



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 883-2007

SUPPLY AND DELIVERY OF HANDHELD GPS

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 SUPPLY AND DELIVERY OF HANDHELD GPS

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, December 12, 2007

B2.2 Bids determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.

B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

B3. ENQUIRIES

B3.1 All enquiries shall be directed to the Contract Administrator identified in D3.1.

B3.2 If the Bidder finds errors, discrepancies or omissions in the Bid Opportunity, or is unsure of the meaning or intent of any provision therein, the Bidder shall promptly notify the Contract Administrator of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.

B3.3 If the Bidder is unsure of the meaning or intent of any provision therein, the Bidder should request clarification as to the meaning or intent prior to the Submission Deadline.

B3.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator to all Bidders by issuing an addendum.

B3.5 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator only to the Bidder who made the enquiry.

B3.6 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B3 unless that response or interpretation is provided by the Contract Administrator in writing.

B4. ADDENDA

B4.1 The Contract Administrator may, at any time prior to the Submission deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.

B4.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.

B4.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.

B4.2.2 The Bidder is responsible for ensuring that he has received all addenda and is advised to check the Materials Management Branch internet site for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.

B4.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B5. SUBSTITUTES

- B5.1 The Work is based on the materials, equipment, methods and products specified in the Bid Opportunity.
- B5.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B5.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least seven (7) Business Days prior to the Submission Deadline.
- B5.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the material, equipment, method or product as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the Contract;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the Contract.
- B5.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his sole discretion grant approval for the use of a substitute as an “approved equal” or as an “approved alternative”, or may refuse to grant approval of the substitute.
- B5.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.
- B5.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he wishes to inform.
- B5.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B5.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B13.
- B5.9 No later claim by the Contractor for an addition to the price(s) because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B6. BID SUBMISSION

- B6.1 The Bid shall consist of the following components:
- (a) Form A: Bid; and
 - (b) Form B: Prices;

- B6.2 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B6.3 The Bid Submission shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.
- B6.3.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.
- B6.4 Bidders are advised not to include any information/literature except as requested in accordance with B6.1.
- B6.5 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, may result in the Bid being determined to be non-responsive.
- B6.6 Bids submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B6.7 Bids shall be submitted to:
The City of Winnipeg
Corporate Finance Department
Materials Management Branch
185 King Street, Main Floor
Winnipeg MB R3B 1J1

B7. BID

- B7.1 The Bidder shall complete Form A: Bid, making all required entries.
- B7.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his own name, his name shall be inserted;
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
 - (d) if the Bidder is carrying on business under a name other than his own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B7.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B7.2.
- B7.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B7.4 Paragraph 10 of Form A: Bid shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his own name, it shall be signed by the Bidder;
 - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
 - (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed;

- (d) if the Bidder is carrying on business under a name other than his own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.

B7.4.1 The name and official capacity of all individuals signing Form A: Bid shall be printed below such signatures.

B7.4.2 All signatures should be witnessed, except where a corporate seal has been affixed.

B7.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B8. PRICES

B8.1 The Bidder shall state the lump sum price in Canadian funds for the Work on Form B: Prices.

B8.1.1 The price on Form B: Prices shall include:

- (a) duty;
- (b) freight and cartage;
- (c) Provincial and Federal taxes [except the Goods and Services Tax (GST) and Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable] and all charges governmental or otherwise paid;
- (d) profit and all compensation which shall be due to the Contractor for the Work and all risks and contingencies connected therewith.

B9. QUALIFICATION

B9.1 The Bidder shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Bidder does not carry on business in Manitoba, in the jurisdiction where the Bidder does carry on business; and
- (b) be financially capable of carrying out the terms of the Contract; and
- (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.

B9.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) be responsible and not be suspended, debarred or in default of any obligations to the City a list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.

B9.3 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B9.4 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B10. OPENING OF BIDS AND RELEASE OF INFORMATION

B10.1 Bids will not be opened publicly.

- B10.2 Following the Submission Deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements or evaluated prices) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>
- B10.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract Amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>
- B10.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B11. IRREVOCABLE BID

- B11.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.
- B11.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work for the time period specified in Paragraph 9 of Form A: Bid.

B12. WITHDRAWAL OF BIDS

- B12.1 A Bidder may withdraw his Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B12.1.1 Notwithstanding GC.7.05(2), the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.
- B12.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid, and only such person, has authority to give notice of withdrawal.
- B12.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
- (a) retain the Bid until after the Submission Deadline has elapsed;
 - (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid; and
 - (c) if the notice has been given by any one of the persons specified in B12.1.3(b), declare the Bid withdrawn.
- B12.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B11.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law, including the right to retain the Bidder's bid security.

B13. EVALUATION OF BIDS

- B13.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Bid Opportunity (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B8.1 (pass/fail);
 - (c) Total Bid Price;

- B13.2 Further to B13.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid Submission is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities if the interests of the City so require.
- B13.3 Further to B13.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid or in other information required to be submitted, that he is responsible and qualified.
- B13.4 Further to B13.1(c), the Total Bid Price shall be the lump sum price shown on Form B: Prices.
- B13.4.1 If there is any discrepancy between the lump sum price written in figures and the lump sum price written in words, the price written in words shall take precedence.
- B13.5 This Contract will be awarded as a whole.

B14. AWARD OF CONTRACT

- B14.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B14.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.
- B14.2.1 Without limiting the generality of B14.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
 - (b) the prices are materially in excess of the prices received for similar work in the past;
 - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
 - (d) only one Bid is received; or
 - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.
- B14.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid.
- B14.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his Bid upon written request to the Contract Administrator.
- B 14.4 Notwithstanding GC.3.01 and GC.3.02, the City will issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B14.5 The Contract Documents, as defined in GC.1.01(7), in their entirety shall be deemed to be incorporated in and to form a part of the Purchase Order notwithstanding that they are not necessarily attached to or accompany said Purchase Order.
- B14.4 The City expects to Award by December 14, 2007.

PART C - GENERAL CONDITIONS

C1. GENERAL CONDITIONS

C1.1 The *General Conditions for the Supply and Delivery of Goods* (Form 21: 88 03) are applicable to the Work of the Contract.

C1.1.1 The *General Conditions for the Supply and Delivery of Goods* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

- D1.1 In addition to the *General Conditions for the Supply and Delivery of Goods*, these Supplemental Conditions are applicable to the Work of the Contract.
- D1.2 The General Conditions are amended by striking out "The City of Winnipeg Act" wherever it appears in the General Conditions and substituting "The City of Winnipeg Charter".
- D1.3 The General Conditions are amended by striking out "Board of Commissioners" or "Commissioner" wherever it appears in the General Conditions and substituting the "Chief Administrative Officer".
- D1.4 The General Conditions are amended by striking out "Tender Package" wherever it appears in the General Conditions and substituting "Bid Opportunity".
- D1.5 The General Conditions are amended by striking out "Tender Submission" wherever it appears in the General Conditions and substituting "Bid Submission".
- D1.6 The General Conditions are amended by striking out "Bidding Instructions" wherever it appears in the General Conditions and substituting "Bidding Procedures".

D2. SCOPE OF WORK

- D2.1 The Work to be done under the Contract shall consist of supply and delivery of two (2) Trimble GEOXH Handheld GPS Unit.
- D2.2 When used in this Bid Opportunity:
- (a) "**Award Authority**" means the authority having the jurisdiction to award the Contract according to the City's by-laws, policies or procedures;
 - (b) "**Business Day**" means any Calendar Day, other than a Saturday, Sunday, or a Statutory or Civic Holiday;
 - (c) "**Submission Deadline**" and "**Time and Date Set for the Final Receipt of Bids**" mean the time and date set out in the Bidding Procedures for final receipt of Bids;
 - (d) "**GPS**" means Global Positioning System;

D3. CONTRACT ADMINISTRATOR

- D3.1 The Contract Administrator is:
- Richard Sherby, M.L.S. Geomatics Administrator
Planning, Property & Development Department
Winnipeg, Manitoba, R3E 3P1
Telephone No.: (204) 986-5073
Facsimile No.: (204) 944-8476

D4. NOTICES

- D4.1 GC.7.05 is hereby amended to delete reference to "registered mail" and to replace same with "ordinary mail".
- D4.2 GC.7.05 is further amended hereby to include delivery by facsimile transmission (fax) as an acceptable means of delivering notices, consents, approvals, statements, authorizations, documents or other communications required or permitted to be given under this Contract.

Deliveries by fax will be deemed to have been received on the day of delivery, if a business day, or if not a business day, on the business day next following the day of delivery.

D4.3 Further to GC.7.05, all notices, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D4.4, D4.5 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the address or facsimile number identified in D3.1.

D4.4 All notices of appeal to the Chief Administrative Officer shall be sent to the following address or facsimile number:

The City of Winnipeg
Chief Administrative Officer Secretariat
Attn: Chief Administrative Officer
Administration Building, 3rd Floor
510 Main Street
Winnipeg MB R3B 1B9
Facsimile No.: (204) 949-1174

D4.5 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following address or facsimile number:

The City of Winnipeg
Corporate Services Department
Legal Services Division
Attn: City Solicitor
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1
Facsimile No.: (204) 947-9155

SUBMISSIONS

D5. AUTHORITY TO CARRY ON BUSINESS

D5.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

SCHEDULE OF WORK

D6. COMMENCEMENT

D6.1 The Contractor shall not commence any Work until he is in receipt of a Purchase Order from the City authorizing the commencement of the Work.

MEASUREMENT AND PAYMENT

D7. PAYMENT

D7.1 Further to GC.9.01 and GC.9.03, payment shall be in Canadian funds net thirty (30) Calendar Days after receipt and approval of the Contractor's invoice.

WARRANTY

D8. WARRANTY

- D8.1 Notwithstanding GC.10.01, if any law of Manitoba or of the jurisdiction in which the Work was manufactured requires, or if the manufacturer provides, a longer warranty period or a warranty which is more extensive in its nature, then the provisions of such law or manufacturer's warranty shall apply.

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS

- E1.1 These Specifications shall apply to the Work.
- E1.2 Bidders are reminded that requests for approval of substitutes as an approved equal or an approved alternative shall be made in accordance with B5.

E2. GOODS

- E2.1 The Contractor shall supply RTK GPS rover equipment to receive GPS signals, which are used to compute accurate and repeatable RTK coordinates (i.e.: satellite positioning) with a high degree of confidence in accordance with the requirements hereinafter specified.
- (a) The rover system comprises of two major parts; an antenna/receiver and data collector.
- E2.2 Applicable Specifications for RTK GPS
- (a) Trimble 5800 RTK Rover System with internal radio or equivalent.
- (b) The maximum dimensions should not exceed 19.0 cm (7.5") wide by 11.2 cm (4.4") deep including connectors.
- (c) The GPS Receiver with internal radio modem, internal battery and UHF antenna must not exceed 1.35kg (2.97lbs).
- (d) The complete Real Time Kinematic (RTK) rover must not weigh more than 3.71kg (8.18lbs). Items that must be included: radio modem and radio antenna, range pole, an internal battery for at least 10.6 hours duty (2 batteries @ 5.3hrs each), data collector, data collector bracket.
- (e) The GPS Receiver should be operated by mounting the rover on a light weight range pole.
- (f) The GPS Receiver must be designed to withstand a 2m (6.6ft) non-operating pole drop onto concrete.
- (g) The GPS Receiver must be able to operate to measurement specification in temperatures between -40° to +65°C (-40°F to +149°F).
- (h) The GPS Receiver must be supplied with integral dust caps to protect the connector when no cable is connected.
- E2.3 The GPS System (24 channel) must track the following signals:
- (a) L1 Band: C/A Code, Full Cycle Carrier Phase and Doppler;
- (b) L2 Band: L2C, Full Cycle Carrier Phase.
- E2.4 The GPS Receiver must have the following positioning requirements:
- (a) Static and FastStatic surveying
- (b) Horizontal Accuracy +/-5mm + 0.5ppm (x baseline length) RMS.
- (c) Vertical Accuracy +/-5mm + 1ppm (x baseline length) RMS.
- E2.5 Kinematic surveying:
- (a) Horizontal Accuracy +/- 10 mm + 1ppm (x baseline length) RMS.
- (b) Vertical Accuracy +/- 20 mm + 1ppm (x baseline length) RMS.
- E2.6 The GPS System must be capable of the following outputs:
- (a) NMEA messages.

- (b) The GPS Receiver must be capable of outputting the following NMEA messages: AVR, GGA, GSA, GSV, HDT, PTNL_GGK, PTNL_GGK_Sync, PTNL_PJK, PTNL_PJT, PTNL_VGK, PTNL_VHD, RMC, ROT, VTG, and ZDA.
- (c) The GPS Receiver must be capable of outputting streamed data up to a 20Hz rate.
- (d) RTCM messages
- (e) The GPS Receiver must be capable of outputting RTCM formats version 2.0, USCG 9-3, 2.1, 2.2, 2.3 and version 3.0.

E2.7 The GPS Receiver must:

- (a) Be an integrated dual frequency, survey grade RTK GPS/WAAS receiver, antenna, UHF radio, and power source combined into a single unit.
- (b) Capable of performing Static, Fast Static, Kinematic, and Real Time Kinematic surveys, when used with a Data Collector device.
- (c) Have an antenna with an extremely stable horizontal phase center with <1mm in phase center variation, provides low elevation tracking technology, and multi-path mitigation techniques.
- (d) Be versatile; can be configured as a rover or a GPS base (at least 2MB internal memory).
- (e) Have the option to be equipped with a fully sealed internal GSM/GPRS module for RTK and VRS operation.
- (f) Be controlled by a data controller device that is Bluetooth supported while using an external Cellular Digital Packet Data modem (CDPD) or Cellular modem.
- (g) Be Compatible with Bluetooth cell phones (completely cable free) and can support the use of GPRS.
- (h) Capable of outputting RTCM formats version 2.0, USCG 9-3, 2.1, 2.2, 2.3 and version 3.0 CMR, and CMR+.
- (i) Indicate the status of the battery in use.
- (j) Display that the broadcast signal (cellular or radio) has been accepted from a broadcasting device on the same frequency as the receivers internal radio.
- (k) Report Signal-to-Noise Ratio (SNR) values for L1, L2.
- (l) Collect raw RTK data while using a post-processed infill technique.

E2.8 The Data Collector must:

- (a) Include Microsoft ActiveSync technology.
- (b) Include the industry-standard Microsoft Windows Mobile version 5.0 including: Pocket Internet Explorer, File Explorer, Pocket Word, Pocket Excel, Pocket Messaging (Outlook e-mail) and Windows Media Player, to provide a familiar operating environment. Proprietary, non-standard interfaces require additional training and re-training, and are not acceptable.
- (c) Be able to multi-task; the ability to actually perform two operations at the same without having to switch between the two operations. The user should be able to switch-to all open windows from a single screen touch key at all times.
- (d) Support software that shall:
 - (i) Allow the job database of observations and user inputs to be reviewed. Observational data must not be editable. Points in the job database to be deleted and undeleted.
 - (ii) Allow editing of Height of target/antenna, and Height of instrument/antenna in the field, with a permanent record of the original and changed heights being stored in the same file.
 - (iii) Review point coordinates, observations, the best point and all duplicate points, target and antenna heights, codes and notes and various quality indicators such as target heights or PDOP's.

- (e) Provide real time updates of all of the following functions:
 - (i) Available satellites as viewed at the rover.
 - (ii) Available satellites as viewed at the rover from the base.
 - (iii) SNR on individual rover satellites.
 - (iv) RMS (Root Mean Square) of GPS signal.
 - (v) Horizontal precisions (GPS).
 - (vi) Vertical Precisions (GPS).
 - (vii) Solutions type i.e. Fixed, Float, WAAS.
 - (viii) Percentage of available power from the power source.
 - (ix) PDOP, or RDOP.
 - (x) Radio communication (when needed).
- (f) Collect extensive GIS data information. It must be possible to define in the office the information to be collected in the field.
 - (i) Be capable of displaying data in a graphical job map.
 - (ii) Support multiple AutoCAD, DXF, ASCII, or Shape file background maps and support layers which can be turned on or off.
 - (iii) Includes an online help directly on the Data Collector for easier use of the system.
 - (iv) Support Coordinate Geometry functionality.
 - (v) Contain a library of common co-ordinate systems.
 - (vi) Allow user entry of projection and datum shift information.
 - (vii) Allow for the transfer of grid datum files (NADCON) from the office software.
 - (viii) Allow for and enable calculation of Ground Co-ordinate systems, and be able to switch between grid and ground coordinates on the fly within the survey without switching projections.
 - (ix) Allow for the transfer of geoid files from the office software.
 - (x) Support the use of geoid models.
 - (xi) Support a 2D only GPS Site Calibration
 - (xii) Support on-site GPS calibration. The user must be able to select a background calibration while surveying (auto-calibration). The GPS site calibration must be capable of computing all of the following adjustments:
 - Horizontal adjustment.
 - Vertical adjustment.
 - Datum shift.
 - Plane projection.
 - (xiii) Have a large color, illuminated TFT, daylight-readable touch screen displayed at 320x240 pixels (QVGA) backlight illuminated display
 - (xiv) Have internal rechargeable battery.
 - (xv) Have a multifunctional 53 keyed keyboard with an eight position spider key.
 - (xvi) A full alphanumeric keyboard that will facilitate operation with gloves.
 - (xvii) Have interactive graphical interface (text only displays are not acceptable) which is daylight readable and must have a back light for work under 'dark' conditions.
 - (xviii) Be able to record data from; GPS and Optical data from leading manufacturers.
 - (xix) Be able to download raw GPS data from a receiver, via a RS-232 cable, USB, or Serial cable, for post-processing.
 - (xx) Have data storage with at least 128 MB RAM
 - (xxi) Not lose data if there is no power supplied (Battery or External) to the unit.

E3. DELIVERY

E3.1 Goods shall be delivered before December 31, 2007, f.o.b. destination, freight prepaid to:

Planning, Property & Development
Development and Inspections Division
Geomatics Branch
2nd floor, 65 Garry Street,
Winnipeg Manitoba R3C 4K4

E3.2 Goods shall be delivered between 8:30 a.m. and 4:30 p.m. on Business Days.