piercing connections shall not be used.</p> <p><u>State:</u></p> <p>Compliance.</p> | |

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| <i>M. Low Voltage Electrical System</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>4. <u>Receptacles</u></p> <p>All low voltage receptacles, or other than single phase, shall be marked to indicate such.</p> <p><u>State:</u> Compliance.</p> | |
| <p>5. <u>Power Supply</u></p> <p>A 12 V or greater electrical alternator shall be provided. The alternator shall have a minimum output at idle to meet the minimum continuous electrical load of the vehicle at 93 degrees Celsius ambient temperature within the engine compartment, and shall be provided with full automatic regulation.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Alternator size. | |
| <p>6. <u>Minimum Continuous Electrical Load</u></p> <p>The minimum continuous electrical load shall consist of the total amperage required to simultaneously operate the following in a stationary mode during emergency operations:</p> <ol style="list-style-type: none"> a) The propulsion engine and transmission b) All legally required clearance and marker lights, headlights, and other electrical devices except windshield wipers and four-way hazard flashers c) The lighting necessary to produce 2fc of illumination on all walking surfaces on the apparatus and on the ground at all egress points onto and off the apparatus, 5 fc of illumination on all control and instrument panels d) The minimum optical warning system, where the vehicle is blocking the right of way e) The continuous electrical current required to simultaneously operate any aerial devices, compressors, and hydraulic pumps f) The continuous electrical current required to simultaneously operate the communications and information technology equipment specified in the tender <p><u>State:</u></p> <p>Compliance.</p> | |

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| <i>M. Low Voltage Electrical System</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>7. <u>Low Voltage Over Current Protection</u></p> <p>Low voltage circuits shall be provided with properly rated low voltage over current protective devices. Such devices shall be readily accessible and protected against heat in excess of the over current device's design range, mechanical damage, and water spray. Circuit protection shall be accomplished by utilizing fuses, circuit breakers, fusible links, or solid state equivalent devices. If a mechanical type device is used it shall conform to one of the following SAE Standards: SAE J156, SAE J553, SAE J554, SAE J1888, SAE J2077.</p> <p>Switches, relays, terminals, and connectors shall have a direct current rating of 125% of maximum current for which the circuit is protected.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>8. <u>Warning System</u></p> <p>The condition of the low voltage electrical system shall be monitored by a warning system that provides both an audible and a visual signal to persons in the cab or body of an impending electrical system failure caused by excessive discharge of the battery set. The alarm shall sound if the system voltages at the battery or at the master load disconnect switch drops below 11.8 V for 12 V nominal systems, 23.6 V for 24 V nominal systems, or 35.4 V for 42 V nominal systems for more than 120 seconds.</p> <p>The charge status of the battery shall be determined either by direct measurement of the battery charge, or indirectly by monitoring the electrical system voltage.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>9. <u>Electromagnetic Interference Suppression</u></p> <p>Electromagnetic interference suppression shall be provided as required to satisfy the radiation limits specified in SAE J551/1.</p> <p><u>State:</u></p> <p>Compliance.</p> | |

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| <i>M. Low Voltage Electrical System</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>10. <u>Low Voltage - Testing</u></p> <p>The low voltage electrical system shall be tested and certified by the manufacturer. The certified test results shall be delivered with the completed vehicle. Tests shall be performed with the air temperature is between -18°C and 43°C.</p> <p>The following three (3) tests shall be performed in the order in which they appear below. Before each test, the batteries shall be fully charged until the voltage stabilizes at the voltage regulator set point and the lowest charge current is maintained for 10 minutes. Failure of any of these tests shall require a repeat of the sequence</p> <p>Test Sequence:</p> <p>a) Reserve Capacity Test</p> <ol style="list-style-type: none"> i) The engine shall be started and kept running until the engine and engine compartment temperatures are stabilized at normal operating temperatures and the battery system is fully charged. The engine shall then be shut off, and the minimum continuous electrical load shall be activated for 10 minutes. ii) All electrical loads shall then be turned off prior to attempting to restart the engine. The battery system shall then be capable of restarting the engine. Failure to restart the engine shall be considered a test failure of the battery system. <p>b) Alternator Performance Test</p> <ol style="list-style-type: none"> i) Test at idle - the minimum continuous electrical load shall be activated with the engine running at idle speed. The engine temperature shall be stabilized at normal operating temperature. The battery system shall be tested to detect the presence of battery discharge current. The detection of battery discharge current shall be considered a test failure. ii) Test at Full Load - the total continuous electrical load shall be activated with the engine running up to the engine manufacturer's governed speed. The test duration shall be a minimum of 2 hours. Activation of the load management system shall be permitted during this test. iii) An alarm sounded by excessive battery discharge as detected by the warning system required in XX, or a system voltage of less than 12.4 VDC for a 12 V nominal system, 24.8 VDC for a 24 V nominal system, or 37.2 VDC for a 42 V nominal system for more than 120 seconds shall be considered a test failure. <p>c) Low Voltage Alarm Test</p> | |

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| <p>i) The following test shall be started with the engine off and the battery voltage at or above 12 V for a 12V nominal system, 24 V for a 24 V nominal system, or 36 V for a 42 V nominal system.</p> <p>ii) With the engine shut off, the total continuous electrical load shall be activated and shall continue to be applied until the excessive battery discharge alarm activates. The battery voltage shall be measured at the battery terminals. The test shall be considered a failure if the alarm does not sound in less than 140 seconds after the voltage drops to 11.70 VDC for a 12 V nominal system, 23.4 VDC for a 24 V nominal system, or 35.1 VDC for a 42 V nominal system.</p> <p>iii) The battery system shall then be able to restart the engine. Failure to restart the engine shall be considered a test failure.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>11. <u>Low Voltage - Testing Documentation</u></p> <p>The manufacturer shall deliver the following with the apparatus:</p> <p>a) Documentation of the electrical system performance tests</p> <p>b) A written electrical load analysis, including the following:</p> <p>i) The nameplate rating of the alternator</p> <p>ii) The alternator rating</p> <p>iii) Each of the component loads specified that make up the minimum continuous electrical load</p> <p>iv) Additional electrical loads that, when added to the minimum continuous electrical load, determine the total continuous electrical load</p> <p>v) Each individual intermittent electrical load</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>12. <u>12 Volt Multiplex Control Centre</u></p> <p>The completed vehicle shall be equipped with a Weldon V-MUX multiplexed 12 volt electrical system that will provide complete diagnostic capability. The system shall have the capability of delivering multiple signals via a CAN bus, utilizing specifications set forth by SAE J1939. The</p> | |

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| <i>M. Low Voltage Electrical System</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>system shall be node based to maximize stability so that failure of one node does not affect the operation of the other nodes. The system shall use shielded twisted-pair wire for transmission of system function signals. The shielded wire shall provide protection against electromagnetic interference (EMI) and radio frequency interference (RFI) noise interruptions.</p> <p>The multiplex system shall be responsible for providing power management functions as well as load shedding. The warning light system shall be controlled by the multiplex system. The system shall be capable of displaying text and/or graphic messages on a display module. The system shall be based on solid state technology and shall include self-contained diagnostic indicators.</p> <p>System requirements are:</p> <p>a) Outputs:</p> <p>The outputs shall perform all of the following items without added modules to perform any of the tasks:</p> <ul style="list-style-type: none"> i) Load Shedding: The system shall have the capability to load shed any output with 8 levels. This means you can specify which outputs (barring NFPA restrictions) you would like load shed. Level 1 12.9V, Level 2 12.5 V, Level 3 12.1V, Level 4 11.7V, Level 5 11.3V, Level 6 10.9V, Level 7 10.5V, Level 8 10.1V. Unlike conventional load shedding devices you can assign a level to any or all outputs. ii) Load Sequencing: The system shall be able to sequence any output from 0 to 8 levels, with 0 being no delay, 1 being a 1 second delay, 2 being a 2 second delay and so on, to reduce the amount of voltage spikes and drops on vehicle, and limit damage to the charging system. iii) Output Device: The system shall have MOS-FET solid state output devices iv) Flashing Outputs: They system shall be able to flash any output in either A or B phase, and logic can be used to shut down needed outputs in park, or any one of several combined interlocks. The flash rate can be selected at 80, 160, or 200 FPM. This means any light can be specified with a multiplex truck with no need to add flashers. Flashing outputs can also be used to warn of problems. v) Pulse-Width Modulation: The modules shall have pulse-width modulation ability at some outputs, to allow for various devices to use pulse-width modulation, and reduce the need for additional | |

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| <p>pulse-width modulation modules.</p> <p>vi) Diagnostics: An output should be able to detect either a short or open circuit. The system should be able to report in “real time” a text based message that points the maintenance person to a specific output.</p> <p>b) Inputs:</p> <p>i) The inputs shall have the ability to switch by a ground or vbatt signal.</p> <p>ii) The inputs shall be filtered for noise suppression via hardware and software so that radio frequency or dirty power will not trick an input into changing its status.</p> <p>c) Auto Throttle:</p> <p>The multiplex system shall be able to perform automatic high idle via a network gateway or by using an existing output on a module to provide the proper signals to an OEM engine ECU. This task should be handled with existing inputs and outputs.</p> <p>d) Displays:</p> <p>One (1) Weldon V-MUX Vista IV shall be provided. The Vista IV shall have seven switches with custom legends and a wide temperature operating range. The four wires shall control all lighting and HVAC. The Vista IV shall have colour changes for button status. The display shall be pre-programmable (OEM Level). The auto climate control shall display temperature set point and outside temperatures. The Vista IV shall be ready for back-up camera installation, and have virtual switches, on-board diagnostics. The display shall be located in the cab centre console for control of all master and emergency lights.</p> <p>e) System Network:</p> <p>The multiplex system shall contain a peer to peer network where all modules are equal on the network. A master slave type network is not suitable for this type of unit.</p> <p>f) System Reliability</p> <p>The multiplex system shall be able to perform in extreme temperature conditions, from -40° to 85° C. The system shall be sealed against the environment, moisture, humidity, salt or fluids such as diesel fuel, motor oil or brake fluid. The enclosures shall be rugged to withstand being mounted in various</p> | |

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| <p>locations or compartments around the vehicle. The modules shall be protected from over voltage and reverse polarity.</p> <p>g) WELDON Certification</p> <p>A letter shall be provided with bid submittal that the Contractor has successfully completed the Weldon Training requirements for Level 1 of the V-MUX Certified Supplier Program and is authorized to design, build, and service V-MUX electrical systems.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>13. <u>Battery System</u></p> <p>The low voltage battery system shall:</p> <ul style="list-style-type: none"> a) Be heavy duty type with cables terminating in heat shrink loom. Heavy duty battery cables shall provide maximum power to the low voltage electrical system. b) Where required, have battery cables shielded from exhaust tubing and the muffler c) Use rubber grommets where battery cables enter the battery compartment. d) Use high-cycle batteries e) Be able to provide the minimum continuous electrical load for 10 minutes without discharging more than 50 percent of the reserve capacity and then restart the engine. f) Have a cold cranking amps (CCA) rating that meets or exceeds the minimum CCA recommendations off the engine manufacturer. g) Have the batteries mounted to prevent movement during vehicle operation and shall be protected against accumulations of road spray, snow, and road debris. h) Shall have the batteries located for easy accessibility, testing, and maintenance. i) Have a means provided for jump-starting the engine if the batteries are not accessible without lifting the cab of a tilt-cab chassis. j) Be ventilated to the exterior to prevent the build-up of heat and explosive fumes if the battery system is located in an enclosed battery compartment. k) Have a master load disconnect switch provided between the starter solenoid(s) and the remainder of the electrical loads on the apparatus. The starter solenoids shall be connected directly to the batteries. l) Have a low voltage system "on/off" switch and | |

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| <p>indicator light that is visible from the driver's position. Switch shall consist of a minimum 200 ampere, constant duty solenoid to feed from the positive side of the battery.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Battery location. 3. Battery make, model, and CCA. 4. Battery quantity. 5. Jump-start means. 6. Ventilation methods. 7. On/Off switch and indicator light provisions. | |
| <p>14. <u>Shore Power</u></p> <p>A 30 amp, 120 VAC shore power outlet located near generator door. Shore power to be wired to battery charger. Shore power connection must comply with the British Columbia electrical codes and standards.</p> <p>Shore power shall:</p> <ol style="list-style-type: none"> a) Include auto-eject feature to prevent driving of the vehicle when shore power is plugged in. b) Have the protective ground from the shoreline inlet bonded to the vehicle frame. <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Auto-eject feature. 3. Make and model of inlet. 4. Inlet location. 5. Compliance with British Columbia electrical codes and standards. | |
| <p>15. <u>Battery Charger</u></p> <p>80 Amp, 12 VDC auxiliary battery charger hard wired to shore power. Charger must meet or exceed the specification of a Newmar model PT-80 charger and have the following features:</p> <ol style="list-style-type: none"> a) Microprocessor controlled b) Multi-stage charging algorithms c) Settings for three stage charging - bulk, absorption, float d) Switch to select optimum charge/float levels for flooded gel, AGM, or lead-calcium batteries e) Low electrical interference with communication equipment | |

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| <p>f) Power factor corrected multi-stage charging g) Auto-ranging universal input voltage (90-265 VAC, 47-63 Hz) h) Compatible with a generator or other low-quality power sources i) Designed for charging multiple battery bank systems j) Temperature compensation charging k) Battery-equalization feature l) Ability to charge 'dead' batteries without overload m) Battery temperature sensor n) Remote charge indicator located next to shore power outlet.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Make and model of charger. 2. Make and model feature list compliance. 3. Charger mounting location. 4. Charge indicator location. | |
| <p>16. <u>Electrical Power Management System</u></p> <p>Electrical power management system shall monitor the vehicle's electrical system at all times when the engine is operating and when the vehicle is parked and connected to shore power. System will ensure that the optimal battery charge condition is maintained at all times.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>17. <u>DC Breaker Panels</u></p> <p>Auxiliary low voltage systems breaker panels shall be installed with CSA/UL listed magnetic/hydraulic circuit breakers with amber LED indicators as required.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Type of circuit breakers. 3. Location of circuit breaker panel(s). | |

| <i>M. Low Voltage Electrical System</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>18. <u>Body Interior Roof Mounted Lighting</u></p> <p>There shall be twelve (12) surface mount dual red and white LED lights with clear lens installed in the vehicle body, with eight (8) being installed in the Command Room and four (4) installed in the Negotiator Room. The fixtures shall be low profile LED lighting.</p> <p>These lights shall:</p> <ul style="list-style-type: none"> a) Be capable of operating under both 12 volt and 120 volt with a default to 12 volt power until 120 volt power is supplied to the vehicle. b) Be operated by a switch located at the entry doorway. <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Light make and model. 3. Light dimensions. | |
| <p>19. <u>Body Interior Task Lighting</u></p> <p>There shall be three (3) surface mounted low profile LED task lights with clear lenses installed in the Command Room. Lights to be installed in the slide out under the shelves, centred over each of the 3 workstations.</p> <p>These task lights shall:</p> <ul style="list-style-type: none"> a) Be capable of operating under both 12 volt and 120 volt with a default to 12 volt power until 120 volt power is supplied to the vehicle. b) Produce white light. c) Be operated by a switch located at the entry doorway. <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Light make and model. 3. Light dimensions. | |
| <p>20. <u>FMVSS/CMVSS Lighting Requirements</u></p> <p>All tail/brake lamps, turn signal lamps, clearance, license plate and marker lamps must be supplied and installed and be in compliance with FMVSS/CMVSS standards as set out by the Canadian Motor Vehicle Safety Regulations. All lighting fixtures preferred to be of the LED type except for the backup lamps. Flush mounted clearance identification lamps are preferred.</p> | |

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| <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. If LED lighting used, and where. 3. Make and model of each light used. | |
| <p>21. <u>Step/Ground Lighting</u></p> <p>There shall be two (2) LED lights ground lights, one (1) mounted below each of the body exit doors. Lighting to be operated by a switch in the console located in vehicle cab, and automatically when doors are opened.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Make and model of all ground lighting to be used. 3. Lighting dimensions. | |
| <p>22. <u>Scene Lighting</u></p> <p>Five (5) 7" x 9" scene lights are to be installed on the upper vehicle body. Two (2) to be installed on the passenger side of the body, two (2) to be installed on the driver side of the body, and one (1) to be installed on the rear of the body above the door. Passenger side, driver side, and rear scene lighting to have individual switches to operate each one, located in console in vehicle cab. Rear scene light to automatically operate when the vehicle is in reverse.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Make and model of scene lighting. 3. Lighting dimensions. 4. If lighting LED or halogen. 5. Mounting locations. | |
| <p>23. <u>Emergency Lighting</u></p> <p>Vehicle shall have an emergency lighting system that meets or exceeds the requirements of this section. LED lighting preferred. All emergency lighting to be controlled using controls in the cab console display, and must be configured into three (3) modes to be discussed at pre-build meeting.</p> <p>Front emergency lights to include:</p> | |

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| <p>a) One (1) Cab roof mounted light bar, VPD to supply</p> <p>b) Two (2) headlight wig wag</p> <p>c) Two (2) approx. 4.5" H x 7" W split red/blue grill light</p> <p>Driver side emergency lights to include:</p> <p>a) One (1) approx. 4.5" H x 7" W split red/blue light mounted to the cab close to the front corner of vehicle</p> <p>b) One (1) approx. 6.5" H x 10.5" W split red/blue light mounted to body in front upper corner</p> <p>c) One (1) approx. 6.5" H x 10.5" W split red/blue light mounted to body in rear upper corner</p> <p>d) One (1) approx. 6.5" H x 10.5" W split red/blue light mounted to body above wheel well</p> <p>e) One (1) approx. 4.5" H x 7" W split red/blue light mounted to body in rear lower corner</p> <p>Passenger side emergency lights to include:</p> <p>a) One (1) approx. 4.5" H x 7" W split red/blue light mounted to the cab close to the front corner of vehicle</p> <p>b) One (1) approx. 6.5" H x 10.5" W split red/blue light mounted to body in front upper corner</p> <p>c) One (1) approx. 6.5" H x 10.5" W split red/blue light mounted to body in rear upper corner</p> <p>d) One (1) approx. 6.5" H x 10.5" W split red/blue light mounted to body above wheel well</p> <p>e) One (1) approx. 4.5" H x 7" W split red/blue light mounted to body in rear lower corner</p> <p>Rear emergency lights to include:</p> <p>a) Two (2) approx. 6.5" H x 10.5 " W split red/blue lights mounted to body in upper corners</p> <p>b) Two (2) approx. 4.5" H x 7" W split red/blue lights mounted to body in lower corners</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Make, model, and dimensions of emergency lighting. 3. Mounting locations. 4. If lighting LED or halogen. | |
| <p><u>24. Chassis Dome Light Switch</u></p> <p>Provide and install switch to allow dome light to be disabled, if not already present.</p> <p><u>State:</u></p> <p>Compliance.</p> | |

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| <p>25. <u>"Do Not Enter" Lighting</u></p> <p>Provide and install red LED lights (non-flashing) and supporting signage that indicates "Do Not Enter When Light Illuminated". The lights shall be located:</p> <ul style="list-style-type: none"> a) Immediately adjacent to the exterior door handles to the Negotiator and Command Rooms (on the outside of the body) b) In the Command Room on the shared wall between the Command and Negotiator Rooms. This light is to be tied to the phone at workstation 6 and will automatically illuminate when the phone is off the hook. <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>26. <u>Cab Hazard Warning light</u></p> <p>A red flashing or rotating light, labelled "DO NOT MOVE VEHICLE WHEN LIGHT IS ON", shall be located in the driving compartment and illuminate automatically whenever the vehicles parking brake is not fully engaged and any of the following conditions exist:</p> <ul style="list-style-type: none"> a) Any passenger or equipment compartment door is not closed. b) Stabilizer system is not in its stowed position. c) Powered light tower is not stowed. d) Any other device permanently attached to the vehicle is open, extended, or deployed in a manner that is likely to cause damage to the vehicle if moved. <p>Compartments and equipment meeting all of the following conditions shall be permitted to be exempt from being wired to the hazard light.</p> <ul style="list-style-type: none"> a) The volume is less than or equal to 4ft³. b) The compartment has an opening less than or equal to 144 in². c) The open door does not extend sideways beyond the mirrors or up above the roof of the vehicle. d) All equipment in the compartment is restrained so that nothing can fall out if the door is open while the apparatus is moving. <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Make and model. | |

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| <p>27. <u>Back-Up Alarm</u></p> <p>Heavy duty white noise self adjusting 107 dBA electric back up warning alarm device. Model must be Brigade BBS-107 or City approved equivalent.</p> <p><u>State:</u></p> <ol style="list-style-type: none">1. Compliance.2. Type and dBA rating. | |
| <p>28. <u>Siren and Siren Speaker</u></p> <p>Supply and install vehicle Siren and PA system consisting of the following components:</p> <ol style="list-style-type: none">a) Tomar 940N Siren R Remote Siren Controller - mounted in front floor console.b) Dual 100W Speaker - mounting behind front grill or below/behind front bumper is preferred.c) PA microphone mounted on the console at the front on the passenger side. <p><u>State:</u></p> <p>Compliance.</p> | |

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| <p>1. <u>General</u></p> <p>All components, equipment, and installation procedures shall conform to the National Electric Code and the National Fire Protection Association Standards where the National Electric code is superseded.</p> <p>The wiring, electrical fixtures and components shall be the type as designed for mobile type installations subject to vibration, moisture, and continuous usage.</p> <p>All 120/240 Volt wiring in the body shall:</p> <ul style="list-style-type: none"> a) Use only fine stranded copper type THHN conductor with insulation rated for temperatures of at least 194 degrees Fahrenheit and wet locations shall be used. Conductors must be sized to the load, cord or conduit used, and circuit breaker rating. Wiring shall be colour coded. b) Use either metallic or non-metallic liquid tight flexible conduit rated at not less than 194 degrees Fahrenheit or Type SO or Type SEO cord with a WA suffix, rated at 600 volts at not less than 194 degrees Fahrenheit for fixed wiring systems. Cord or conduit shall be supported within 6 inches of any junction box and at a minimum of every 24 inches of run. c) Use flexible conduit supports made of non-metallic materials or of corrosion resistant or corrosion protected metal. All supports shall be of a design that does not cut or abrade the conduit or cord and shall be mechanically fastened to the vehicle. d) Use rubber or plastic grommets or bushing to protect cord or conduit from damage where it penetrates a metal surface. e) Not be attached to the chassis suspension components, water or fuel lines, air or air brake lines, hydraulic lines, exhaust system components, or low voltage wiring. Wiring cord and conduit shall be separated by a minimum distance of 12 inches from exhaust piping or shielded from such piping and separated from fuel lines by a minimum distance of 6 inches. f) Run to circuit breakers. Each breaker shall be labelled to indicate purpose. g) Use only fittings and components listed for the type of cord or conduit being installed. h) Have all splices be made in a listed junction box. Junction boxes shall: <ul style="list-style-type: none"> i) Conform to and be mounted in accordance with NFPA 70, Article 314. ii) Be accessible using ordinary hand tools iii) Not be permitted behind welded or pop-riveted panels | |

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| <p>iv) Have no more than the maximum number of conductors installed in it than permitted by NFPA 70, Article 134.16.</p> <p>i) Be installed to allow “flexing” between the driving and crew compartment, the body, and other areas whose movement would stress the wiring.</p> <p>j) Have connections and terminations that provide a positive mechanical and electrical connection. Connectors shall be installed in accordance with the manufacturer’s instructions. Wire nuts or insulation displacement and insulation piercing connectors shall not be used.</p> <p>k) Use switches that indicate the position of its contact points (i.e., open or closed) and shall be rated for the continuous operation of the load being controlled. All switches shall be marked with a label indicating the function of the switch. Circuit breakers used as switches shall be “switch rated” (SWD) or better. Switches shall simultaneously open all associated line voltage conductors. Switching of the neutral conductor alone shall not be permitted.</p> <p>l) Be wired through properly rated relays in listed enclosures that control all non-grounded current-carrying conductors when controlled by low voltage circuits.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>2. <u>Operation</u></p> <p>The 120/240 VAC system shall include:</p> <p>a) Instructions that provide the operator with the essential power source operating instructions, including the power-up and power-down sequence, and are permanently attached to the vehicle at any location where such operations can take place.</p> <p>b) Provisions for quickly and easily placing the power source into operation.</p> <p>c) Have a multi-position rotary transfer switch to enable operators to select the desired power supply (shore power, generator). All switch positions to be appropriately labelled.</p> <p>d) Have the control marked to indicate when it is correctly positioned for power source operation.</p> <p>e) A power source specification label permanently attached to the vehicle near the operators control station.</p> <p><u>State:</u></p> <p>Compliance.</p> | |

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| <p>3. <u>Stability Requirements</u></p> <p>Any fixed line voltage power source producing alternating current (AC) shall produce electric power at 60 Hz \pm 3 Hz when producing power at all levels between no load and the full rated power. Any fixed line voltage power source shall produce electric power at the full rated voltage \pm10% when producing power at all levels between no load and full rated power.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>4. <u>Wiring Identification</u></p> <p>Each line voltage circuit originating from the main panel board shall be identified. Identification shall reference a wiring diagram or wire list or shall indicate the final termination point of the circuit.</p> <p>Where pre-wiring for future power sources or devices exists, the un-terminated ends shall be marked with a label showing their wire size and intended function.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>5. <u>Grounding Requirements</u></p> <p>120/240V system grounding shall:</p> <ul style="list-style-type: none"> a) Be in accordance with Section 250-6 of the National Electric Code. b) Not use any ungrounded system. c) Use only stranded or braided copper conductors. d) Have the grounded current-carrying conductor (neutral) insulated from the equipment grounding conductors and from the equipment enclosures and other grounded parts. e) Have white or gray coloured neutral conductors. f) Have any bonding screws, straps, or buses in the distribution panel board or in other systems components between the neutral and equipment-grounding conductor removed and discarded. <p><u>State:</u></p> <p>Compliance.</p> | |

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| <p>6. <u>Bonding Requirements</u></p> <p>The neutral conductor of the power source shall be bonded to the vehicle frame. The neutral bonding connection shall occur only at the power source. In addition to the bonding required for the low voltage return current, each body and each driving or crew compartment enclosure shall be bonded to the vehicle frame by a copper conductor. The conductor shall have a minimum amperage rating as defined in section 310.15 of NFPA 70, of 115 percent of the rated amperage of the power source specification label.</p> <p>A single conductor that is sized to meet the low voltage and line voltage requirements is permitted to be used.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>7. <u>Power Supply Assembly</u></p> <p>The conductors used in the power supply assembly between the output terminals of the power source and the main over current protection device shall not exceed 144 inches in length.</p> <p>All power supply assembly conductors, including neutral and grounding conductors, shall have an equivalent amperage rating and shall be sized to carry not less than 115 percent of the amperage of the nameplate current rating of the power source.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>8. <u>Over Current Protection</u></p> <p>Manually resettable over current devices shall be installed to protect the line voltage electrical system components.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>9. <u>Power Source Protection</u></p> <p>A main over current protection device shall be provided that is either incorporated in the power source or</p> | |

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| <p>connected to the power source by a power supply assembly.</p> <p>The size of the main over current protection device shall not exceed 100 percent of the rated amperage stated on the power source specification label or the rating of the next larger available size over current protection device, where so recommended by the power source manufacturer. If the main over current protection device is subject to road spray, the unit shall be housed in a Type 4 rated enclosures</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p><u>10. Branch Circuit Over Current Protection</u></p> <p>Over current protection devices shall be provided for each individual circuit and shall be sized at not less than 15 amps in accordance with NFPA 70, Section 240.4. Any panel board shall have a main breaker where the panel has six or more individual branch circuits or the power source is rated 8 kW or larger. Each over current protection device shall be marked with a label to identify the function of the circuit it protects. Dedicated circuits shall be provided for any large appliance or device (air conditioning/heating units, large motors, etc) that require 60 percent or more of the rated capacity of the circuit to which it is connected and that circuit shall serve no other purpose.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p><u>11. Circuit Breaker Box</u></p> <p>There shall be a Newmar 120/240 VAC distribution/breaker panel provided on completed vehicle. All circuit breakers shall be rated to the wire size and load demand. There shall be colour coded LED indicator lights provided to indicate the status of each branch breaker.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p><u>12. Panel Board</u></p> <p>All fixed power sources shall be hardwired to permanently mounted panel boards unless one of the following</p> | |

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| <p>conditions exists:</p> <ul style="list-style-type: none"> a) All line voltage power connections are made through receptacles on the power source and the receptacles are protected by integrated over current devices. b) Only one circuit is hardwired to the power source, which is protected by an integrated over current device. <p>All panel boards shall:</p> <ul style="list-style-type: none"> a) Be visible and located so that there is unimpeded access to the panel board controls b) Be designed for use in their intended location c) Be protected from mechanical damage, tool mounting, and equipment storage <p>Where the power source is 120/240V and 120 V loads are connected, the manufacturer shall attempt to load balance to the extent that it is possible.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>13. <u>Location Rating Requirements</u></p> <p>All receptacles and electrical inlet devices shall be listed to UL 498, standard for Safety Attachment Plugs and Receptacles.</p> <ul style="list-style-type: none"> a) Wet Locations: <ul style="list-style-type: none"> i) All wet location receptacle outlets and inlet devices, including those on hardwired remote power distribution boxes shall be of the grounding type provided with a wet location cover and installed in accordance with Section 406.8 of the NFPA. ii) All receptacles located in a wet location shall be mounted not less than 24" from the ground. iii) No wet location receptacle shall be installed in a face up position. b) Dry Locations: <ul style="list-style-type: none"> i) All dry location receptacles shall be of the grounding type and installed not less than 12" above the interior floor height. ii) All receptacles shall be marked with the voltage and the current rating in amps. iii) No dry location receptacle shall be installed in a face up position. <p>All receptacles located in a dry location shall be of the grounding type. Receptacles shall not be less than 30</p> | |

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| <p>inches above the interior floor height.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>14. <u>120/240 V Testing and Certification</u></p> <p>The 120/240 volt electrical system shall be tested and certified by CSA and UL. The certification shall be delivered to the customer with the unit. All electrical must be certified CSA compliant.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>15. <u>Diesel Generator</u></p> <p>A diesel driven generator shall be installed to fully support the 120/240 VAC system, with a minimum 15% extra capacity for future requirements. Current frequency shall be 60 hertz.</p> <p>Generator shall:</p> <ol style="list-style-type: none"> Be fully insulated within compartment so that fumes, vapours, heat, and vibrations do not enter the cab or body. Compartment shall be fully seam welded. Be located in compartment S2. Compartment shall be reinforced to hold weight of generator and well insulated for noise. Insulation must have a temperature rating that exceeds the operating temperature ratings of the generator. Insulation must be attached using positive type fasteners; glue type adhesives are not acceptable. Be isolation mounted to minimize vibrations. Be a "quiet" series model if available. Maximum sound level prior to installation is 82 dBA at 60 Hz, under full load, 10 ft away. Be equipped with a high temperature automatic shutdown system and a low oil (pressure or level) automatic shut down system. Be installed in accordance with the generator manufacturer's requirements for ventilation and service accessibility. Preferably be installed so that compartment door can be closed during operation. If the generator is installed so that the compartment doors must be open during its operation, the generator shall be equipped with an interlock system to prevent its operation if the compartment doors are not open. Have readily accessible engine oil drain provisions or piping to a remote location for oil changing. | |

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| <p>i) Be able to be operated while standing at ground level. All controls necessary for safe operation shall be useable at this position.</p> <p>j) Be equipped with mandatory louvered compartment doors as required for adequate ventilation in full load conditions. Additional power fans may be used for ventilation as required.</p> <p>k) Be started using the chassis battery system with heavy duty stranded copper cables. The starter line shall by-pass the chassis master switch to permit generator operation when the apparatus engine is not running. The generator starter line shall be of sufficient size for the generator, adequately protected and supported inside the chassis frame area.</p> <p>l) Have its fuelling system plumbed to the chassis main fuel tank. A separate fuel line shall be installed directly from the tank, not connected to the truck engine fuel line system. The generator fuel line shall be properly protected and secured inside of the chassis frame, and protected from chafing at all wear points. A shut-off valve shall be provided between the generator and fuel line as it enters the compartment. System shall be configured so that the generator cannot utilize more than 75 percent of the fuel tank capacity.</p> <p>m) Have a muffler exhaust system for maximum quieting. The exhaust piping and discharge shall be located to prevent thermal damage to the apparatus and mounted equipment. The exhaust shall be piped away from the operator's position. Where parts of the exhaust system are exposed so that they can cause injury to operating personnel, protective guards shall be provided. Silencing devices shall not create exhaust back pressure that exceeds the limits specified by the engine manufacturer</p> <p>n) Be equipped with a generator monitoring panel to monitor performance and load demand during operation. Panel shall display generator frequency in hertz, line 1 current in amperes, line 2 current in amperes, generator voltage in volts, generator hours.</p> <p>o) Have a remote control panel in the cab, near the 12 V control panel. The controls required are one (1) pre-heat switch, one (1) start/stop switch, and one (1) generator running indicator light.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Make and model of generator. 3. Power ratings (peak and continuous), amperage and voltage output of generator. 4. Isolation mounting devices used. 5. Noise insulation method. 6. Maximum noise levels dBA prior to installation at 60 | |

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| <p>Hz, under full load, 10 ft away.</p> <p>7. Ventilation devices.</p> <p>8. If generator compartment is setup so that unit can be operated with compartment door closed.</p> <p>9. If controls for operation are useable at ground level, and if a remote operators panel is installed to meet this requirement.</p> <p>10. Starting system design.</p> <p>11. Fuelling system design.</p> <p>12. Exhaust design and construction.</p> | |
| <p>16. <u>Shore Power Inlet - 100 Amp</u></p> <p>Supply and installation of a 100 ampere, 240 VAC, single phase shore power inlet on the apparatus to provide an external power source for apparatus electrical circuits. Inlet to be located near the generator door area. A matching 100 ampere plug shall be shipped with the vehicle. Shore power shall be wired to the main circuit breaker in the circuit breaker distribution panel and feed all 120/240 electrical circuits on the apparatus.</p> <p>To protect both the generator and external power source from back feed, a manual switch shall be installed at the generator control panel to cut off the connection between the apparatus circuits and the generator when the external power source plug is in use.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>17. <u>Shore Power Inlet - Inverter</u></p> <p>Supply and installation of one (1) Kussmaul 30 amp "Super Auto-Eject" shore power inlet shall be furnished and installed. The shore power connection shall automatically disengage from the vehicle when chassis ignition is engaged. The shore power inlet shall provide an external power source for apparatus electrical circuits. A matching 30 ampere plug shall be shipped with the vehicle.</p> <p>A transfer switch shall be required to isolate one power source from the other where a circuit(s) is intended to be supplied from more than one power source. To protect the generator and the external power source from back feed, two 92) 120 VAC, 30 ampere 4PST auxiliary contact with safety interlock relays shall be installed. Relay shall cut-off the connection between the generator supply circuit and device circuits when shore power is connected.</p> <p>Transfer equipment, including transfer switches, shall</p> | |

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| <p>operate such that all ungrounded conductors of one power source are disconnected before any ungrounded conductors of the second power source are connected. The neutral conductor shall be switched through the transfer switch. The apparatus shall have a label permanently affixed at the power inlet that indicates the line voltage, and amperage.</p> <p>The inlet cover shall be yellow, and shall be located near the generator door.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p><u>18. Inverter</u></p> <p>A Newmar model 12-3550ICIP inverter, or City approved equivalent, shall be provided on vehicle that provides 3000 continuous watts, 140 amp capability, 120 VAC, 60 cycle output from 12VDC. Inverter shall:</p> <ul style="list-style-type: none"> a) Have a full function remote monitor/control panel b) Be powered by three (3) deep cycle batteries that utilize Absorbent Glass Mat (AGM) technology for efficient gas recombination. Batteries shall be mounted in a stainless steel pan with hold down provisions for a mobile application. There shall be one (1) master disconnect switch to control the auxiliary battery systems. The switch should be located in the external battery compartment. The exterior of the battery compartment door shall be labelled "CAUTION: UNIT EQUIPPED WITH MULTIPLE BATTERY SYSTEMS" c) Have one (1) voltage sensitive relay (VSR) provided and installed with the inverter deep cycle batteries to allow two (2) batteries to be charged at the same time. When the engine is started and the start battery reaches 13.7 volts, the VSR engages, allowing two battery banks (start and inverter supply) to be charged simultaneously. When the voltage drops below 12.8 volts (e.g. the engine is stopped), the VSR disengages, separating the batteries. This system eliminates the possibility of draining the wrong battery and protects the house battery from harmful engine start up spikes. <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Mounting location. 3. Battery make and model. | |

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| <p>19. <u>Exterior Outlets:</u></p> <p>Supply and installation in weather proof, appropriately labelled enclosures:</p> <ul style="list-style-type: none"> a) Two (2) 20A/120 VAC duplex GFCI receptacles; one per side at the rear of the unit, accessible from the ground. Outlet receptacles shall be 20 amps, straight-blade NEMA 5-20R. b) Two (2) 20A/120 VAC duplex GFCI receptacles, one (1) each side of body near rear wheel well area, accessible from the ground. Outlet receptacles shall be 20 amps, straight-blade NEMA 5-20R. c) One (1) 20A/120 VAC duplex GFCI receptacle in compartment C1. <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>20. <u>Smoke/ CO Detectors</u></p> <p>Each room in the apparatus body shall be equipped with smoke and carbon monoxide detectors.</p> <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Make and model of detector. 3. Power requirements of each detector. | |
| <p>21. <u>Wall Clocks</u></p> <p>Each room in the apparatus body shall be equipped with a wall mounted clock, with LED display, minimum 2.5" height, and 12 or 24 hours modes. One (1) to be located in the Command Room on the front wall. One (1) to be located in the Negotiator Room above the external door.</p> <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Make and model of detector. 3. Power requirements of each detector. | |

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| <p>1. <u>Chock Blocks</u></p> <p>Supply two (2) chock blocks to fit the rear tires. Collapsible chock blocks are not acceptable. Prefer chock blocks to have reflectors on the side for visibility, and to be located in a secured location inside an external storage compartment (close to the rear tires).</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Type of chock blocks. 3. If reflectors used. 4. Location. | |
| <p>2. <u>Road Emergency Safety Kit</u></p> <p>Supply one (1) set of three (3) dual faced triangular warning flares with fold away base complete with storage case per DOT requirements.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Type of chock blocks. 3. If reflectors used. 4. Location. | |
| <p>3. <u>Automatic Levelling System</u></p> <p>Supply and install a heavy duty 4 foot automatic, hydraulic levelling system designed for vehicle gross vehicle weight rating and City of Vancouver loading conditions.</p> <p>Levelling system shall:</p> <ol style="list-style-type: none"> a) Have four (4) mounting brackets bolted to the chassis frame rails, two (2) front and two (2) rear. Each jack shall bolt to the bracket attached to the chassis frame. b) Be fully automatic with a manual override. c) Have an indicator panel located in the body that displays the current status d) Have controls for the levelling system be located in the body adjacent to the electrical status panel. e) Have an automatic air ride dump valve. f) Have safety interlocks when jacks deployed to prevent the transmission from being removed from neutral, and to sound an alarm in the cab. NOTE: The apparatus should be equipped with an emergency | |

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| <i>O. Miscellaneous</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>bypass feature in the event a failure occurs in this interlock system.</p> <p>g) Supply four (4) jack pads, with a grab handle on one side. Pads to be stored on the underside of the body in close proximity to the jack feet.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Make and model. 3. Levelling system capacity. 4. Jack pad material and dimensions. 5. Dimensions. | |
| <p>4. <u>Camera System</u></p> <p>Supply and install one (1) exterior camera system with LCD display located in the driver's range of view.</p> <p>Camera system shall:</p> <ol style="list-style-type: none"> a) Be weatherproof. b) Be colour during the day and black and white at night with infra-red illuminators. c) Have an automatic heater built in that activates when the temperature drops below 10 degrees Celsius. d) Have a motorized shutter that closes when the camera is not in use (reverse camera only) e) Activate when the unit is in reverse, when the lane change indicator is activated, by a switch on the display, or through the audio/visual control panels. f) Be wired through the Audio/Visual controller to allow viewing on any display in the vehicle. g) Be able of displaying multiple cameras. h) Include one (1) camera at the rear of the vehicle to act as a backup camera, one (1) camera on the curb side of the unit to assist with changing lanes, and one (1) camera on the street side of the unit to assist with changing lanes. i) Also be able to be utilized for monitoring the perimeter of the vehicle. <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Make and model. 3. Resolution. 4. Power requirements. 5. Dimensions. | |

IV. COMMUNICATIONS AND INFORMATION TECHNOLOGY SYSTEMS

| <i>A. Communications and Information Technology Systems</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>1. <u>General</u></p> <p>All information technology and communications systems specified shall be supplied (unless otherwise indicated), installed, and supported by the contractor, including, but not limited to the design, inter-connecting wiring, and integration of all specified systems. All devices requiring the transmission or reception of signals from outside the unit require external, roof mounted antennas. Under no circumstances will the installation of these systems be subcontracted. All electrical, telephony, network, etc cabling shall be installed in Carlon Flex-Plus ENT conduit, and must be properly identified and labelled on both ends.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>2. <u>Console</u></p> <p>All additional controls and monitoring systems for emergency lighting and ancillary equipment will be incorporated into a console that is centrally mounted on the floor between the driver and passenger seat. The centre console should be within easy reach of the driver and passenger, and the driver should be able to activate all controls from a seated upright position.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>3. <u>Tactical Radios</u></p> <p>City of Vancouver to supply six (6) Harris M7300, 800 MHz mobile radios, or City approved equivalent, and corresponding NMO antennas and antenna cabling. Installation to include wiring to antenna and headset switch (described below), and antenna installation. Radios to be installed in the following locations:</p> <p>Qty 1 - remote mount unit in the chassis cab console. Placement of radio base to be determined at pre-build meeting.</p> <p>Qty 3 - complete units in the Command Room, one</p> | |

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| A. <i>Communications and Information Technology Systems</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>mounted on the underside of upper cabinets above each workstation in the slideout.</p> <p>Qty 2 - remote mount units in the Negotiator Room, one mounted in each of the desktop consoles.</p> <p>Placement of radio base to be determined at pre-build meeting.</p> <p>Radios shall:</p> <ul style="list-style-type: none"> a) Each be powered from the auxiliary batteries and shall be wired with soldered crimp on end connectors. Cables shall be enclosed in convoluted tubing and function identified with labelled collared shrink-wrap. Power shall be controlled by a continuous duty switch actuated by the battery disconnect switch. b) Each be wired to City supplied NMO style antenna using supplied antenna cabling, mounted on roof mounted antenna raceway, with minimum 4' spacing between antenna bases. <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>4. <u>VHF/UHF Radio with GPS Tracking</u></p> <p>Supply and install ICOM IC-2820H dual VHF/UHF radio, or City approved equivalent, with GPS tracking at workstation 1, next to tactical radio. Installation to include wiring to antenna and headset switch, and antenna.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>5. <u>Marine Radio</u></p> <p>Supply and install ICOM IC-M604B 5.0 watt marine radio, or City approved equivalent, at workstation 2, next to tactical radio. Installation to include wiring to antenna and headset switch, and antenna installation in antenna rail.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>6. <u>CB Radio with Weather</u></p> <p>Supply and install Uniden PC68Elite 40 channel CB radio,</p> | |

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| <p>A. <i>Communications and Information Technology Systems</i></p> | <p>Bidders to indicate compliance or deviations with specifications below</p> |
| <p>or City approved equivalent, with weather at workstation 3, next to tactical radio. Installation to include wiring to antenna and headset switch, and antenna installation.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>7. <u>Helicopter Downlink</u></p> <p>Supply and install Vislink digital microwave downlink receiver and antenna, or City approved equivalent. Receiver and control panel installation locations to be determined at pre-build meeting.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Make and model. | |
| <p>8. <u>Antenna Rails</u></p> <p>Two (2) antenna rails shall be provided and installed on the length of the roof of the body (1 per side).</p> <p>Each rails shall:</p> <ol style="list-style-type: none"> a) Be constructed of aluminum, forming a two piece box design b) Have a removable top section for easy access to the individual antenna wiring c) Have antenna wiring enter the body roof at a single point under the end of the rail. <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Make and model of switch. | |
| <p>9. <u>Headsets</u></p> <p>Each body mounted radio grouping (2 in Negotiator Room, and 3 in Command Room slideout) requires one Signatronics (or equivalent) over the head headset with boom microphone and push to talk switch installed. Each headset in the Command Room slideout is to be wired to a switch that will allow it to select which of the two workstation radios it will be receiving a signal from.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. | |

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| <p>A. <i>Communications and Information Technology Systems</i></p> | <p>Bidders to indicate compliance or deviations with specifications below</p> |
| <p>2. Make and model of switch.</p> | |
| <p>10. <u>Speaker</u></p> <p>One speaker system, with independent volume control, that allows the occupants of the front command room to monitor the telephone conversations in the rear.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Make and model of speaker. | |
| <p>11. <u>Front Mounted 52" Smart Board</u></p> <p>One (1) Smart Board 6052i interactive whiteboard (or City approved equivalent) shall be provided and installed on the front wall of the Command Room.</p> <p>Smart Board system shall:</p> <ol style="list-style-type: none"> a) Not require a projector installation b) Be dual touch enabled c) Be approximately 52" diagonal d) Can write using hand or pen e) Be touch gesture enabled for scaling, scrolling, transitioning between pages f) Be installed on permanent type mount bracket with horizontal and vertical adjustment capability. Pivoting adjustability would also be a benefit, if unit stays secured when vehicle is in motion. g) Be complete and fully operational, including all miscellaneous coax cable, 120 volt AC wiring, and cable connections. h) Have concealed support wiring. i) Be controlled by a server. Server location to be determined at pre-build meeting. Server shall be accessed by one (1) wireless keyboard and one (1) wireless mouse. j) The following shall be installed at the mounting location: <ol style="list-style-type: none"> i) All miscellaneous coax cable, Ethernet cabling, 120 volt AC wiring and cable connections to support all inputs from the audio/video routing and control system, and the integrated services router. <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Smart Board dimensions, make and model. 3. Mounting bracket functionality. 4. Mounting location. 5. Any additional Smart Board features. | |

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| A. <i>Communications and Information Technology Systems</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>12. <u>Exterior Mounted 30" LCD Flat Screen Monitor</u></p> <p>One (1) 30" multiple input, flat panel LCD monitor shall be provided and wall mounted in compartment C1.</p> <p>Monitor shall:</p> <ol style="list-style-type: none"> Be installed on permanent type mount bracket. Be complete and fully operational, including all miscellaneous coax cable, 120 volt AC wiring, and cable connections. Have concealed support wiring. The following shall be installed at the monitor location: <ol style="list-style-type: none"> All miscellaneous coax cable, 120 volt AC wiring and cable connections to support all inputs from the Audio Video routing and control system Two (2) additional shielded CAT6 inlet /outlets <p><u>State:</u></p> <ol style="list-style-type: none"> Compliance. Make and model. Provide specification sheet. Describe outlets installed. Mounting bracket make and model. Mounting bracket functionality. | |
| <p>13. <u>Audio Video Routing and Control System</u></p> <p>Supply and installation of one (1) AMX NI-3100 control station with RS323 control shall be used to operate and control the video system equipment. Three (3) AMX NXD-CV5, 5" color touch panel interface units shall be provided and installed:</p> <ol style="list-style-type: none"> One (1) in Command Room One (1) in Negotiator Room One (1) in exterior compartment C1 <p>The interface units shall communicate with the NI-3100 control station, which shall in turn control IR and RS-232 compatible components. The control shall be programmed with custom code to offer each interface unit with an interactive menu. The menus shall include screens to operate the camera systems from any interface with the ability to assign one as the master and steal control from the others at any time. The control code shall also include signal instructions to allow the operators</p> | |

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| A. <i>Communications and Information Technology Systems</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>to interact with the cameras, satellite TV receivers, and display screens. System shall be capable of routing all audio/video inputs (including Satellite TV, Divar outputs, camera system). Any input source can be displayed at any of the specified monitors.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance 2. Make and model. 3. Power requirements. | |
| <p>14. <u>Digital TV Satellite and Receiver</u></p> <p>Supply and installation of a digital satellite television system. Satellite shall be fully installed:</p> <ol style="list-style-type: none"> a) One (1) TracVision R6DX or equivalent automatic mobile digital satellite system with dual LNB and in-motion tracking. Output is to be wired to the two (2) receivers. Satellite must be located so that it does not interfere with operation of other roof mounted equipment. b) Two (2) Bell TV compatible receivers, each with outputs wired to the audio video routing system <p>The cost of the service and activation shall be the responsibility of the Vancouver Police Department.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Make and model. 2. Power requirements. | |
| <p>15. <u>Audio Video Recorder</u></p> <p>Supply and installation of one (1) Bosch Divar DVR-16L-100A Digital Video Recorder with internal DVD writer, 16 channels, 1000 GB storage. Audio Video recorder shall be mounted in the equipment rack and wired to the audio video routing system.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance 2. Make and model. 3. Power requirements. | |

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| <i>A. Communications and Information Technology Systems</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>16. <u>Negotiator Room Camera and Recording System</u></p> <p>Supply and installation of two (2) Panasonic WV-CF324 Metal Body Day-Night Fixed dome cameras and two (2) PZM Series PZM-11 Microphone Wall Plates in the Negotiator Room. Components to be fully installed with outputs wired to one of the Negotiator Room desktop computers. Mounting location to be determined at pre-build meeting.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>17. <u>Integrated Services Router</u></p> <p>Installation of VPD supplied Cisco 3945 integrated services router in equipment rack.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Power requirements. | |
| <p>18. <u>Cellular Network</u></p> <p>Supply and installation of one (1) cell network antenna for cellular network access to the Rogers and Cisco for Roger's LTE network (with 3G backward compatibility). Antenna to be mounted to provide best access and to be wired to the integrated services router. Cellular LTE HWIC to be supplied and installed in integrated services router.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Antenna make, model and part number. 3. Cellular LTE HWIC make, model, and part number. | |
| <p>19. <u>Wi-Fi Network - External Access Point</u></p> <p>Supply and installation of one (1) Cisco AIR-CAP1552E-A-K9 external access point and recommended three (3) antennas to provide wi-fi network access to the exterior of the vehicle. External Access Point system shall:</p> <ol style="list-style-type: none"> a) Use Cisco certified antennas b) Have antennas placed to maximize access around the | |

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| A. <i>Communications and Information Technology Systems</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>vehicle perimeter</p> <p>c) Have antennas wired to the external access point with loss on cabling calculated to comply with Industry Canada regulations</p> <p>d) Be wired to the integrated services router (Cisco NME-AIR-WLC6-K9 wireless controller will be installed in integrated services router by VPD)</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Antenna make, model, and part number. 3. Antenna placement. 4. Access point placement. 5. Compliance with Industry Canada antenna wiring regulations. | |
| <p>20. <u>Wi-Fi Network - Internal Access Point</u></p> <p>Supply and installation of one (1) Cisco AIR-CAP3502I-x-K9 internal access point and recommended antenna to provide wi-fi network access to the exterior of the vehicle. Internal Access Point system shall:</p> <ol style="list-style-type: none"> a) Be mounted placed to maximize access in the vehicle interior. Roof mounting preferred. b) Be wired to the integrated services router (Cisco NME-AIR-WLC6-K9 wireless controller will be installed in integrated services router by VPD) <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Internal Access point placement. | |
| <p>21. <u>Data Satellite and Receiver</u></p> <p>Supply and installation of an AVL Technologies TracStar 1.2 M 1278-09 (or City approved equivalent), 8 Watt Ku-Band Auto-Deploy Mobile VSAT Antenna system on vehicle which includes:</p> <ol style="list-style-type: none"> a) Wiring to onboard computer and phone networks through Cisco Integrated Services Router b) 1.2 Meter Prime Focus Offset Reflector with reflector rear cover c) Acquisition and lock within 3 minutes or less d) Automatic fully software controlled dish pointing e) Optimized signal reception and transmission f) Automatic signal cross polarization with confirmation from the NOC g) Fast reacquisition based on the last good position h) System authentication with the service provider | |

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| <p>A. <i>Communications and Information Technology Systems</i></p> | <p>Bidders to indicate compliance or deviations with specifications below</p> |
| <p>i) System monitoring based on GPS location j) Automatic antenna seating upon vehicle movement (DLB to provide feedback to system) k) Certified for auto-commissioning on Agiosat North American Networks L-Band Satellite Modem l) TracStar One-button Full function Rack mount auto deploy controller m) Peaking and cross-pol adjustment using GPS, compass and level sensor inputs n) Certified for auto-commissioning on most North American Networks</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Satellite make and model. 3. Power requirements. 4. Provide detailed specification sheets. 5. Maximum uplink transfer rate from field location to hub. 6. Data rate. | |
| <p>22. <u>Phones</u></p> <p>VPD to supply and install phones upon delivery. Phones to be installed are Cisco 9971 models.</p> <p><u>State:</u></p> <p>Compliance.</p> | |
| <p>23. <u>Equipment Rack</u></p> <p>Supply and Installation of standard 19" width broadcast equipment rack in the Command Room in approximate location as shown in the drawing.</p> <p>Equipment Rack shall:</p> <ol style="list-style-type: none"> a) Be UL/ULC certified, and meet all vehicle weight distribution requirements. b) Be secured to the wall. c) Be a swing out model, to allow for accessibility to the rear of the rack. d) Have a 24" useable depth and height shall be sufficient to support all equipment installed in unit, with a minimum of 4 additional units for future installations. e) Have vertical cable management along one (1) vertical edge. f) Have a ¼-20 threaded grounding and bonding stud installed in base of enclosure. | |

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| A. <i>Communications and Information Technology Systems</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>g) Come equipped with steel rack rail with tapped 10-32 mounting holes in universal EIA spacing, with a black finish, and numbered unit spacing.</p> <p>h) Have removable split rear knockout panels with ½", ¾", 1" and 1-1/2" electrical knockouts and top BNC knockouts for UHF/VHF antenna.</p> <p>i) Be fully weld constructed using of steel and finished in durable black powder coat paint.</p> <p>j) Have a solid front door with a key lock. The door is to be hinged to allow for maximum accessibility.</p> <p>k) Have a power distribution unit.</p> <p>l) Have an Uninterruptible Power Supply (UPS) supplied and installed to provide protection for electronic equipment from utility power blackouts, brownouts, sags and surges. UPS shall provide continuous power from the batteries until utility power returns to safe levels or the batteries are fully discharged.</p> <p>m) Have the following equipment installed:</p> <ul style="list-style-type: none"> i) Four (4) units of Cat 6 Ethernet patching (24 patches per unit). Horizontal cable management required above and below each unit. ii) One (1) unit of video patches to support audio video control router components. Horizontal cable management required above and below each unit. iii) One (1) microwave downlink receiver iv) One (1) data satellite receiver v) Two (2) satellite TV receivers vi) One (1) rack mount UPS vii) One (1) VPD supplied integrated services router viii) One (1) audio video recorder ix) Four (4) units required to be maintained for installation of storage devices by VPD x) Minimum six (6) additional units required to be maintained for future equipment installations. xi) Any additional units required for component, rack fans, heaters, power supply, etc. installation as required in this specification. <p>n) Have all required equipment rack fans, heaters, and power supplies installed to support installed equipment. Mounted heaters and coolers shall have a user configurable thermostat and must be able to automatically maintain a constant temperature (5-20 deg C) within the rack enclosure.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Rack make, model and part number. 3. Rack weight capacity. 4. How many units rack has. 5. Any mounting restrictions. 6. Power distribution system make, model, and part number | |

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| <i>A. Communications and Information Technology Systems</i> | Bidders to indicate compliance or deviations with specifications below |
| 7. Power Distribution unit details. 8. Provide cabinet layout. | |

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| <i>A. Communications and Information Technology Systems</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>24. <u>Colour MFD Printer</u></p> <p>Installation of VPD supplied multi-function device printer in the Command Room. Probable model is the Xerox 8860MFP. Printer location to be determined at the pre-build meeting.</p> <p>Printer requires the following wiring:</p> <ul style="list-style-type: none"> i. Two (2) circuit labelled RJ-45 plugs with shielded CAT6 cabling that terminates at the rack mount patch panel with 12' of slack per cable. A cable certification report confirming that all network wiring complies with CAT6 specifications to be included. ii. One (1) 120 VAC, 20 amp, duplex straight blade receptacle (NEMA 5-20R) circuit labelled outlet. <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Recommended printer location. | |
| <p>25. <u>Property Tag Printer</u></p> <p>Installation of VPD supplied property tag printer in the Command Room. Probable model is the Zebra GK420T. Printer location to be determined at the pre-build meeting. Prefer MFD printer and Property Tag Printer to be next to each other.</p> <p>Printer requires the following wiring:</p> <ul style="list-style-type: none"> iii. One (1) circuit labelled RJ-45 plugs with shielded CAT6 cabling that terminates at the equipment rack mount patch panel with 12' of slack per cable. A cable certification report confirming that all network wiring complies with CAT6 specifications to be included. iv. One (1) 120 VAC, 20 amp, duplex straight blade receptacle (NEMA 5-20R) circuit labelled outlet. <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Recommended printer location. | |
| <p>26. <u>Telescoping Pneumatic Mast</u></p> <p>There shall be one (1) 30' Will-Burt heavy duty pneumatic powered telescoping mast. Mast shall utilize air from the chassis brake system. Air to operate the mast must be</p> | |

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| A. <i>Communications and Information Technology Systems</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>drawn from a drier system and be regulated to 20psig and have a back pressure protection valve.</p> <p>Telescoping mast shall:</p> <ol style="list-style-type: none"> Be approximately 30' tall. Be mounted externally on the rear bumper of the vehicle. Be manufactured using high strength components and materials that are designed for continuous outdoor use. Internal components must be sealed from the elements. Have low friction mating components to allow for smooth operation and longer life. Have bumpers to reduce shock on extension and retraction. Come complete with mounted coiled cable conduit for the specified mast length and installation of the specified components. Have a pneumatic kit to raise and lower the mast. Kit to include air control valve, regulator, air gauge, and back pressure protection valve. Be capable of having command camera. Have an aluminium cover to protect the mast from the elements and to store control cables and hoses. The cover shall be easily removable for maintenance access, and shall be painted the same as the body colour. Be wired to a labelled warning light visible to the driver to warn when the mast is out of its nested position. Have automatic illumination in its operational envelope that activates when the mast assembly is being raised, so that operators can see the mast being raised and lowered safely. <p><u>State:</u></p> <ol style="list-style-type: none"> Compliance. Make and model. Power requirements. Maximum height of mast. Mast material. Weather proofing technology. Coiled cable dimensions. Payload capacity. Nested height. Number of sections. | |
| <p>27. <u>Command Camera System</u></p> <p>There shall be one (1) Bosh MIC400AL14636N with pan-tilt-zoom and brushless motor technology provided and installed on the specified pneumatic mast. The camera</p> | |

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| A. <i>Communications and Information Technology Systems</i> | Bidders to indicate compliance or deviations with specifications below |
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| <p>system shall be a high resolution unit with day/night functionality and a 36x optical zoom lens. Camera to be wired to the audio visual router and controller. Camera to have an enclosure to prevent rain and snow from accumulating on camera while truck is traveling. Enclosure to automatically open when mast is activated.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Make and model. 3. Power requirements. 4. Enclosure design. | |
| <p>28. <u>Command Light</u></p> <p>Supply and installation of one (1) Command Light CL605 on the vehicle roof.</p> <p>The command light shall:</p> <ol style="list-style-type: none"> a) Have six (6) weatherproof 500 watt output, 120 volt, quartz halogen lights. Light heads shall be mounted in three (3) pairs, giving two (2) vertical lines of three (3) when the lights are in the upright position. b) Not require tapping into vehicle braking system to be operated, eliminating the chance for vehicle brake problems. c) Be a 2-stage articulating device with a lighting bank on top of a second stage that is capable of 360 degrees continuous rotation. d) Be elevated by electric linear actuators. One (1) actuator shall elevate the light bank and one (1) actuator shall adjust the light bank angle from 0 to 110 degrees. e) Have an overall extended height from the base to the top pair of lights of 120”. f) Have power transmitted through power collecting rings thus allowing 360 degree rotation in either direction. g) Be controlled with a hand held umbilical line remote control. The storage station for the remote control unit shall be equipped with a button to activate the “auto-park” automatic nesting feature. The controls on the remote box shall be: <ol style="list-style-type: none"> i) Three (3) switches, one (1) for each light bank ii) One (1) light bank rotation switch iii) One (1) switch for elevating lower stage. iv) One (1) switch for elevating upper stage. v) One (1) indicator light to indicate when light bank is out of roof next position. vi) One (1) indicator light to indicate when light bank is rotated to proper next position. | |

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| <i>A. Communications and Information Technology Systems</i> | Bidders to indicate compliance or deviations with specifications below |
|---|--|
| <p>vii) One (1) on/off switch for the top mounted strobe.</p> <p>h) Have a tower base light that illuminates the envelope of motion during any movements of the light tower mast. A green strobe light shall be supplied with the light tower mounted at the highest point. A switch shall be provided on hand held control head for strobe light.</p> <p>i) Be constructed using aluminum, with stainless steel shafts and bronze bushings for long life and low maintenance.</p> <p>j) Have approximate nested dimensions of 40" wide x 73" long x 13" high and weigh approximately 310 lbs.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Make and model. 3. Power requirements. 4. Nested dimensions. 5. Weight. 6. Power transmission method. 7. Range. | |

V. OPTIONAL EQUIPMENT

| <i>A. Options</i> | Bidders to indicate compliance or deviations with specifications below |
|--|--|
| <p>1. <u>Awning Screen Room</u></p> <p>Supply one (1) full size awning-to-ground screen enclosure for the curb side awning.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Make and model. 2. Any distinguishing design features. | |
| <p>2. <u>Four Wheel Drive</u></p> <p>Four wheel drivetrain.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Front axle rating, curb weight, and available payload. 2. Rear axle rating, curb weight, and available payload. | |
| <p>3. <u>Smart Board Bridge Software</u></p> <p><u>State:</u> What is offered.</p> | |
| <p>4. <u>Message Board</u></p> <p>Message board that can be mounted on vehicle exterior.</p> <p>Message board shall:</p> <ol style="list-style-type: none"> a) Be used to message staff and the public. b) Use LED lighting. c) Be programmable from on-board workstation. <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Compliance. 2. Make and model offered. 3. Dimensions. 4. Weight. 5. If possible to have multiple mounting locations. | |
| <p>5. <u>Cameras, Combining and Viewing Software</u></p> <p><u>State:</u></p> | |

REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
AND COMPLIANCE MATRIX

| <i>A. Options</i> | Bidders to indicate compliance or deviations with specifications below |
|--|--|
| What is offered. | |
| <p>6. <u>Exhaust Diverter</u></p> <p>Supply and installation of an exhaust diverter valve that is located in line of exhaust tubing and controlled from driver's position to re-route exhaust discharge. Exhaust diverter valve shall be constructed from 14 gauge stainless steel material with air actuated control.</p> <p>As a default, the exhaust shall discharge to street side just ahead of rear wheels, and when selected the exhaust shall discharge to curb side just ahead of rear wheels.</p> <p><u>State:</u></p> <p>What is offered.</p> | |
| <p>7. <u>Roll-Out Drawers</u></p> <p>Supply and installation of roll out trays in compartments C2, C3, C4 and S3.</p> <p>Trays to be welded construction mounted on full width slide-out utilizing a heavy duty roll-out glider mechanism. A device shall be installed to fix tray at either "in" position or fully extended.</p> <p><u>State:</u></p> <ol style="list-style-type: none"> 1. Tray material and finishing. 2. Tray gliding mechanism. 3. Tray locking mechanism. | |
| <p>8. <u>Negotiator Room Curb Side Flip Desk</u></p> <p>Remove lower drawer unit on curb side of Negotiator Room and modify full width desk so that front of desk folds down allowing Negotiators better access to wall mounted white boards.</p> <p><u>State:</u></p> <p>Design.</p> | |

REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
AND COMPLIANCE MATRIX

| A. Options | Bidders to indicate compliance or deviations with specifications below |
|--|--|
| <p>9. <u>Telescoping Pneumatic Mast</u></p> <p>Installation of City supplied Wil-Burt 30' mast (Model #7-30-457/467) instead of mast as specified in section IV.A.26. Mast shall utilize air from the chassis brake system. Air to operate the mast must be drawn from a drier system and be regulated to 20psig and have a back pressure protection valve.</p> <p>Telescoping mast shall:</p> <ul style="list-style-type: none"> a) Be mounted externally on the rear bumper of the vehicle. b) Be tested and retrofitted for use in tendered vehicle, including upgrading seals. c) Have bumpers to reduce shock on extension and retraction. d) Come complete with mounted coiled cable conduit for the specified mast length and installation of the specified components. e) Have a pneumatic kit to raise and lower the mast. Kit to include air control valve, regulator, air gauge, and back pressure protection valve. f) Be capable of having command camera installed. g) Have an aluminium cover to protect the mast from the elements and to store control cables and hoses. The cover shall be easily removable for maintenance access, and shall be painted the same as the body colour. h) Be wired to a labelled warning light visible to the driver to warn when the mast is out of its nested position. i) Have automatic illumination in its operational envelope that activates when the mast assembly is being raised, so that operators can see the mast being raised and lowered safely. <p><u>State:</u></p> <ul style="list-style-type: none"> 1. Compliance. 2. Any concerns regarding specific make and model specified for tendered application. 3. Any retrofitting recommendations. 4. Power requirements. | |
| <p>10. <u>Extended Warranty</u></p> <p><u>State:</u></p> <p>Provide terms and pricing of optional extended warranty where available for the vehicle and components.</p> | |

REQUIREMENTS
DETAILED EQUIPMENT SPECIFICATIONS
AND COMPLIANCE MATRIX

| | |
|---|--|
| <i>A. Options</i> | Bidders to indicate compliance or deviations with specifications below |
| 11. <u>Other suggested options</u> State other suggested options that will enhance the operation and design of the unit. | |

SCHEDULE D - PRICING

2.0 Terms of Payment

- 2.1 The City's standard payment terms are Net 30 days after receipt of an approved invoice, however discounts or more favourable terms which may be offered by the Proponent will be taken into consideration in the financial evaluation. Please indicate below if other than Net 30.

| Payment Terms | |
|-----------------|------------------------------|
| Alternate Terms | Describe Additional Discount |
| | |

- 2.2 Describe in detail any other discount method offered.

3.0 Product Price Schedule

Refer to Schedule B - Requirements - Detailed Equipment Specifications and Compliance Matrix

| Item | Qty | Description | Unit Price | Total |
|---|-----|--|----------------------------------|----------|
| 1. | 1 | Truck Chassis and Body as per the specifications in the following Sections: I. General Specifications, II. Detailed Chassis Specifications and III. Detailed Body Specifications | \$ _____ \$ _____ \$ _____ | \$ _____ |
| 2. | 1 | Systems as per Section IV. Communications and Information Technology | \$ _____ | \$ _____ |
| HST SHOULD NOT BE INCLUDED IN PRICE | | | | \$ _____ |
| DELIVERY COSTS SHOULD BE INCLUDED IN PRICES | | | | |

4.0 Options

| Item | Qty. | Description | Reference | Unit Price |
|------|------|---|-------------------------------------|------------|
| 1 | 1 | Awning Screen Room | Section V. Optional Equipment | \$ _____ |
| 2 | 1 | Four Wheel Driver | Section V. Optional Equipment | \$ _____ |
| 3 | 1 | Smart Bridge Software | Section V. Optional Equipment | \$ _____ |
| 4 | 1 | Message Board | Section V. Optional Equipment | \$ _____ |
| 5 | 1 | Cameras, Combining, and Viewing Software | Section V. Optional Equipment | \$ _____ |
| 6 | 1 | Exhaust Diverter | Section V. Optional Equipment | \$ _____ |
| 7 | 1 | Roll Out Drawers | Section V. Optional Equipment | \$ _____ |
| 8 | 1 | Negotiator Room Curb Side Flip Desk | Section V. Optional Equipment | \$ _____ |
| 9 | 1 | Telescoping Pneumatic Mast | Section V. Optional Equipment | \$ _____ |
| 10 | 1 | Extended Warranty | Section V. Optional Equipment | \$ _____ |
| 11 | 1 | Other Suggested Options (please itemize and add rows) | Section V. Optional Equipment | \$ _____ |
| | | HST SHOULD NOT BE INCLUDED IN PRICE | TOTAL | \$ _____ |
| | | DELIVERY COSTS SHOULD BE INCLUDED IN PRICES | | |

SCHEDULE E
INSURANCE CERTIFICATE

SAMPLE

SCHEDULE F
WORKSAFE BC CLEARANCE LETTER

SAMPLE

SCHEDULE G

PROPOSAL

SAMPLE

SCHEDULE G

RFP

SAMPLE