

FORM N: DETAILED SPECIFICATIONS 21002

CUMMINS REMANUFACTURED DIESEL ENGINES FOR E-ONE FIRE APPARATUS TRUCKS

1.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 1.1 All items in these specifications should be answered indicating compliance or non-compliance.
- 1.2 **Proponents shall state “yes” for compliance or state “deviation”**, or give a reply where requested to do so. Deviations and/or equivalents shall be clearly stated and fully detailed. Deviations and/or equivalents will be considered subject to evaluation. In every instance where a brand name or design specifications is used, the City will also consider deviations and/or equivalents.
- 1.3 Lengthy explanations of deviations may be included in a separate document and must reference the appropriate Detailed Specification.
- 1.4 Each Proponent is required to fill in every blank. Failure to do so may be used as a basis for rejection of bid.
- 1.5 It will be the responsibility of the Proponent to inform the City of any errors or omissions in these Detailed Specifications, for under this Contract, the Contractor shall be held responsible to ensure that the manufacturer will be responsible for the design, performance, reliability and satisfactory operational function of the unit.

2.0 DESCRIPTION OF EQUIPMENT

- 2.1 These specifications describe **Cummins Remanufactured Diesel Engines** and other equipment and features as specified herein for six (6) 2008 E-One Typhoon fire apparatus that require engine replacements. The successful bidder is responsible for ensuring all engine requirements meet E-One engine standards and all applicable Canadian Safety Standards and (NFPA 1901) National Fire Protection Association Standard latest revisions.
- 2.2 The describe **Cummins Remanufactured Diesel Engines** and all other items/components shall be the manufacturer's latest model. The equipment shall be furnished complete and ready for operation. Any parts or accessories not specifically mentioned, but which are required to complete and place the equipment and associated attachments in successful operation shall be furnished as though specifically mentioned in these specifications. The equipment and associated attachments, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 2.3 Proponents are encouraged to view a 2008 E-One Typhoon fire apparatus prior to submitting a bid. To make an appointment to view the units, contact the Contract Administrator in D4.
- 2.4 The ratings specified herein merely state the minimum values acceptable to the City, not implying that those values are sufficient for the design of the particular equipment being bid.

3.0 OTHER SPECIFICATIONS AND STANDARDS

- 3.1 All applicable SAE Standards form an integral part of the vehicle specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 3.2 **Cummins Remanufactured Diesel Engines** shall comply with the applicable regulations:

Transport Canada, National Safety Mark, NSM: <http://www.tc.gc.ca/eng/acts-regulations/acts-road.htm>

Manitoba Safety and Health Regulation, Parts 12, 16, 22: <https://web2.gov.mb.ca/laws/statutes/ccsm/w210e.php>

Canadian Motor Vehicle Safety Standards C.M.V.S.S. http://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1038/section-sched3.html

Manitoba Highway Traffic Act regulations and requirements including, but not limited to, a Manitoba Government Inspection with Safety Sticker. <http://web2.gov.mb.ca/laws/regs/index.php?act=h60>

Canadian Standards Association, CSA: <http://www.csagroup.org/>

Under Writers of Canada, U/L: <http://www.ulc.ca/>

Society of Automotive Engineers, SAE: <http://www.sae.org/>

City of Winnipeg Lighting Visibility Standard: <http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf>

Manitoba Building Code: <https://web2.gov.mb.ca/laws/regs/current/pdf-regs.php?reg=31/2011>

- 3.3 All welding and welding designs of the load supporting elements shall conform to the requirements of the Canadian Standards Association Standard (CSA) W47.1-03 and W59-03.
- 3.4 The completed unit shall include a Manitoba Government Inspection with Safety Sticker on the driver's side window.
- 3.5 The completed vehicle shall be complete with a National Safety Mark, NSM.
- 3.6 State NSM Number: _____

4.0 SERVICE FACILITY

- 4.1 For the purpose of warranty repairs, the Bidder shall have an authorized service facility located within 10 km of the boundaries of the City of Winnipeg. The facility, or a portion thereof, shall be dedicated to the service and maintenance of the type equipment being offered. Further to 9.1, Bidders shall provide a description of the service facility including, but not limited to, number of qualified service staff, years of service experience, and general service capabilities within three (3) Business Days upon request of the Contract Administrator.

5.0 PERFORMANCE RELIABILITY

- 5.1 The responsibility for **Cummins Remanufactured Diesel Engine for E-One Fire Apparatus**, its performance and reliability shall rest upon the Contractor.
- 5.2 The term "repeated failures" as used herein is defined to mean that the same component, subassembly, or assembly develops repeated defects, breakdowns and/or malfunctions rendering the vehicle inoperative, or requiring repeated shop correction, service and/or replacement during the warranty period applicable for said component, subassembly, or assembly. Minor items or ordinary service adjustments are not included, or considered under the scope of "repeated failures", as well as other factors, such as operational damage due to accidents, misuse or lack of proper maintenance, service and lubrication attention by not following the manufacturer's preventative maintenance schedule.
- 5.3 The equipment shall be capable of consistent top performance in City of Winnipeg Environment. Note: The City of Winnipeg has four seasons with ambient temperatures ranging from approximately 90°F (32°C) to -40°F (-40°C).

6.0 QUALIFICATIONS OF CONTRACTOR

- 6.1 The Contractor of the **Cummins Remanufactured Diesel Engine for E-One Fire Apparatus** and all associated equipment shall have experience supplying Direct Fit Cummins Remanufactured Diesel Engine for E-One Fire Apparatus.
- 6.2 The success bidder shall have in effect a documented quality control program ensuring that the quality of materials and workmanship, including welding, conforms to the best standards and engineering practice of the industry.
- 6.3 The Contractor shall have experience servicing, repairing and maintaining **Cummins Remanufactured Diesel Engine for E-One Fire Apparatus** of the type being offered.

7.0 **SCOPE OF WORK: CUMMINS REMANUFACTURED DIESEL ENGINES**

7.1 The work consisting of Cummins Remanufactured Diesel Engines shall be supplied for the following vehicles: _____

2008 E-One Typhoon Fire Apparatus Trucks

Note: all trucks listed below are equipped with Cummins ISC 8.3 (330HP) 6-cylinder diesel engines

Unit number	Designation	VIN#	Cummins Engine Serial #
8239979	E9	4ENRAAA8481003942	46875482 CPL2085
8239975	E10	4ENRAAA8981003936	46873327 CPL2085
8239974	E14	4ENRAAA8781003935	46875543 CPL2085
8239978	E15	4ENRAAA8281003941	46875499 CPL2085
8239981	E20	4ENRAAA8X81004402	46875507 CPL2085
8239880	E16	4ENRAAA8581003934	46875055 CPL2085

Cummins Remanufactured Diesel Engines

7.2 Remanufactured engines shall be a **genuine Cummins ReCon® ISC 8.3 (360HP) Diesel replacement engine** to the exact engine serial number specifications listed above. The engine comes complete and ready to be installed in the fire apparatus and does not require any conversions/alterations. The engine shall come with an upgraded HP rating of 360HP. _____

7.3 **Note:** Removal of the existing diesel engine and installation of the remanufactured diesel engine for the fire apparatus trucks will be performed by the City's Emergency Mechanical Services Branch. **The Contractor is responsible for the engine core charge. The engine core will be returned to the Contractor when it is removed from the fire apparatus truck.** _____

7.4 **Parts List for Diesel Particulate Filter (DPF) System:** The following parts are to be included with the Recon diesel engines. **Note: brand new genuine Cummins parts only.**

- 7.5 Air Compressor P/N 5301094RX _____
- 7.6 Four (4) Clamps P/N 102068011098 _____
- 7.7 Two (2) Hoses P/N 4936622 _____
- 7.8 One (1) DPF KIT P/N 5579352 _____
- 7.9 One (1) Catalyst P/N 5287496 _____
- 7.10 Two (2) Sensors Temp P/N 4902912 _____
- 7.11 One (1) Sensors P/N 4954574 _____
- 7.12 One (1) Tube Sensor P/N 4965295 _____
- 7.13 One (1) Tube Sensor P/N 4965301 _____
- 7.14 One (1) Delta P Sensor P/N 4921730 _____
- 7.15 One (1) Gasket P/N 2866636 _____

- 7.16 Two (2) Rubber Tube P/N 4936622 _____
- 7.17 Four (4) Spring Clamp P/N 102068011098 _____
- 7.18 The remanufactured diesel engine shall meet all Canadian Safety Standards and NFPA 1901 standards applicable to this type of equipment. _____

8.0 **WARRANTY**

- 8.1 All warranty information be detailed and include all exclusions. The Contractor shall provide all published warranty information upon delivery of the equipment. Contractor shall **State:** all warranty information _____

9.0 **DELIVERY**

- 9.1 Delivery Point: The remanufactured engines shall be ready for installation and delivered F.O.B. with the freight prepaid, including invoice and N.I.V.S. (if applicable) to the **Winnipeg Fire Paramedic Service Training Academy 2546 McPhillips Street Winnipeg, Manitoba.** The Contractor shall be notified by the Contractor Administrator the delivery address prior to issuance of the purchase order _____
- 9.2 Delivery Time: Equipment shall be delivered between 8:00 am and 2:00 pm on Business Days. **State:** Earliest Delivery Date: _____
- 9.3 Delivery Contact: The Contractor shall contact the Contract Administrator prior to delivery of the equipment. _____
- 9.4 P.D.I: A pre-delivery inspection shall be performed by the Winnipeg Fire Paramedic Service on the Apparatus and equipment. _____