



**NEW WESTMINSTER
REQUEST FOR PROPOSAL**

NWRFP-13-42

**Construction of a Tandem Axle Dump Truck for
Road Work & Snow Removal**

Closing Time:
October 17, 2013

3:00 P.M., Local Time, Vancouver BC

Closing Location:
Main Reception Desk
City of New Westminster
511 Royal Avenue,
New Westminster, B.C. V3L 1H9

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| Title Page for Request for Proposal | Page 1 |
| Introduction | Page 2 |
| General Conditions | Page 4 |
| Scope of Work, | Page 7 |
| Proposal Selection | Page 8 |
| Appendix A | Page 9 |
| Appendix B | Page 15 |

Further requests for information :

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Purchasing Supervisor

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Technical: Kevin Thorpe

Fleet Services Supervisor

Telephone: (604) 517-5420 Fax: (604) 527-7783

kthorpe@newwestcity.ca

| | | | |
|--|--|-------|-------|
| COMPANY NAME | | | |
| Address: | | | |
| | | | |
| Telephone number | | Email | |
| <u>Signature:</u> by officer with express authority to enter into contract | | 1. | DATED |



INTRODUCTION

PURPOSE AND BACKGROUND OF THE REQUEST FOR PROPOSAL

The City of New Westminster is replacing a Tandem Axle Dump Truck that is capable for road work and snow removal. It will require a 16' steel constructed box, with high lift cylinders on the tail gate. It is also used for snow removal with an automated sander unit and a lower 10' under body plow.

RESPONSE TIME AND PHYSICAL FORMAT OF PROPOSAL

Three (3) copies of the Proposal, including one signed and initialed copy of this Request for Proposal, are to be submitted and clearly marked on the outside envelope or box as follows:

CONSTRUCTION OF A TANDEM AXLE DUMP TRUCK WITH UNDER BODY PLOW.

Proposals will be received by the City at the location and time indicated on the title page of this Request for Proposal. The clock at the MAIN RECEPTION DESK is the official clock.

It is the Proponent's sole responsibility to ensure that its Proposal is received on time. Fax or electronic mail submissions will not be accepted. Late proposals may be returned unopened.

Proposals should remain unchanged for consideration for a period of **60** days from date of closing. Successful proposals submitted may become part of contracts for service.

The City reserves the right not to respond to inquiries made within 4 days of the closing date. Inquiries and responses will be recorded and may be distributed to all invited consultants at the discretion of the City.

- Understanding of assignment;
- Approach;
- Cost/Schedule;
- Project Team/Experience

The following must be included as part of the proposal:

1. A brief outline of the Consultant understanding of the project.
 - A detailed work program and description of the methodology and data sources to be used for all parts of the work.
2. A schedule of activity from date of award to final submission.
3. The cost to complete the project, with an estimate of how much of the budget is to be used for each component of the project. This budget should also include an estimate of



NEW WESTMINSTER

disbursements and the charge-out schedule for personnel and disbursements in general. No overhead costs shall be added to disbursements.

4. The names of the project manager and project team, along with brief resumes and a description of the role of each member in the team and the number of hours to be spent on the project by each team member.
5. A list of any sub-consultants with a brief resume of experience.
6. Information on directly relevant experience undertaken by the consulting team.
7. Names of three references of clients who have undertaken similar work and who may be contracted to gauge the performance of the Consultant.
8. A statement of commitment to undertake the project and provide the staff and support necessary to complete the project on time and on budget.

The City of New Westminster reserves the right to invite proposals from other parties and to reject any or all proposals. The City is looking for a proposal offering best overall value. The proposal will be evaluated based on selection criteria (see below) such as work methodology, understanding of project requirements, team experience and qualifications, schedule, and costs. The lowest fee submission or any proposal may not necessarily be accepted.

OWNERSHIP OF PROPOSALS AND FREEDOM OF INFORMATION

All documents submitted to the City of New Westminster become the property of the City, and as such, Proponents are advised that parts, or all, of their proposals may be subject to the provisions of British Columbia's *Freedom of Information and Protection of Privacy (FIPP) and Community Charter*. Proponent's who wish to ensure particular parts of their Proposals are protected from disclosure under the FIPP Act should specifically identify any information or records provided with their proposals that constitute a) trade secrets, and b) that are supplied in confidence, and c) the release of which could significantly harm their competitive position. Information that does not meet all three of the foregoing categories may be subject to disclosure to third parties. Please refer to the *Freedom of Information and Protection of Privacy Act* for further information.

All information, data systems or other material prepared or collated for this project will become the property of the City of New Westminster. Staff will identify the data and the presentation format for any findings to be made available to the public.



NEW WESTMINSTER
GENERAL CONDITIONS

CONFIDENTIALITY OF CITY INFORMATION

Any information acquired about the City by a Proponent during this RFP process must not be disclosed unless authorized in writing by the City, and this obligation will survive the termination of this RFP process. The awarding of any contract or the reaching of any agreement for the provision of legal services to the City will not permit any Proponent to advertise a relationship with the City without the City's prior written authorization.

The following conditions apply:

- This RFP, or any portion thereof, may not be used for any purpose other than the submission or proposals.
- The successful proponent must agree not to divulge or release any confidential information that has been received during the course of carrying out its duties or performing its services.

PROFESSIONAL CONDUCT

Proponents will comply with published professional standards governing these services.

PROPONENT'S EXPENSES

Proponents shall be solely responsible for their own expenses in preparing a proposal and subsequent negotiations with the City, if any. If the City elects to reject all proposals, the City will not be liable to any Proponent for any claims, whether for costs or damages incurred by the Proponent in preparing the proposal, loss of anticipated profit in connection with any final Contract, or any other matter whatsoever.

LIMITATION OF DAMAGES

Further to the preceding paragraph, the Proponent, by submitting a proposal, agrees that it will not claim damages, for whatever reason, relating to the Contract or in respect of the competitive process, in excess of an amount equivalent to the reasonable costs incurred by the Proponent in preparing its proposal and the Proponent, by submitting a proposal, waives any claim for loss of profits if no Contract is made with the Proponent.

**THE PROPONENT ACKNOWLEDGES AND AGREES THAT:**

1. Other City officers (except those stated on the Title page), City employees and elected officials will not be contacted directly or indirectly regarding this Request for Proposal.
2. This RFP is not a call for tenders but is intended to invite Proponents to submit detailed proposals by which the City's objectives, as stated herein, can be met, following which the City will enter into further negotiations with the successful Proponent for the provision of the required services;
3. The City has the absolute right to accept or reject any Proposal for any reason, to negotiate with any Proponent or Proponents and to evaluate the Proposals in accordance with all information submitted by the Proponents and to abandon the RFP at any stage, for any reason.
4. There shall be no obligation on the part of the City of New Westminster to receive further information, whether written or oral, from any Proponent nor to disclose the nature of any proposal received; and if its Proposal is accepted by the City, following negotiations with the City, the Proponent will be required to execute a formal contract to provide the services, in a form acceptable to the City.
5. The City of New Westminster shall not be obligated in any manner whatsoever until a written agreement has been duly executed relating to an approved proposal.

COMPLIANCE WITH LAWS AND REGULATIONS

Any successful Proponent must be prepared, at no extra cost, to give all the notices, and obtain all the licenses and permits required to provide the services in the City of New Westminster and to comply with all Federal Provincial and Municipal laws applicable to the services or the performance of the contract, including those of WorkSafe BC.

LITIGATION

In addition to any other provision of this RFP, the City may, in its absolute discretion, reject a proposal if the proponent, or any officer or director of the proponent submitting the proposal, is or has been engaged directly or indirectly in a legal action against the City, its elected or appointed officers, representatives or employees in relation to any matter.

In determining whether or not to reject a proposal under this section, the City will consider whether the litigation is likely to affect the proponent's ability to work with the City, its consultants and representatives and whether the City's experience with the proponent indicates that there is a risk the City will incur increased staff and legal costs in the administration of the contract if it is awarded to the proponent.

SUBCONTRACT AND ASSIGNMENT

In the event of any proposed sub contracting arrangement (which includes a joint proposal submitted by two bodies having no formal corporate links) the responsibility for the submission of a



NEW WESTMINSTER

proposal, any subsequent negotiation, and the administration of any resulting contract for service will be that of the first Proponent named on the title page.

Under no circumstances may any part of an executed contract resulting from this RFP be sub-contracted or assigned to another firm, person or company without the prior written authorization of the City of New Westminster.

INSURANCE

Any contract for service, which results from this RFP process, will also include a term requiring the service provider(s) to, insofar as is legally permissible, indemnify and hold harmless the City, its officers and employees, from any and all liability arising out of the service provider's or a contractor's performance or non-performance of the terms of the contract or out of the provision of the service generally.

ACTING IN CONFLICT

Any contract for service, which results from this RFP process, will include a term prohibiting the service provider(s) from acting for any party whose interests are in conflict with those of the City, unless specific prior waiver of that term has been given in writing by the City in each instance.

CONFLICT OF INTEREST

By submitting a proposal, the Proponent warrants that neither it nor any of its officers or directors, or any employee or subcontractor, has any financial or personal relationship or affiliation with any elected official or employee of the Corporation or their immediate families which might in any way be seen or perceived (in the Corporation's sole and unfettered discretion) to create a conflict.

MULTIPLE PREFERRED PROPONENTS

The City reserves the right and discretion to divide up the services, either by scope, geographic area, or other basis as the City may decide, and to select one or more preferred proponents to enter into discussions with the City for one or more contracts to perform a portion or portions of the Services.

In addition to any other provision of this RFP, proposals may be evaluated on the basis of advantages and disadvantages to the City that might result or be achieved from the City dividing up the services and entering into one or more contracts with one or more proponents.



SCOPE OF WORK

SCOPE OF WORK

The City of New Westminster is seeking the services of a proponent to provide the design and construction of a Tandem Axle Dump Truck for Road Work & Snow Removal.

Here is a summary of the requirements:

1. Provide complete specifications and full five sided detailed drawings.
2. Provide any appropriate information on the material, fabrication and finish specifications that will be applied in the construction of the apparatus.
3. Provide multiple site inspections with a pre determined schedule.
4. The consultant is required to supply the location address and company name of the local business that is qualified to complete all warranty work and supply parts as required. A copy of the agreement between the two agencies to perform such work shall be supplied with this proposal.

PROJECT SCHEDULE

The consulting team will have a maximum 8 months to complete the project from date of award. This includes sufficient time for city staff to retrieve data requested and review draft reports, presentations.

If, in the consulting team's opinion, an alternative schedule would be better suited to achieving the project objective, this should be clearly indicated in the proposal. Accelerated schedules will be considered more favorably during the proposal review process.

The proposal should identify approximate dates for meetings with the project team City Council, consultation sessions, and submission of draft and final reports.

PROGRESS REPORTS

The successful consulting team will be expected to provide a monthly report which will advise:

- (a) The status of the work in progress.
- (b) Recommendation for any changes to the scope of work;
- (c) Monthly statements in the format of the attached Progress Payment Statement.
- (d) Any other relevant information regarding the status of the project, including the budget, scope and schedule.



PAYMENTS

Each invoice will show an itemized list of services and costs incurred for each of the tasks outlined in the SCOPE OF WORK. In addition to an itemized invoice, each invoice submitted by the Consultant will clearly indicate:

- The total amount of services and disbursements and total for each task.
- The total to date for each task.
- The total payable for this invoice.

PROJECT MANAGEMENT

The contract will be held by the City of New Westminster, and administered by its Engineering Operations Department. The consultant will work in close collaboration with staff from the City of New Westminster. The day to day project administration will be carried out by Kevin Thorpe, Fleet Services Supervisor.

PROPOSAL SELECTION

City staff will evaluate proposals using the following criteria:

- Understanding of, and ability to meet, project requirements
- Rigour of methodology
- Experience, reputation and resources
- Value for cost

The City will not be limited to the criteria referred to above, but all criteria considered will be applied evenly and fairly to all proposals.

The City of New Westminster reserves the right to invite proposals from other parties and to reject any or all proposals. The proposal offering the lowest cost or any proposal may not necessarily be accepted. The City is looking for a proposal offering best overall value.

INTERVIEWS

The evaluation team may, at its discretion, invite some or all of the proponents to appear before the evaluation team to provide clarifications of their proposals. In such event, the evaluation team will be entitled to consider the answers received in evaluating proposals.



APPENDIX A

DRAFT CONSULTING AND PROFESSIONAL SERVICES AGREEMENT

This Agreement made as of the ____ day of ____, 2013

BETWEEN: THE CORPORATION OF THE CITY OF NEW WESTMINSTER
(herein called the “City”)

OF THE FIRST PART

AND: “Consultant”
(herein called the “Consultant”)

OF THE SECOND PART

The City and the Consultant agree as follows:

ARTICLE 1 - ENGAGEMENT

- a) The City engages the Consultant and the Consultant agrees to perform Consulting Services (herein called the “Services”) and provide all qualified personnel, support services, reports, analysis and such other things required by the Terms of Reference attached hereto and proposal for _____, submitted to the City _____ (as the same may be amended from time to time by mutual agreement in writing) which form part of this Agreement.

The Consultant represents that he/she is professionally qualified and capable of performing the Services and shall at all times exercise the standards of care, skill and diligence normally provided by a professional specializing in the performance of the Services similar to those contemplated by this Agreement.

The Consultant will not act for any party whose interests are in conflict with those of the City, unless specific prior waiver of that term has been given in writing by the City in each instance.

The Consultant warrants that neither it nor any of its officers or directors, or any employee, has any financial or personal relationship or affiliation with any elected official or employee of the Corporation or their immediate families which might in any way be seen or perceived (in the Corporation’s sole and unfettered discretion) to create a conflict. If such any conflict of interest arises during this agreement the Consultant will immediately inform the City in writing.

ARTICLE 2 - DURATION AND TERMINATION

DURATION

- a) Services under this Agreement shall commence _____ and be completed in accordance with the schedule in the Terms of Reference, subject to further extension as agreed upon by the parties.



NEW WESTMINSTER

- b) Completion shall be when the City certifies in writing all requirements under this Agreement have been fulfilled to the satisfaction of the City.
- c) In the event additional services are required which do not fall within those described Terms of Reference then the completion date set forth above may, by mutual agreement, be extended by a period determined to be sufficient for such additional services. Additional services may be requested in writing by the City and payment therefore shall be agreed between the Consultant and the City prior to provision of same.
- d) Should the Consultant breach this agreement, either by abandonment, or by act or omission on his part contravening the terms of this Agreement then this Agreement shall terminate at the time of such abandonment or act or omission and the Consultant shall be paid only for Services performed up to the date of contravention.
- e) Acts or omissions by the Consultant which shall justify termination of this Agreement shall include but not be limited to the following:
 - i) neglect of duties;
 - ii) Non-compliance of this Agreement;
 - iii) Inability to perform the Services he represented himself as competent to perform;
 - iv) Any misrepresentation made or concealment of material fact for the purpose of securing this Agreement.

TERMINATION

The agreement may be terminated by the City as follows:

- (a) For Deficiency or Default - immediately by providing to the Consultant written notice of the deficiency or default after the Consultant has been given a reasonable opportunity to remedy said deficiency or default;
- (b) Without Cause - by providing the Notice in writing to (as agreed upon).

Upon termination of the agreement, the Consultant will be paid for all work performed up to the effective date of termination. All other obligations of the City to the Consultant will terminate upon the termination or expiry of the agreement.

ARTICLE 3 - NON-DISCLOSURE OF INFORMATION

The Consultant accepts that any information relating to the business affairs of the City is confidential and that any disclosure by him of any such information to unauthorized persons shall be reason for termination of this Agreement.

ARTICLE 4 OWNERSHIP OF CONTRACT DOCUMENTS AND FREEDOM OF INFORMATION

All documents submitted to the City of New Westminster become the property of the City, and as such, Consultants are advised that parts, or all, of this contract and documents legally connected to this contract may be subject to the provisions of British Columbia's *Freedom of Information and Protection of Privacy (FIPP) and Community Charter*. Consultants who wish to ensure particular parts of this contract are protected from disclosure under the FIPP Act should specifically identify any information or records forming part of the contract that constitute (1) trade secrets, (2) that are supplied in confidence, and (3) the release of which could significantly harm their competitive position. Information that does



not meet all three of the foregoing categories may be subject to disclosure to third parties. Please refer to the Freedom of Information and Protection of Privacy Act for further information.

ARTICLE 5 - COMPLIANCE WITH APPLICABLE LAWS

The consultant is required to build the apparatus to comply with all CMVSS, Canada Transport Regulations, WCB standards, Hydraulic institute standards, applicable SAR standards and codes.

The Consultant shall be responsible for giving all notices and complying with all laws, ordinances, rules, regulations, codes and standard relating to the conduct of the Services and the locations to which the Services are to be performed. The Consultant shall indemnify the City and hold it harmless from and against any claim, penalty, losses, damages or expenses which might be made, imposed, suffered, or incurred by reason of an asserted or established violation of any such laws, ordinances, rules, regulations, codes or standards.

The Consultant will register for, obtain and maintain their own separate WorkSafeBC Insurance Coverage, when required by WorkSafeBC and the Workers Compensation Act. Most employers are required by law to register their firm with WorkSafeBC and pay premiums; however, there are some exemptions to registration and there are situations where registration is optional (i.e. Personal Optional Protection and voluntary coverage). When WorkSafeBC Insurance coverage is required, the Consultant will prove to the City they are registered with WorkSafeBC and are up to date on their premiums by providing a WorkSafeBC Clearance letter to the City before the Consultant starts work for the City and again before the City makes final payment to the Consultant.

The Consultant will comply with the WorkSafeBC Occupational Health and Safety Regulation and the Workers' Compensation (WC) Act. Any WorkSafeBC violation by the Consultant may be considered a breach of contract resulting in possible termination or suspension of the contract and/or any other actions deemed appropriate at the discretion of the City. Any penalties, sanctions or additional costs levied against the City, as a result of the actions of the Consultant are the responsibility of the Consultant.

For information on who is required to register and who is exempt from registering for WorkSafeBC Insurance Coverage and/or more information on Personal Optional Protection, go to the WorkSafeBC website (www.worksafebc.com).

ARTICLE 6 - PATENT RIGHTS AND ROYALTIES

The Consultant shall save harmless and indemnify the City from and against all claims and proceedings for or in account of infringement or any patent, design right, trademark or name or other protected rights in respect of any practice or process in respect of the Services to be performed.



NEW WESTMINSTER

ARTICLE 7 - ADVERTISING AND PUBLICITY

All proposed advertising or publicity by the Consultant referring to the City or performance of the Services shall be submitted to the City for written approval prior to issue.

ARTICLE 8 - RELATIONSHIP

It is expressly agreed, represented and understood that the parties have entered into an arm's length independent contract for the rendering of the above-mentioned Services and that the Consultant is not an employee, agent or servant, of the City. Further, this Agreement shall not be deemed to constitute or create any partnership, joint venture, master-servant, employer-employee, principal-agent or any other relationship apart from an independent contractor status providing an independent service for which the City will be invoiced according to the terms and conditions of this Agreement.

The manner and means by which the Consultant conducts its work in order to provide the Services contemplated by this Agreement are under its control.

ARTICLE 9 - FEES

In consideration of the performance of the Services, the City shall pay the Consultant monies determined by the rates provided in the proposal and the limits found in the Terms of Reference not to be exceeded without the prior written consent of the City:

The City retains the right to access and audit the Consultant's files and records related to the City's business with 24 hours notice during normal business hours.

ARTICLE 10 - APPLICATION FOR PAYMENT

Application for payment in respect of lump sum items may be made by the Consultant in writing as the Services proceed. Applications may be made monthly up to the last day of the monthly payment period for the value of Services performed to that date including expenses (if any) properly incurred during the performance of the Services and any approved additional services.

The Consultant agrees to remit and shall be responsible for all withholding taxes, income taxes, Canada Pension Plan contributions, Employment Insurance deductions, and any other deductions required by the applicable provincial or federal statutes for the Consultant and any of its employees.

The Consultant must also obtain and maintain its own separate Worker's Compensation Coverage and abide by all provisions of the Worker's Compensation Act and Regulations. A letter of good standing from the Worker's Compensation Board must be provided to the City prior to commencement of the work.

Application for payment in respect of hourly items may be made by the Consultant as described above providing such applications shall be accompanied by the appropriate time sheets for verification by the City.

Payment will be made by the City to the Consultant within thirty (30) days of receipt of Consultants application for payment subject only to an amount which may be withheld, on written notice to the Consultant, to protect the City from any actual or anticipated loss, damage, cost or expense arising from one or more of the following:

- i) the Consultant not making satisfactory progress in the opinion of the City;



- ii) deficiencies and errors in design, reporting, analysis or similar which have not been corrected or remedied; and
- iii) any other breach described in this Agreement under ARTICLES 2, 3, 4 AND 5.

ARTICLE 11 – INSURANCE

The Consultant, insofar as is legally permissible, indemnify and hold harmless the City, its officers and employees, from any and all liability arising out of the Consultant's performance or non-performance of the terms of the contract or out of the provision of the Services generally.

ARTICLE 12 - ASSIGNMENTS

This Agreement may not be assigned by the Consultant, or to its successor (s) without the express written consent of the City.

ARTICLE 13 – ENGAGEMENT OF OTHER CONSULTANTS

The City in any event reserves the right at its own discretion to engage any consultant, other than that with which it reaches an agreement(s), during the term of such an agreement(s), if it is deemed advantageous or appropriate.

ARTICLE 14 – OWNERSHIP AND COPYRIGHT

Any documents or products produced by the Consultant for the benefit of the City as a result of the provision of the Services may be used by the City in any manner as part of its operations at its own risk if the City chooses to use them in any manner other than for the particular purpose for which they were provided.

The City is to receive all document, model and data files related to this project and will become the property of the City for its use.

No term of this Agreement shall be deemed to have been waived by a party unless written waiver from the other party has been first obtained, and no condoning, excusing or overlooking of any default on previous occasions, or any earlier written waiver shall operate as a waiver in respect of a subsequent default.

This Agreement is the whole of the Agreement between the parties and sets forth all the warranties, representations, covenants, promises, terms and conditions between the parties and there is no other written or oral express or implied terms, conditions, warranties, representations or promises not reduced to writing and set out in this Agreement.



NEW WESTMINSTER

IN WITNESS WHEREOF the parties hereto have caused their respective seals to be affixed as of the day and year first above written

**THE AUTHORIZED SIGNATURES FOR
THE CORPORATION OF THE CITY OF
NEW WESTMINSTER:**

Purchasing Manager:)
)
)
)
)

Engineering Department Representative

Accepted and Agreed on
_____, 20__ By

CORPORATE NAME)
)
)

Vendor)
)
)

Authorized Signature)
)

Name and Office



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APPENDIX B

The following list is features that the City of New Westminster Horticulture Department has ordered on the chassis and features and ideas that the department would like to see incorporated into the design of the apparatus. The Manufacturer is also invited to highlight features, accessories, and details that surpass beyond the scope listed in this Performance Based Apparatus Proposal.

FLUID CAPACITY PLATE

A permanently mounted plate shall be installed. It shall identify the quantity and type of the following fluids used in the vehicle:

| | |
|---------------------------------|--|
| Engine Oil | Power Steering Fluid |
| Engine Coolant | Chassis Transmission Fluid |
| Drive Axle(s) lubrication Fluid | Front tire pressure cold |
| Pump Transmission Fluid | Rear tire pressure cold |
| Pump Primer Fluid | Air Compressor system lubricant |
| Air Conditioning Lubrication | Generator system lubricant (if applicable) |
| Air Conditioning Refrigerant | Hydraulic Fluid |

ELECTRICAL WIRING-BODY

A Multiplexed wiring harness shall be provided for all electrical circuits of the body. All body wiring shall be number and color coded for ease of identification. Electrical connectors shall be of the crimp type. The wiring shall be permanently color coded to identify wire function. Wires shall be permanently heat ink embossed with both number and function codes. The function codes shall be the "descriptive" name of the circuit served. The number code shall be the exact purpose of that circuit. This number code shall be completely referenced in a detailed wiring schematic provided with the vehicle.

ELECTRICAL WIRING and DIAGRAMS

Two (2) complete as built wiring diagrams of the apparatus body and how it is tied to the chassis and all added components will be supplied to the fleet department. Wiring shall be color coded and function labeled on every wire. Supply all details of switches, breakers, panel box, etc. All wiring shall be incased in loom to protect the wiring from damage.

12V ELECTRICAL SYSTEM AND COMPONENTS

The electrical system shall be equipped with, but not limited to the following. Batteries, generating, starting, lighting, ignition, visual and audible warning systems, specified electronic equipment and devices including switch controls located in the cab, the bucket and on the upper control panel (if available) as specified as well as other specified accessory wiring. The electrical system and its equipment shall comply with all applicable FMVSS requirements, including Federal Motor Carrier Safety Regulations (FMCSR) and shall also conform to all the applicable SAE recommended standards



NEW WESTMINSTER

and practices, whether or not specifically referenced in this document while complying with the subparagraphs herein. All electrical and electronic components shall be selected to minimize electrical loads. All electrical system components and wiring shall be readily accessible through access panels for checking and maintenance. All switches, indicators, and consoles shall be located and installed in a manner that facilitates easy removal and servicing. All exterior housings of lamps, electronic devices, and fixtures shall be corrosion resistant and weatherproofed.

The body power distribution shall be accomplished by using a solid state power control unit. These units shall be solid-state and not employ electromechanical relays, breakers, solenoids or other internal components that wear or reduce the body's electrical service life. These power distribution units shall provide multiple control and management of the electrical power provided by the chassis electrical system and assist in the critical maintenance of vehicle batteries. Power distribution units shall be positioned in the vehicle to minimize the length of wire runs to the devices they control. They shall be installed in the body bulkhead areas and not be exposed to weather or shifting equipment. Easily removal access panels shall be provided for service access.

The electrical system shall provide multiple switching and interlocks to turn on outputs from two or three switch locations making control of specific devices more operationally efficient. Multiple devices shall be controlled ON or OFF with a single switching function.

The system shall have the capability to shed extraneous electrical loads from any power distribution units output at eight (8) different voltage levels. This feature shall provide micro-management of necessary electrical loads during acute or transitory electrical system failures. This shall allow the vehicle to perform even though there are service issues to attend to.

The system shall have the capability to flash any node output in either A or B phase. This means that any light on the vehicle can be programmed to flash without the use of additional flashers or relays. The flash rate shall be eighty (80) flashes per minute with no more than two-tenths (.20v) volts drop through the node. The durability of this system shall equate to one hundred (100) times the durability of a conventional relay-type system.

The system shall be designed to survive extreme temperature conditions from -40F to +185F. The system shall be sealed against environmental conditions of moisture, salt and fluids and shall be protected against over voltage and reverse polarity conditions.

Troubleshooting and service shall be accomplished by attaching a PC Diagnostics interface and viewing the messages across the communications node on a laptop computer. Each node shall be capable of being queried for voltage levels and indicate where in the system a voltage drop has occurred. Status of all inputs and outputs shall be determined through the PC interface.

The wiring shall be permanently color coded to identify wire function. Wires shall be permanently heat ink embossed with both number and function codes. The function codes shall be the "descriptive" name of the circuit served. The number code shall be the exact purpose of that circuit. This number code shall be completely referenced in a detailed wiring schematic provided with the vehicle.

Wiring installed in the manufacturing process shall be routed in conduit or high temperature loom with a rating of 300 degrees Fahrenheit where necessary to protect it. All added wiring shall be located in accessible, enclosed, and protected locations. All conduits, looms, and wiring shall be secured to the



body cable straps in order to prevent sagging and movement resulting in chafing, pinching, snagging, or any other damage. These cable straps shall be secured to “welded” stud provided as required throughout the harness run to provide security. All apertures on the vehicle shall have grommets and be properly sealed for passing wiring and conform to SAE 1292. All items used for protecting or securing the wiring shall be appropriate for the specific application and be standard automotive, aircraft, marine or electronic hardware.

The body wiring shall be provided with “centralized” ground points. These shall be easily accessible for service. These centralized ground points shall utilize solid connection studs for reliability. The wiring harness shall incorporate a master ground wire to connect to these grounding studs. The internal connections for the ground wires where they feed into this master ground wire shall be an ultrasonic connection. Where they connect to the ground stud the connection shall be a machine crimped, epoxy sealed ring terminal.

Wiring connections from the wiring harnesses to various components or electrical assemblies shall be made through the use of either machine crimped, epoxy sealed ring terminals or self-sealing Deutsch connectors. The use of “Scotch-Lock” fasteners is NOT ACCEPTABLE.

DIAGNOSTIC INTERFACE CONNECTOR

The chassis shall be supplied with a vehicle diagnostics wiring interface under the cab dash. The diagnostic cable and attachments shall be supplied by the vendor.

APPARATUS INFORMATION DISPLAY

This display provides critical apparatus information including the apparatus manufacturer, apparatus sales order number, Vehicle Identification Number, Model Number, GVWR and Payload, Date of Manufacturer, chassis fluid capacities and specifications plus the contact phone number for the apparatus manufacture.

DIAGNOSTICS DISPLAYS

There will be a diagnostic display allowing the multiplexed electrical system to display and monitor critical information and issue warnings for systems that are nearing extremes in their working envelope, examples of this would be high coolant temperature, low oil pressure, low voltage etc.



MULTIPLEXING SYSTEM

Make: _____ **Model and Year:** _____

| Spec. # | Description | Required by Corporation | State Yes if you conform, State No with detail |
|---------|-------------------------------|--|--|
| | Year | Current production model year Cab and Chassis model | State |
| | Wheelbase and G.V.W.R. | 210"-220" approximate wheel base. 66,000lbs (30,000kgs) approximate GVWR Cab to Axle 140" approximately Truck and body manufacturers to ensure chassis meets all requirements for mounting 16.5' dump box, hydraulic plumbing, 10' under body plow, hoist, tailgate high lift and existing City of New Westminster sander. | State |
| | Frame | Double rail "C" channel reinforced full length with 3800000 in-lbs maximum (RBM) resisting bending moment, 120,000ksi for GVW rating of 66,000lbs. 1/4" C-Channel inner frame reinforcement. (2) Two frame mounted front tow hooks shall be provided. Standard weight engine cross member, mid-ship cross members and rearmost cross member. Heavy duty rear suspension cross members. Back of frame flush with rearmost tires include tow apron but no trailer hitch or wiring. Rear frame overhang range 70" – 80". 12"-14" front bumper with license bracket. Chassis to have a corrosion resistant primer then painted black. | State |
| | Transmission | Automatic Allison 4500 RDS 6 speed transmission or equivalent with auto neutral, constant drive PTO provisions (Parker or Muncie) and prognostics (prefer Muncie hot shift). Push button shifter pad. Standard Ratio for engine and transmission specified and for mountainous terrain. Must use synthetic transmission fluid "Transynd". Must be able to maintain 110km/hr on highway. Frame mounted H/D water / oil transmission cooler. | State: |



NEW WESTMINSTER

| Spec. # | Description | Required by Corporation | State Yes if you conform, State No with detail |
|---------|---|--|--|
| | <p>Engine</p> <p>2010 EPA Carb NOX and particulates</p> | <p>The City of New Westminster is committed to reducing “greenhouse gases” and exhaust emissions. Therefore engine and transmission selection will take into account the following:</p> <p>Fuel consumption rating: CO₂ emissions & idle CO₂ emissions in % of exhaust gas flow: NMH (non-methane hydrocarbons) plus NOX: Must meet or exceed 2010 EPA/CARB/GHG14 certification without the use of carbon credits. Tier 4 diesel emissions if possible. Must meet or exceed all current emission standards for clean idle. Diesel Powered Turbo-charged min. 400 HP 1400ft/lb torque. Preferably Cummins, Detroit or Cat engines. Must be able to ascend an eight percent grade at 50km/hr with full load. Automatic on-road regen and dash mount regen request switch. If necessary mounting of exhaust after treatment system horizontally under cab preferred, with right side exhaust stack vertical discharge. DPF, muffler, pipes and shields shall all be stainless steel construction if possible. Minimum 20L (100% fill) D.E.F. tank mounted on left side behind cab if required. Electronic engine integral shutdown protection system. Fuel Water Separator, with change indicator, and water in fuel sensor, preferably “Racor” style. Must be equipped with either a engine compression brake (Jake brake), multi-position exhaust brake or a transmission retarder. Remote air filter with restriction gauge indicator on dash. Electric switched engine cooling fan. Magnetic drain plugs, for oil pan, tranny and differentials. Block heater if available. Requires engine hour meter</p> | <p>State</p> |
| | <p>Cooling System</p> | <p>Heavy-duty Cooling, c/w permanent type antifreeze to -35o. Heavy-duty aluminum radiator min 1000sq/in with surge tank all silicone hoses and constant tension hose clamps. Radiator drain valve.</p> | <p>State</p> |



NEW WESTMINSTER

| Spec. # | Description | Required by Corporation | State Yes if you conform, State No with detail |
|---------|-------------------------------------|--|---|
| | Steering | H/D power assisted L/H drive requires dual power steering gears. Power steering with smallest possible turning radius Prefer set back front axle "I" beam design. Min 4L power steering reservoir. Oil / air power steering cooler. Grease fittings on all tie rods, drag links and kingpins. | State: State: |
| | Air Brakes | Meritor or Wabco air brake system with Anti-lock braking capacity. Full air brake "S" cam type (Q-plus) with double anchor, backing plates, auto slack adjusters with brake stroke indicators. Front Brakes 16.5" X 6". Non-asbestos brake linings. Rear brakes 16.5" X 7". Non-asbestos brake linings. Air Compressor min 18.7 CFM capacity with safety valve. Discharge line, Teflon hose with stainless steel braid to air dryer. Dash mounted Yellow park brake control knob. 2 rear long stroke rear wheel parking brake chambers. Equipped with spin-on air dryer "Bendix / Wabco or equivalent with heater and drain valve, frame mounted and easily accessible. Must have an easily accessible air drain manifold both tanks will be routed to the manifold. All drains to be ball valve "petcock" style to be drained nightly. Airlines to be "synflex" or equivalent nylon type tubing, color coded for ease of serviceability, and securely routed. Must meet SAE J-1402 specs at articulation points. | State: State optional brake rotor and pad design if available. |
| | Differentials and Suspension | Front flat-leaf springs and drop single front axle as required for GVWR approx 20,000lbs. Vented front hub caps with window, center and side plugs for oil hubs preferably Stemco. Rear-H/D springs as required for GVWR approx 46,000lbs. Pre-set bearing iron front and rear hubs. Shock Absorbers-H/D front and rear; Driver controlled both rear traction differentials. (1) Inter-axle lock valve, (1) Driver controlled diff-lock forward rear axle valve, and (1) Rear-rear axle valve. Indicator lights for each inter-axle lock-out switch. Dual rear axle temperature gages in dash. Synthetic rear axle fluid. Must be equipped fore / aft torque rods. | State: State axle ratio: |



NEW WESTMINSTER

| Spec. # | Description | Required by Corporation | State Yes if you conform, State No with detail |
|---------|---|---|---|
| | Wheels/Tires | Wheels: Aluminum rim design 22.5" X 12.25" fronts, Steel rim design 22.5" X 8.25" rears. Hub piloted Wheel guards on rear are required, "nylon gasket" Tires: Rear 11R22.5 min 14ply. Fronts 425/65 R22.5 20ply. Manufacturer recommended for application | State front tire options for max weight capacity: |
| | Alternator Starter and Batteries | Alternator brushless – 12V, 160 AMP Minimum. Starter 12v with thermal over-crank protection. Three (3) glass mat group 31, 12v maintenance free threaded stud batteries minimum 2,750 CCA. Batteries shall be connected in parallel using a bus bar system rather than cables. Manual battery switch or night switch located L/S. Batteries to be located under passenger seat with plastic battery cover and vented to the outside or behind cab conveniently located for service. Wire ground return for battery cables with additional frame ground return. Standard battery jumper start studs located near starter. | State: |
| | Hydraulic and Sander System | To be equipped with SSC6100 MPJC3 Can electronic control system with 7" LCD, from Drive Products. Controller to be arm rest style with 3 miniature joysticks. Request Muncie PTO with Parker/Muncie/or Hydro-Leduc load sense piston pump must provide sufficient G.P.M. and pressure to run hoist, high lift tail gate, sander with pre-wet and belly plow. Valves shall be Force add-a-fold 4020 valves with enclosure to control all hydraulic functions. Unit to be plumbed to allow all operations from the cab either centrally mounted between seats or on center arm rest joystick style. To include air operated tarp and tailgate locks. All hydraulic pipes to be stainless steel if possible, securely mounted to avoid chaffing. All hydraulic hoses to be color coded, protectively wrapped and securely mounted to avoid chaffing. To include approx 35gal hydraulic tank with sight level gage, suction screen and in tank return filter. | State: |



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| Spec. # | Description | Required by Corporation | State Yes if you conform, State No with detail |
|---------|---|--|--|
| | <p>Lights wiring and accessories</p> | <p>Exterior – must meet Federal and Provincial Motor Vehicle regulations. Must be equipped with daytime running lights, fog lamps, and five (5) roof mounted clearance lights. Rear brake, turn and marker lights to be integral to dump box include one each front of box side markers. Additional set of brake, turn, park and back-up lights to be installed under rear of dump box. All lighting to be LED “exclude headlamps and fog lamps”. Require-self canceling turn signals & 4 way hazard lights, preferably integral to one switch for headlights, turn signals, hazards and wipers. Dome-light in cab Require two fully rotational amber strobe lamps, mounted on cab protecting box extension. Cab marker light switch with separate headlight switch. All wiring to be color coded or circuit number identifiable. All wiring to be bundled in protective loom or conduit, conveniently routed inside frame rails and gussets. All clamps to be rubber-lined. All exterior connectors to be weather-packed seal design. Electrical sander control wiring to be located left side behind cab, must not extend to rear of box. Manufacturer to supply two (2) sets of complete wiring schematics and body builder extension schematics for both electrical and hydraulic systems. Electrical panel to be conveniently located inside cab using resettable circuit breakers and blade style fuses where necessary. All added electrical circuits must be either soldered and heat shrunk or crimped and heat shrunk, no exceptions. No scotch-lock type connectors will be accepted.</p> | <p>State:</p> |



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| Spec. # | Description | Required by Corporation | State Yes if you conform, State No with detail |
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| | Cab cont. | <p>Five (5) complete sets of keys. Matched ignition to door lock.</p> <p>Installation of 2-way radio “radio to be provided by City of New Westminster”.</p> <p>Cruise control system.</p> <p>Storage in doors and overhead.</p> <p>Cab steps shall be offset with non-slip grips and protected with powder coated paint.</p> <p>Dual roof mounted air horns with shields. Dual electric horns.</p> <p>Lower right side door window with Fresnel lens.</p> <p>Forward roof mounted console, and right side glove box in dash.</p> <p>Grey or black interior color.</p> <p>Two cup holders.</p> <p>Back lit switches.</p> <p>Vinyl floor mats.</p> <p>AM/FM/CD radio with Bluetooth capability.</p> <p>One 300L approx. aluminum fuel tank mounted to clear under body plow in full up position. All fuel lines to be metal wire braided, no plastic lines. Fuel tank to be full on delivery.</p> <p>Four (4) additional in-cab switches for future add-ons with 20AMP protected circuits.</p> <p>Coat hooks on interior rear wall of cab.</p> <p>Power windows and/or manual door locks.</p> <p>Include wiring for body builder installation of PTO controls.</p> <p>Must have full size rear cab window.</p> | State: |



NEW WESTMINSTER

| Spec. # | Description | Required by Corporation | State Yes if you conform, State No with detail |
|---------|--------------------------------------|--|---|
| | <p>Rear Body and Dump Box</p> | <p>15-16 yard capacity, 16.5' approx length, 7'6" approx width, 36" approx height. High Tensile Steel construction min 10ga with sloped sides approx 3"-5". Minimum 1/4" Hardox 450 steel or equivalent floor. 3" channel cross members on 14"-16" centers. 3/4" Plywood lined sides and 10" upper wooden side boards.</p> <p>Side steps min (2) at front of exterior box both sides. Complete walking rail along both sides exterior. Heavy duty grease able rear box hinges. Rear back-up alarm Must have anti-sail heavy duty mud flaps mounted ahead and behind drive axles. Box safety brace and storage rest. Two (2) wheel chokes and holders. Two (2) fork style shovel holders mounted to front of box. One (1) aluminum tool box approx 18" X 18" X 24" mounted L/S under box behind plow. Audible alarm to indicate box not fully down. Approximate 30" cab protector to extend forward of bulkhead and sloped back to box.</p> <p>25-30ton nitrated telescopic trunnion outside mounted "A" frame lift cylinder with automatic shut-off.</p> <p>Air activated tarp control with rods to fully cover box load. To include mesh full length tarp.</p> <p>Hydraulically controlled high lift tailgate. High Tensile steel removable tailgate min 10ga approx 45" high with three (3) vertical sliding access panels for controlled flow or shovel access, approx 16"-18" wide. Must be flush to floor openings. Air controlled tailgate locks with grease fittings and pinned lock-outs. Removable 2" solid bar tailgate pivots with locking pins. Welded on center lifting eye for ease of removal.</p> <p>10' non-articulating (fixed) under belly plow, approx (30o) degree angle with 8'2" – 8'8" sweep. Hydraulically operated from cab with approx 500p.s.i. down pressure. No cutting edges, uses 2" thick by 10"-12" rubber plow strip. Must be removable.</p> <p>Additional hydraulic lines and quick couplers to be installed at right rear corner of the box for sander operation controlled in cab. Two (2) pressure & two (2) return to work with City's existing sander and Force system system controls. system controls.</p> <p>To include aluminum checker plate tool box approx. 18" X 18" X 24" mounted under box on L/S.</p> | <p>State:</p> <p>State:</p> <p>State:</p> <p>State:</p> <p>State:</p> <p>State:</p> <p>State:</p> |



NEW WESTMINSTER

| Spec. # | Description | Required by Corporation | State Yes if you conform, State No with detail |
|---------|--------------------------------|--|--|
| | Color | Cab: White with clear coat Box: Silver or Grey sandblasted, primed and plastic coated paint Frame: Black. | State: |
| | Drawings | Full dimensional drawings showing construction and materials used in the body. | State: |
| | Maintenance and Manuals | Complete list of filters, belts, fluids, lighting etc. Complete list of make and model for Pumps, PTO, Air Compressor, Air Dryer, Alternator, Starter, Steering Gear, Slack Adjusters etc. One complete set of repair, service, owners and parts manuals on CD, DVD or paper. Two Complete sets of electrical and hydraulic schematics. | State: |
| | Warranty | List all available warranties and any extendable warranty options. The City of New Westminster shall be authorized to make minor emergency warranty repairs without pre-authorization and shall be reimbursed by the bidder for parts and labor, not to exceed \$250.00 per incident. | State: State: |
| | V-Mux | As stated earlier if fully multiplexed controlled system Vendor to supply communication cables and all accessories and diagnostics. | State: Make and model |
| | Demonstration | Could a demo be arranged? | State: |
| | Options | Not To be included in price Rear back-up camera system with in-cab display. Extra front aluminum rim. Fiberglass external sun visor. Rear air ride suspension. Rear scale system if available without air ride. Engine Transmission and ABS software with all cables required to hook up to Laptop for diagnosis. | |
| | Trade-in | 2000 Sterling tandem dump truck approx 180,000KM & 9800 hours | |
| | Delivery | F.O.B. City Garage, 901 First Street, New Westminster, BC V3L 2J1 | |