



TENDER # 13-164

SPECIFICATIONS FOR

HRM City Hall Elevator – Supply & Install

PLANNING AND INFRASTRUCTURE
Halifax Regional Municipality

DATE: March 15, 2013

CLOSING DATE: 2:00 p.m. Friday April 5, 2013

Revision: 2012

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** As found on the Halifax Regional Municipality Website at the following address:
<http://halifax.ca/procurement/terms.html>

END OF SECTION 00 01 10

Drawing Number

Title

Not applicable

End of Section 00 01 15

Not applicable

End of Section 00 01 20

FORM OF TENDER

Tender by _____

Ms. Anne Feist
Manager of Procurement
Halifax Regional Municipality
Suite 103, 1st Floor,
40 Alderney Dr.
Dartmouth Nova Scotia, B2Y 2N5

Having examined the drawings and specifications for the HRM City Hall Elevator Project, as well as site conditions affecting the work, the undersigned offers to furnish all labour and materials required for a complete job in accordance with the said documents at a price as follows;

Total Price (excluding all taxes) \$ _____

Subcontractor Information

EDIT CATEGORIES AS REQUIRED

Provide subcontractor in accordance with 00 21 13 1.14.

Division	Subcontractor
Elevator	
Electrical	

We enclose herewith a certified cheque or bid bond* made payable to the Halifax Regional Municipality as specified in Section 00 21 13, Instructions to Bidders, Clause 1.2 - Deposit and Surety, to be held in escrow and dealt with as follows:

- a) In the event of the above tender being accepted within 90 days of the closing of tenders and our failing or declining to enter into a contract for the amount of our tender, the said cheque/bid bond shall be forfeited to the Owner in lieu of our failure of refusal to enter into such contract.
- b) In the event of our tender not being accepted within 90 days of the closing of tenders, the said cheque/bid bond will be returned to us forthwith unless a satisfactory arrangement is made with us covering its retention for a further period.
- c) In the event of our tender being accepted, the said cheque/bid bond will be retained as a guarantee of entering into a contract, to be released on receipt of a Performance Bond in the amount specified in Section 00 21 13, Instructions to Bidders, Clause 1.2 - Deposit and Surety Said Performance Bond to be replaced by a Maintenance Bond covering the one year warantee period. In cases where a certified cheque has been retained, such cheque will be released at the termination of the warantee period.
- d) The contractor, and/or supplier agrees that the Halifax Regional Municipality may apply all payments for

work completed or goods supplied, or service provided, to amounts owing to the Municipality by the contractor or supplier, including related administration of late payment charges related to the amounts owing.

*See Section 00 21 13, Instructions to Bidders, Clause 1.2 - Deposit and Surety

Appendix 'A' must be signed and returned with the tender to be considered.

We hereby acknowledge receipt of the following addenda:

<u>ADDENDUM NO.</u>	<u>DATED</u>	<u>NO. OF PAGES</u>
1. _____		
2. _____		
3. _____		

We hereby agree to the General Requirements for Specified Price Contracts as posted on the Halifax Regional Municipality website at <http://halifax.ca/procurement/SpecifiedPriceContracts.html>

In submitting this tender, we recognize the rights of the Owner (HRM) to accept any tender at the price submitted, or portion thereof, or to reject all tenders as the Owner may determine to be in its best interests. We also recognize that the Owner (HRM) may evaluate or award contracts based upon price breakdowns, unit costs or alternate pricing called for in the tender documents but that the Owner will not award components of the tender separately in the same tender call unless so stated in the tender documents.

If we are notified of the acceptance of this tender within the time limit above specified, we will enter into a written agreement with the Halifax Regional Municipality and complete the entire work included in the contract within _____ days.

Should we fail to complete the Contract within the specified time, or specified time as amended, we agree that damage will be sustained by the HRM and that it is and will be impracticable and extremely difficult to ascertain and determine the exact actual damage which the HRM will sustain in the event of and by any of such delay and reason we agree to pay the HRM the sum of one hundred dollars (\$100.00) for Liquidated Damages, and not as a penalty, for each and every calendar days delay in finishing the work in excess of the agreed upon Date of Completion of the work. We agree that this amount is a reasonable estimate of the actual damage to the HRM which will accrue during the period in excess of the agreed upon Date of Completion of the work. Liquidated Damages payable under this paragraph are in addition to and without prejudice to any other remedy, action or alternative that may be available to the HRM.

APPENDIX A

TO BE COMPLETED BY

VENDOR

In witness whereof the Vendor/Contractor/Bidder herewith set his hand

this _____ day of _____ 20 ____.

Name of Contractor

Phone

Address of Contractor

Fax

Signed and Delivered in the presence of

Witness

Authorized Signing Officer

Title of Signing Officer

HALIFAX REGIONAL MUNICIPALITY

Witness

Authorized Signing Officer

Title of Signing Officer

Witness

Authorized Signing Officer

Title of Signing Officer

The Bidder must have the legal capacity to contract. If the Bidder is a sole proprietorship, a partnership or a corporate body, the Bidder must provide, if requested by the Contracting Authority, a statement and any requested supporting documentation indicating the laws under which it is registered or incorporated together with the registered or corporate name and place of business. This also applies to bidders submitting a bid as a joint venture. Failure to properly execute submitted documents or to properly complete Appendix "A" (where required) will result in rejection of your tender. IF YOU HAVE ANY QUESTIONS IN THIS REGARD, PLEASE CONTACT THE UNDERSIGNED PRIOR TO TENDER CLOSING TIME FOR CLARIFICATION OF THIS OR ANY OTHER DETAILS.

Anne Feist
Manager of Procurement

Occupational Health and Safety Division
Nova Scotia Labour and Workforce Development
5151 Terminal Road, 6th Floor
P.O. Box 697
Halifax, Nova Scotia
B3J 2T8

NOTICE TO NOVA SCOTIA DEPARTMENT OF LABOUR AND WORKPLACE DEVELOPMENT

This is to advise the Nova Scotia Department of Labour and Workplace Development, the Owner and the Engineer that if we, _____ (Tenderer's Name), are successful on the tender for the HRM City Hall Elevator Project that we will be the Contractor for the work and therefore will be the Constructor as defined by the Nova Scotia Occupational Health and Safety Act.

We will have control of the physical work and labour force and shall effectively direct and supervise the work. We will be solely responsible for construction means, methods, techniques, sequences and procedures and for coordinating the various parts of the work under the contract.

We shall be solely responsible for construction and worker safety at the place of the work and to ensure compliance with all rules, regulations, acts and practices required by applicable Construction Safety Legislation including the Nova Scotia Occupational Health and Safety Act, and the Occupational Safety General Regulations (pursuant to the Occupational Health and Safety Act) and the Human Resources Development Canada, Canada Labour Code.

Contractor's Name

Authorized Representative's Signature

Date

CSF-004

CONTRACTOR HEALTH & SAFETY QUESTIONNAIRE

Contractors wishing to submit proposals to HRM must complete this questionnaire and submit it to HRM Procurement with their bid information

GENERAL INFORMATION:

Company Name: _____

Company Address: _____

Telephone Number: _____

INSURANCE/WORKERS' COMPENSATION COVERAGE:

Is your company covered by general liability insurance, automotive insurance, umbrella policies, etc., that would cover the cost of damages to, and incidents involving third parties? Yes No

Is your company in good standing with the Workers' Compensation Board for the Province of Nova Scotia? Yes No

If no, please explain _____

SAFETY PERFORMANCE:

Does your company have any non compliance or outstanding issues with The Nova Scotia Department of Environment and Labour, such as stop work orders, pending charges/prosecutions, or recent (within the last year) convictions or fines? Yes No

If yes, please attach a note explaining the details, including current status or resolution.

SAFETY PROGRAM:

Does your company have a written health and safety policy signed by management? Yes No

Does your company have written safety policies, procedures, and safe work practices applicable to the scope of work to be performed, including clearly defined safety responsibilities for managers, supervisors and workers? Yes No

How do you communicate your safety policies and procedures?

How often do managers/executive officers visit the work site? _____

Please explain how you conduct on site inspections, including how often they are conducted, what they cover and who conducts them?

Does your company have a risk assessment procedure? Yes No

Does your company have a procedure in place for investigating incidents, accidents and near misses? Yes No

The Contractor shall attach a list and contact information of all supervisors you will be using on site, as well as any safety coordinator or persons responsible for job site safety.

Do you provide on the job training to all employees? Yes No

Please indicate how you inform your workers, other workers or persons at or near the workplace of any workplace hazards to which they may be exposed.

Do you have a disciplinary policy in place for anyone committing health and safety violations? Please describe: Yes No

Do you have a Joint Occupational Health and Safety Committee or Representative? Yes No

Do you have a preventative maintenance program for tools and machinery? Yes No

Do you have a health and safety policy in place for incorporating sub contractors into the workplace ? Yes No

Please provide any other information relating to other programs or activities that you believe demonstrates your company conducts their projects safely and in accordance with all health and safety requirements.

NOTE: PLEASE BE ADVISED THAT DURING THE TENDERING PROCESS OR AT ANYTIME DURING THE CONTRACTED WORK, HRM MAY REQUEST COPIES OF POLICIES, PROCEDURES, RECORDS

OR DOCUMENTATION OF PROOF FOR ANY QUESTIONS ANSWERED ON THIS QUESTIONNAIRE.

DO YOU AGREE TO PROVIDE THIS INFORMATION
IF REQUESTED ?

Yes No

Signature

Date

Position / Title

End of Section 00 45 00

1.0 INSTRUCTIONS TO BIDDERS

1.1 Tenders

- 1.1.1 Tenders will be received up to two o'clock (2:00 p.m.), local time, Friday April 5, 2013, at the office of:

Halifax Regional Municipality
Procurement Section,
Suite 103, 1st Floor,
40 Alderney Dr. (Alderney Gate),
Dartmouth Nova Scotia,
B2Y 2N5

ATTENTION: Ms. Anne Feist
Manager of Procurement

- 1.1.2 Tenders must be deposited in sealed envelopes clearly marked as follows:

Tender # 13-164

HRM City Hall Elevator Project

- 1.1.3 The Halifax Regional Municipality reserves the right to accept any tender at the price submitted or portion thereof or to reject any or all tenders as the Municipality may determine to be in its best interests.
- 1.1.4 Public opening of the tender will take place in Conference Room, Halifax Regional Municipality Procurement Section, Suite 103, 1st Floor, 40 Alderney Dr. (Alderney Gate), Dartmouth Nova Scotia, B2Y 2N5., immediately following the closing of the tender.
- 1.1.5 Tenders shall be for a stipulated sum on the form provided without escalator clause or other qualifications. All blank spaces on forms are to be filled in and all items must be bid, unless the tender specifically permits otherwise.
- 1.1.6 Project Documents are non-transferable. Tenders will not be accepted from Contractors that have not obtained the Documents from HRM Procurement, or its designate.
- 1.1.7 Firms submitting bids must have attended the Mandatory Site Visit on the date noted in the tender form or subsequent addenda. Any bids received from firms not attended the Mandatory Site Visit will be rejected.
- 1.1.9 The tender form must be signed in the space provided with the signature of the bidder or of a duly authorized official of the organization bidding. If a joint bid is submitted, it must be signed on behalf of each of the bidders. Tenders not properly signed will be rejected.
- 1.1.10 Tenders containing obvious arithmetic errors such as incorrect extensions or misplaced decimals will be accepted where the intent of the bidder is clear. Bid unit prices shall ordinarily be used to correct extensions.
- 1.1.11 HRM, in evaluating a tender will be guided by the following:

- 1.1.11.1 Where the bids submitted in response to an invitation to bid are higher than the estimated contract value, bids shall not necessarily be invalidated for this reason.
- 1.1.11.2 If the lowest competent bid is within 15% of the estimated contract value, the contracting authority may choose to:
- (a) Award the contract for the bid amount.
 - (b) Negotiate changes in the scope of work with the lowest competent bidder (Within the framework of the original tender call, including all subcontractors listed) to achieve an acceptable contract price. If negotiations fail, the contracting authority can make changes to the scope of work and re-tender the work.
- 1.1.11.3 If the lowest competent bidder is greater than 15% over the estimated contract value, the contracting authority may choose to:
- (a) Award the contract for the bid amount.
 - (b) Make major changes to the scope of work (10% of the estimated contract value or greater) and re-tender the work.
 - (c) Make minor changes to the scope of work (less than 10% of the estimated contract value) and negotiate changes with the lowest competent bidder to achieve an acceptable contract price. If negotiation fails, the contracting authority can make changes to the scope of work and re-tender.
- 1.1.11.4 Application of 1.1.11.2 and 1.1.11.3 is subject to budget availability

1.2 Deposit and Surety

- 1.2.1 For contracts with a value less than \$100,000, bid surety and contract security is not required
- 1.2.2 For tenders valued at over \$100,000, the bid shall be accompanied by bid security in the amount of 10% of the Lump Sum Price, in the form of a certified cheque, a bank draft, a money order, a bid bond, or any combination thereof, made payable without recourse, to the Halifax Regional Municipality, to be held in escrow and dealt with as called for in the 'Tender Form'.
- 1.2.3 After award, the successful tenderer shall replace the bid surety with a performance bond and Labour & Materials bond. Where the Bid Surety has taken the form of a certified cheque, the security of the successful bidder will be returned when he has fully complied with the conditions for performance surety outlined in the tender documents. .
- 1.2.4 For contracts with a value of \$100,000 to \$250,000 contract security may be in the form of either a bond in the amount of 50% of the Lump Sum Price or alternatively, a certified cheque or irrevocable letter of credit in the amount of 15% of the Lump Sum Price. For contracts with a value greater than \$250,000 but less than \$500,000 contract security may be in the form of a bond in the amount of 50% of the Lump Sum Price or alternatively, a certified cheque or letter of credit in the amount of 20% of the Lump Sum Price. For contracts with a value greater than \$500,000, security will only be accepted in the form of the 50% performance and labour and material bond.

1.3 Contract Documents

Contract documents shall be signed by the contractor within ten days of the written notification of acceptance of this tender. Contract shall be signed in the office of the City Solicitor, Legal Services, 3rd Floor, Duke Tower, 5251 Duke Street, Halifax, N.S.

1.4 Plans and Specifications

Specifications, form of tender, and all pertinent information may be examined and obtained at the office of the Halifax Regional Municipality Procurement Section, Suite 103, 1st Floor, 40 Alderney Dr. (Alderney Gate), Dartmouth Nova Scotia, B2Y 2N5

1.5 Tender Time Limit

Each contractor submitting a tender shall agree that the tender shall be valid for 90 days from the closing date, the closing date being considered the first day the tender is valid until 12 o'clock noon the 90th day. Should no acceptance be made within this period, the Contractor may, at their option, rule the tender invalid.

1.6 Competency of Bidder

The HRM intends to only contract with responsible bidders who are in the business of providing the goods and/or services bid upon and can provide proof that they can furnish satisfactory performance based on past work experience with the HRM, other companies, or government agencies, and have the financial, managerial, and resource capabilities for the size of project bid upon. Satisfactory performance includes meeting all of the requirements of the various federal and provincial regulations and agencies for completion of work and making payments to subcontractors in a timely basis. The evaluation process may include reference checks, third party credit checks, site visits, and/or your firm may be asked to allow the HRM to complete personal credit and/or criminal record checks if company information is not available or adequate. Bidders found unacceptable during the evaluation process will not be given further consideration.

1.7 Examination of Plans, Specifications and Site

Each bidder, before submitting their tender, shall carefully examine the contract documents and shall visit the site to ascertain all conditions existing, or to be anticipated, which may affect this work. No extra compensation will be allowed for expenses incurred during the progress of the work through failure to visit the site or to study drawings and specifications and make the necessary provisions in their tender price.

1.8 Questions Regarding Plans and Specifications

- 1.8.1 Should the bidder find errors or discrepancies in, or omissions from, the drawings or specifications, or be in doubt as to their meaning, they shall notify the Owner.
- 1.8.2 If necessary, the Owner will issue addenda, numbered and dated, clarifying any points in question. Addenda shall be incorporated in and become part of contract documents.
- 1.8.3 All questions concerning this Tender and all applications for alternate/equal materials or procedures must be forwarded in writing to the HRM Procurement Department (fax # 490-4206). All such correspondence must clearly state the Tender name, number and closing date.

- 1.8.4 No verbal instructions or verbal information to vendors will be binding on Halifax Regional Municipality. All written instructions and specifications will be considered clear and complete unless written attention is called to any apparent discrepancies or incompleteness before the official closing. Should any alterations to the bid request form be deemed necessary by the Purchasing Agent, these alterations will be made in the form of written addenda which will be provided to all vendors who received a bid request. The addenda shall be considered as part of the request.

1.9 Drawings and Specifications

- 1.9.1 The drawings hereinafter referred to shall be those listed in these specifications, together with such other working and detailed drawings as may be issued by the Owner during the progress of the work.
- 1.9.2 It is the intention that the work shown on the drawings and/or called for in the specifications shall complete the contract in every respect. The submission of a Tender shall constitute an undertaking to do all work required to complete the contract to the full intent and meaning of the drawings and the specifications.

1.10 Materials

The contractor shall submit their tender based on materials and equipment specified. Materials, as specified, are to be considered minimum required quality. Alternatives shall be submitted to the Owner for approval not later than five (5) working days prior to tender closing date. NOTE: No consideration shall be given to alternatives after the Tender closing.

1.11 Co-ordination of Trades

It shall be the responsibility of the Contractor to co-ordinate all sub-trades and ensure that the sub-trades have placed their orders in sufficient time to allow for delivery on schedule. If, for any reason, a delay in delivery is encountered, the Contractor shall have available, extra copies of correspondence showing the date of ordering, date of delivery and reason for delay, and make this information available to the Owner upon request.

1.12 Work Schedule

- 1.12.1 Provide within 10 working days after Contract award, in a form acceptable to the Owner, a schedule showing anticipated progress stages and final completion of work within time period required by Contract Documents.
- 1.12.2 Interim reviews of work progress based on schedule submitted by the Contractor will be conducted as decided by the Owner and schedule updated by the Contractor in conjunction and with approval of the Owner.
- 1.12.3 Failure by the successful bidder to meet the above requirements will entitle HRM to cancel the award of the contract and to retain the tender deposit as compensation for damages sustained due to the Contractor's default. HRM may then award the contract to one of the other bidders or take such action as it chooses.

1.13 Amendment or Withdrawal of Tender

Tenders may be amended or withdrawn by letter, telegram or facsimile (902-490-4206). Amendment or withdrawal by telegram or facsimile must be certified by registered letter postmarked prior to date and time of closing.

Amendment of individual prices is the only acceptable price amendment and should only indicate the dollar amount of increase or decrease to the original unit price. Amendments shall not disclose either original or revised unit prices or the original or revised total tender price.

Head amendment or withdrawal as follows:

[Amendment]/[Withdrawal] of Tender for [], Tender #[]. Sign as required for Tender, and submit at the address given for receipt of tenders prior to time of Tender Closing.

1.14 Subcontractor and Supplier Information

1.14.1 The list of subcontractors and suppliers named by the bidder shall be the approved slate of contractors and suppliers. Any changes following the acceptance of tender shall only be with the written approval of the Owner and only as a result of extraordinary circumstances.

1.14.2 The bidder shall not use the term 'Own Forces' or like expression in a particular classification of work or subtrade unless the bidder has demonstrated expertise and experience, and is actively engaged in that specific area. The Owner reserves the right to expect verification of such qualifications on demand. Failure to provide verification to the satisfaction of the Owner may be cause for rejection of the tender.

1.15 Post-Bid Submissions

1.15.1 To be eligible to receive award of Contract the Contractor shall provide within 48 hours after the tender closing but before award of Contract a copy of the following documents:

Evidence of compliance with the requirements of the Province of Nova Scotia with respect to Workers' Compensation Safety Audit Program. This shall be in the form of a current and valid letter of Good Standing issued by a safety audit firm endorsed by Worker's Compensation Board of Nova Scotia (WCB) to audit for the type of work covered by this tender. The letter must indicate that the tenderers current standing falls into one of the following categories:

- .1 Certificate of Recognition
- .2 Audit Pending

Where the Proponent has not yet obtained a Certificate of Recognition, the Proponent must submit a letter from the WCB endorsed audit firm indicating the Proponent is "in the process" (maximum six (6) months) of obtaining the Certificate of Recognition. "In the process" has been defined as the completion of the four mandatory courses (Safety Basics, Safety Orientation, Safety Audit and Leadership) and completion of training required by the Occupational Health and Safety Act (such as, but not limited to WHMIS, TDG, TCP, Confined Space and First Aid) and

for a period no greater than six (6) months.

- 1.15.2 The Contractor shall also provide evidence of compliance with the requirements of the Province of Nova Scotia with respect to Workers' Compensation Insurance including payments due thereunder. WCB Clearance Letters provide clarity as to who is covered and who is not covered for individual firms (e.g. Directors not taking a T4 from the company are excluded from coverage, owners of sole proprietorships and partnerships are excluded from coverage, family members living in the household of a director, proprietor or partner are excluded from coverage) It will be the responsibility of the Principal Contractor to ensure coverage is in place for their employees and employees of any their sub-contractors. **Individuals not covered by WCB are not permitted on Halifax Regional Municipality property.**
- 1.15.3 At any time during the term of the Contract, when requested by the Owner, the Contractor shall provide such evidence of compliance for both of the above requirements.

END OF SECTION 00 21 13

Part 1 General

1.1 RELATED SECTIONS

- .1 Section 04 27 13 - Composite Unit Masonry: Building-in and grouting hoistway door frames and sills.
- .2 Section 05 50 00 - Metal Fabrications: Overhead hoist beams (removable hoistbeam to be retained for future use).
- .3 Section 07 12 13 - Bituminous Sheet Waterproofing: Waterproofing of elevator pit walls and floor.
- .4 Section 09 21 16 - Gypsum Board Assemblies: Gypsum machine room/controller space walls.
- .5 Section 09 16 61 - Resilient Flooring: Floor finish in cab.
- .6 Division 21 – Fire Suppression Section 21 13 00 - Sprinklers: Sprinkler heads in hoistways.
- .7 Division 22 – Plumbing Section: Individual pit drain(s) required. Pit drain(s) to handle 3000 gph per elevator.
- .8 Division 23 – Heating, Ventilating and Air-Conditioning (HVAC): Machine room/controller space and hoistway ventilation.
- .9 Division 26 – Electrical Section : Electrical requirements.

1.2 REFERENCES

- .1 ASME A17.1 2010/CSA-B44-10 - Safety Code for Elevators and Escalators.
- .2 ASTM A36/A36M-08 - Standard Specification for Carbon Structural Steel.
- .3 ASTM A139/A139M-04(2010) - Standard Specification for Electric-Fusion (Arc)-Welded Steel Pipe (NPS 4 and Over).
- .4 ASTM A167-99 (2009) - Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
- .5 ASTM A653/A653M-10 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- .6 ASTM A1008/A1008M-10 - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable.
- .7 ASTM B221-08 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes .
- .8 CAN/ULC-S104-10 Standard Method for Fire Tests of Door Assemblies.
- .9 CAN/CSA-B651-04 (R2010) - Accessible Design for the Built Environment.
- .10 CAN/CGSB 1.40-97 - Anticorrosive Structural Steel Alkyd Primer.
- .11 CSA-B44.1-11/ASME-A17.5-11 - Elevator and Escalator Electrical Equipment.
- .12 CSA-C22.2 No. 100-04 (R2009) - Motors and Generators.
- .13 CSA-W55.3-08 - Certification of Companies for Resistance Welding of Steel and Aluminum.
- .14 NEMA LD3-2005 - High Pressure Decorative Laminates (HPDL).

- .15 NFPA 252 - Fire Tests of Door Assemblies (2008 Edition).
- .16 SSPC (The Society for Protective Coatings) - Steel Structures Painting Manual.

1.3 SYSTEM DESCRIPTION

- .1 The hoistway for this elevator will be constructed to meet the dimensions and structural requirements of the successful elevator manufacturer. The hoistway dimensions listed in this System Description can be modified for the final product providing the final product meets the car inside dimensions as stated herein.
- .2 Elevator Type: Machine room less (MRL) traction elevator.
- .3 Characteristics of elevator as follows:
 - .1 Rated Net Capacity: 1134 kgs. (2500 lbs.)
 - .2 Rated Speed: 1.01 m/sec. (200 ft/min.)
 - .3 Number of Stops: 4 front only
 - .4 Number of Openings: 4 front only
 - .5 Total Rise: 14021 mm (46' 0").
 - .6 Car Inside Dimensions: 1321 mm (4' 6") W x 2032 mm (6' 8") L
 - .7 Cab Height: 2438 mm (8' 0")
 - .8 Hoistway Size: 2109 mm (6' 11") W x 2565 mm (8' 5") L.
 - .9 Hoistway Overhead: 4724 mm (15' 6") clear (minimum below hoist beam)
 - .10 Hoistway Pit Depth: 1524 mm (5' 0")
 - .11 Hoistway and Cab Entrance Frame Opening Sizes: 1067 mm (3' 6") W x 2134 mm (7' 0") H.
 - .12 Operation: Simplex collective operation
 - .13 Door Operation:
 - .1 Automatic operator to operate car and hoistway doors. Opening and closing speed to suit requirements for the physically disabled.
 - .2 Two-speed side opening.
 - .14 Leveling Device: Stop elevator within 1/4 inch under any loading condition or direction of travel.
 - .15 Main Power Supply: 208/575 Volts (as existing), 3 Phase, 60 Hz.
 - .16 Lighting Power Supply: 120 Volts, 1 Phase, 15 Amp, 60 Hz.
- .4 Door Control Features:
 - .1 Open doors automatically when car arrives at floor.
 - .2 Door Safety Devices: Electronic multi-beam safety edges.
- .5 Interconnect elevator control system with building fire alarm system.
- .6 Seismic Design: In accordance with applicable code.
- .7 Automatic standby power operation with manual override.
- .8 Independent Service: Key-activated service to remove and return car from normal operation and cancel all pre-registered car calls.
- .9 Emergency Operation:

- .1 Provide Firefighter Emergency Operation to the latest edition of the ASME A17.1/CSA-B44 and specification.
- .2 Provide Emergency Power Operation to the latest edition of the ASME A17.1/CSA-B44 and specification.
- .10 Elevator contractor is responsible to provide pit access ladder.

1.4 ADMINISTRATIVE REQUIREMENTS

- .1 Project management and coordination procedures.
- .2 Coordination:
 - .1 Coordinate with other work having a direct bearing on work of this section.
 - .2 Coordinate installation of sleeves, block outs, pockets, elevator equipment with integral anchors (inserts), and other items to be embedded in concrete or masonry.
 - .3 Provide templates, sleeves, pockets, elevator equipment with integral anchors, and installation instructions in time for installation.
- .3 Pre-installation Meetings:
 - .1 Convene before starting work of this section.
 - .2 Require attendance of persons directly involved with the work of this section.

1.5 SUBMITTALS FOR REVIEW

- .1 Submission procedures.
- .2 Product Data: Provide data on the following items:
 - .1 Signal and operating fixtures, operating panels, indicators.
 - .2 Cab design, dimensions, layout, and components.
 - .3 Cab and hoistway door and frame details.
 - .4 Electrical characteristics and connection requirements.
- .3 Shop Drawings: Indicate the following information:
 - .1 Motor and hoist machine, controller, selector, governor and other component locations.
 - .2 Car, machine beams, guide rails, buffers, and other components in hoistway.
 - .3 Individual weight of principal components; load reaction at points of support.
 - .4 Loads on hoist machine beams and location of load bearing pockets..
 - .5 Location of components in machine room/controller space.
 - .6 Locations in hoistway and machine room/controller space of connections for car light.
 - .7 Location and sizes of access doors, doors, and frames.
 - .8 Expected heat dissipation of elevator equipment in machine room/controller space and top of hoistway.
 - .9 Electrical characteristics and connection requirements.
- .4 Samples: Submit copies of samples, illustrating cab floor material, cab interior finishes, cab and hoistway door and frame finishes, and handrail material and finish.

1.6 SUBMITTALS FOR INFORMATION

- .1 Submission procedures.
- .2 Installation Data: Manufacturer's special installation requirements.

1.7 CLOSEOUT SUBMITTALS

- .1 Section 01 78 00: Submission procedures.
- .2 Maintenance Service:
 - .1 Provide service and full maintenance of elevator system and components for one (1) year from Date of Substantial Completion during warranty period.
 - .2 This service is to be a full preventative maintenance program that includes maintenance and repair of all elevator equipment subject to normal wear and tear, for the 12 month period at no additional cost to the owner.
 - .3 Include 24 hour callback service (both regular and overtime hours), at no additional cost to the owner, as part of this maintenance. Include travel time and expenses for this callback and routine maintenance service, at no additional cost to owner. The cost for this maintenance service is to be included in the tender price.
 - .4 Contractor is not responsible for repairs or callbacks caused by misuse, abuse, vandalism, wilful damage or other reasons beyond their reasonable control.
 - .5 As part of this full maintenance service provide any form or Condition Report required by the Authority Having Jurisdiction for renewal of the elevator licence.
 - .6 The cost of this maintenance service is to be included in the base bid.
- .3 Operation and Maintenance Data: Provide data and a minimum of 3 maintenance/data manuals as per the specification.

1.8 MAINTENANCE MATERIAL SUBMITTALS

- .1 Section 01 78 00: Maintenance and extra material requirements.

1.9 QUALITY ASSURANCE

- .1 Perform Work to latest edition of ASME A17.1 /CSA-B44, CSA-B44.1, CSA-W55.3, CSA-C22.1, and as supplemented in this section.
- .2 Fabricate and install door and frame assemblies to NFPA 80.
- .3 Installer: Employees and supervisor on payroll of elevator equipment supplier/manufacturer.
- .4 The same lead installer shall install the elevator from the day the project is manned until substantial completion. The lead installer shall not be reassigned to another project, even temporarily, until substantial completion.
- .5 Do not apply trademarks visible to the general public on any piece of equipment.
- .6 Only non-proprietary products are to be used on this project. The elevator contractor shall provide a letter, when requested, stating the equipment supplied is a non-proprietary product and technical support, components and parts of the equipment as supplied are readily available to the open market with no qualifications or delays.

1.10 REGULATORY REQUIREMENTS

- .1 Conform to applicable code and specified standards for manufacture and installation of elevator system.
- .2 Accessibility Requirements: CAN/CSA-B651.
- .3 Fire-Rated Hoistway Entrance Assemblies:
 - .1 Labelled and listed to CAN/ULC-S104.
 - .2 Installed door and frame assembly for fire rated class as indicated.
- .4 Products Requiring Electrical Connection: Listed and classified by CSA (ULC) testing firm acceptable to the authority having jurisdiction as suitable for the purpose specified and indicated.

1.11 WARRANTY

- .1 Section 01 78 00: Warranties.
- .2 Provide a one (1) year warranty to include coverage for failure to meet specified requirements, including coverage for elevator operating equipment and devices.

Part 2 Products

2.1 MATERIALS

- .1 Rolled Steel Sections, Shapes, Rods: ASTM A36/A36M.
- .2 Sheet Steel: ASTM A1008/A1008M, with matte finish.

2.2 FINISH MATERIALS

- .1 Shop and Touch-Up Primer for Steel Components: CAN/CGSB-1.40.
- .2 Touch-Up Primer for Galvanized Steel Surfaces: CAN/CGSB-1.181 zinc rich.
- .3 Primer for Wood Surfaces: Alkyd primer sealer.

2.3 ELECTRICAL COMPONENTS

- .1 Motor: CSA-C22.2 No. 100.
- .2 Fittings: Steel compression type for electrical metallic tubing.
- .3 Spare Conductors: Include 10% extra conductors and six (6) pairs of spare shielded audio cables in traveling cables.
- .4 Include additional shielded pair or applicable conductors within travel cable and wiring for a 120 VAC power supply, to accommodate a video camera(s) or a security system, in the elevator travel cable from the elevator car(s) to the machine room/controller space controller(s).
- .5 Include wiring and connections to elevator devices remote from hoistway. Provide additional components and wiring to suit machine room/controller space layout.

2.4 CAB FABRICATION

- .1 Flooring: Porcelain hard floor tile as selected by the owner and specified in Section 09 61 16.
- .2 Base: Stainless steel, satin no.4 finish

- .3 Return Wall, Door jambs, Door header, Transom, Doors, Side and Rear Wall Reveals and Top Frieze: Stainless steel, satin no.4 finish.
- .4 Cab Panels: Finished with plastic laminate on side walls. Finished with mirror above the handrail and plastic laminate below the handrail on the rear wall. The bottom 6" of the side and rear wall panels are to be finished with 5WL rigidized stainless steel. Edges of all panels are to be finished with a stainless steel binder edge wrapping the panel edge. Edges of mirror are to be finished with stainless steel binder edges. Mirror and side panels shall be mounted 4" below ceiling height. Plastic laminate selection is to be chosen from manufacturer's standard selection.
- .5 Ceiling and Lighting: Stainless steel No. 4 finish, drop ceiling with pot lights (down lights). Ceiling is to be mounted 7' 4" above finish floor. Ceiling to include 8 pot lights illuminated with 3 x 1 watt LED lamps. Access hatch shall be incorporated into the ceiling design.
- .6 Car Lighting: If the elevator is not in use, the elevator control system shall have the ability, after a specified time (this time to be adjustable), to automatically turn off the elevator cab light and fan. The light/fan must automatically become operational when a hall call is registered.
- .7 Control Panel Face Plate: Stainless steel No. 4 finish with illuminating call buttons.
- .8 Hand Rail: Stainless steel No. 4 finish, 1 3/4" tubular handrail with end caps and end turned in on handrail directly in front of entrance, full length of wall, placed on all non-access wall.
- .9 Car Direction Indicator: Shall be mounted on car door jamb and shall provide visual and audible indication of car travel as per the latest edition of the ASME A17.1/ CSA B-44 Safety Code for Elevators.
- .10 Pad Hooks: Stainless steel type, through bolted, mounted at a height agreed upon with the Owner.
- .11 Protective Pads: One (1) set with canvas covers per car, padded with cotton wadding fill material, sewn with piping edges; brass grommets spaced to match pad hook spacing in cab, cover all non-access walls and return walls, except cut-out for control panel.

2.5 EQUIPMENT

- .1 Motor, Hoist Machine, Governor, Suspension Means, Controller, Controls, Fixtures, Buttons, Wiring, Devices, Indicators and Overall Installation: Shall meet the requirements of the latest edition of the ASME A17.1/CSA-B44 Safety Code for Elevators.
- .2 Guide Rails, Cables, Spring Buffers, Attachment Brackets and Anchors: Purpose designed, sized according to code with safety factors.
- .3 Provide simplex selective collective operation using a microprocessor based controller with automatic leveling feature that shall automatically level the car to floor landings within a tolerance of .25" or better under all loading conditions up to rated load.
- .4 Provide only non-proprietary microprocessor based control. The Bidders will provide a letter, when requested, stating that their equipment is a non-proprietary product and that components / parts, and trouble shooting data is available to the open market with no qualification or delays.
- .5 Provide Independent Service feature in car operating panel.
- .6 Acceptable elevator products and control systems are; ThyssenKrupp Elevator – Synergy Series; Global-Tardiff - MRL Echo Series; GAL/Hollister Whitney – MRL GALaxy/GL series; Otis Canada Inc – GEN2 Series or a product that is approved as an equal by the consultant.

2.6 CAB ENTRANCES

- .1 Cab Doors: Stainless steel No. 4 finish; 16 gauge thick metal, of hollow sandwich panel construction, flush design, rolled profiles, rigid construction. Fabricate front return panels same as doors.
- .2 Cab Door Frames: Stainless steel No. 4 finish, 16 gauge thick metal, welded corner design with smooth invisible joints.
- .3 Thresholds: Extruded aluminum type to align with frame return.

2.7 HOISTWAY DOOR AND FRAMES

- .1 Front Entrances, All Floors: 3' 6" (1067 mm) two speed, side opening. Baked enamel or powder paint finish from manufacturer's standard selection, sandwich panel construction, flush design, rolled profiles, rigid construction.
- .2 Door and Frame Construction: 1-1/2 hour fire rating; insulated sandwich panel door construction 1-1/4 inch thick, minimum.
- .3 Provide metal tactile/Braille landing identification plates on each hoistway door jamb. These plates shall be flat black in color with white characters.
- .4 Weatherstripping: Weatherstrip hoistway doors and frames to minimize audible noise caused by air movement, imposed by car movement in the hoistway, and air pressure differential between hoistway and landing floors.
- .5 Sills: Extruded aluminum.

2.8 CAR OPERATING PANEL

- .1 Provide one (1) flush mounted operating panel with applied or integral face plate with front return panel containing illuminated call buttons corresponding to floors served, in-car alarm button, light keyswitch, fan keyswitch, independent service keyswitch and DOOR OPEN, DOOR CLOSE buttons.
- .2 Provide tactile/braille floor identification plates to the left of each car call button. These identification plates are to be fishtail design partially wrapping the button.
- .3 Position alarm button and phone button away from DOOR OPEN, DOOR CLOSE buttons where it is unlikely to be accidentally actuated.
- .4 Include service cabinet, with hinged door and lock.
- .5 Car Position Indicators: Provide digital position indicator in the car operating panel.
- .6 Emergency Light: Provide emergency lighting that meets the current code requirements.
- .7 Telephone: Provide emergency communication device that is integral to the car operating panel. It shall meet the requirements of the latest edition of the ASME A17.1/ CSA B44 Safety Code for Elevators.
- .8 Provide Fire Emergency Operation cabinet and signal in the car operating panel.

2.9 LANDING CONTROLS

- .1 Landing Buttons: Satin bronze finish faceplate, illuminating type buttons, one (1) for originating UP and one (1) for originating DOWN calls. One (1) button only at terminal landings and two (2) buttons at all intermediate landings. All buttons are to include tactile/Braille plates adjacent to

the left. Plates are to be marked with arrows and shall be fishtail design partially wrapping the button.

- .2 Lobby Panel: Provide bronze finish lobby panel faceplate at Level 2. Lobby panel shall include the following;
 - .1 Firefighters Emergency Operation Phase 1 keyswitch, visual signal and signage.
 - .2 Communications failure signal and reset keyswitch.
 - .3 Emergency Power Operation visual signal and signage.
 - .4 Elevator security keyswitch.

All equipment located on the Lobby Panel shall meet the requirements of the latest edition of the ASME A17.1/CSA B44 Safety Code for Elevators.

- .3 Combination Position and Direction Indicators: Combination digital position and direction indicator shall be mounted above or adjacent to the entrance at the Level 2. This combination fixture shall be mounted on a satin bronze finish faceplate.

2.10 MACHINE ROOM/CONTROLLER SPACE SIGNAGE

- .1 Elevator contractor shall provide a sign that states "Elevator Equipment Room" on the exterior surface of the machine room/controller space door/access panel. Elevator machine room/controller space sign shall conform and complement the signage found throughout the building.

2.11 TOP OF CAR EQUIPMENT

- .1 Provide door operator on top of the car as follows;
 - .1 Provide a GAL MOVFR door operator, or approved equal, to open and close the car and hoist way doors simultaneously, capable of moving the door panels from the closed position to within 70 millimetres (3 inches) of the fully open position at an average speed of not less than 700 millimetres (2.0 feet) per second.
 - .2 Provide a direct current motor with associated speed and torque control for the door operator.
 - .3 Check the movement of the doors at both limits of travel.
 - .4 Design the door operator and associated components for a minimum of noise.
 - .5 Locate the controls for the adjusting and regulating of the door operator acceleration, deceleration and running speeds for convenient access on the top of the cab adjacent to the door operator.
 - .6 Provide means to automatically recycle the doors in the event that they stall during the opening or closing operations.
- .2 Provide a top-of-car inspection control station meeting the requirements of the latest edition of the ASME A17.1/CSA B44 Safety Code for Elevators on the elevator car top.
- .3 Provide a car top safety guard rail if fall hazard exists.
- .4 Provide a four foot florescent fixture on the car top with an on-off switch. Manufacturer/Model shall be AimLite VP4.

2.12 ELEVATOR PIT LADDER

- .1 Provide pit ladder for safe access and egress to and from the elevator pit. Pit ladder shall be model HW-LR/CA Retractable Ladder manufactured by Scott Elevator Manufacturing Ltd. The new pit ladder shall be installed with its electrical contact operational.

2.13 EMERGENCY POWER OPERATION

- .1 Emergency power is provided to the elevators. The equipment is to be designed to accept emergency power supplied from the emergency generator. The equipment is to meet the latest edition of the ASME A17.1/CSA B44 Safety Code for Elevators with respect to Emergency Power Operation including the provisions for a pre-transfer signal and a lobby mounted visual signal.
- .2 Provide means so that the elevator system will restart automatically in the event of power interruption.

2.14 EMERGENCY CONTROL OPERATION

- .1 Provide with the elevator, a battery back-up control system that shall, in the case of an emergency, allow a certified technician to move the elevator car to an adjacent floor level. This system shall be incorporated into the new elevator controller and shall only be used in the case of an emergency by a qualified, certified technician.

2.15 SECURITY OPERATION

- .1 Provide a two position removable ON-OFF keyswitch in the elevator lobby panel labeled SECURITY.
 - .1 When in the OFF position the elevator will provide automatic operation.
 - .2 When in the ON position the elevator will return to, or remain at, the designated floor lobby with its doors closed until the keyswitch is returned to the OFF position.
 - .3 Fire Emergency Operation shall have precedence and override this security operation.

2.16 FIREFIGHTERS EMERGENCY OPERATION

- .1 Phase I Firefighters Emergency Operation, alternate level, Phase I emergency recall operation and Phase II emergency in-car operation shall be provided in accordance with the latest edition of the ASME A17.1/ CSA B44 for Safety Code for Elevators.

2.17 FINISHES

- .1 Structural Metal Surfaces: Clean surfaces of rust, oil or grease; wipe clean with solvent; prime two coats.
- .2 Machine Room/ Controller Space Components: Clean and degrease; prime one (1) coat, finish with one (1) coat of enamel.
- .3 Galvanized Surfaces: Clean with neutralizing solvent; prime one (1) coat.
- .4 Baked Enamel on Steel: Clean and degrease metal surface; apply one (1) coat of primer sprayed and baked colour as selected.
- .5 Stainless Steel: No. 4 Satin Finish.
- .6 Bronze: Satin Finish.

Part 3 Execution

3.1 EXAMINATION

- .1 Section 01 71 00: Verify existing conditions before starting work.
- .2 Verify that hoistway, pit, and machine room/ controller space are ready for work of this section.
- .3 Verify hoistway shaft and openings are of correct size and within tolerance.
- .4 Verify location and size of machine pockets at top of hoistway.
- .5 Verify that electrical power is available and of the correct characteristics.

3.2 PREPARATION

- .1 Arrange for temporary electrical power for installation work and testing of elevator components.

3.3 INSTALLATION

- .1 Install in accordance with the ASME A17.1/CSA-B44, CSA-B44.1, CSA-W55.3.
- .2 Install system components. Connect equipment to building utilities.
- .3 Provide conduit, boxes, wiring, and accessories.
- .4 Mount machine and motor on structural supports and bearing plates. Securely fasten to building supports to prevent lateral displacement. Provide information with tender on the loads required to be supported at the top of the hoistway for the elevator hoist machine.
- .5 Arrange equipment in controller room area and top of the hoistway so functioning equipment and other equipment can be removed for repairs or replacement without dismantling or removing other equipment components. Arrange for clear passage to access door. Accommodate equipment in space indicated.
- .6 Accurately machine and align guide rails. Form smooth joints with machined splice plates.
- .7 Provide inserts, in timely manner and with clear instructions, to be placed in hoistway wall(s), including pit wall(s), as hoistway is being constructed.
- .8 Bolt brackets to inserts placed in concrete form work that will perform to four times the rated pull-out load.
- .9 Coordinate installation of hoistway wall construction.
- .10 Install hoistway door sills, frames, and headers in hoistway walls. Grout sills in place. Set entrances in vertical alignment with car openings and aligned with plumb hoistway lines.
- .11 All communication devices required by the latest edition of the ASME A17.1 / CSA B-44 Safety Code for Elevators are to be provided by the elevator contractor. This includes, but is not limited to, a lobby mounted 'rescue phone' and a machine room/ Controller space communication device, if required by Code.
- .12 Adjust equipment for smooth and quiet operation.

3.4 FIELD QUALITY CONTROL

- .1 Perform tests required by ASME A17.1/CSA-B44 and Authority Having Jurisdiction.
- .2 Tests by Regulatory Agencies:

- .1 Obtain required permits to perform tests. Perform tests required by Authority Having Jurisdiction
- .2 Schedule tests with agencies and Consultant.
- .3 Furnish test and approval certificates issued by Authority Having Jurisdiction.

3.5 ADJUSTING

- .1 Adjust for smooth acceleration and deceleration of car so not to cause passenger discomfort.
- .2 Adjust automatic floor leveling feature at each floor to achieve 1/4 inch from flush.

3.6 CLEANING

- .1 Section 01 74 11: Cleaning installed work.
- .2 Remove protective coverings from finished surfaces.
- .3 Clean surfaces and components ready for inspection.

3.7 PROTECTION OF FINISHED WORK

- .1 Protecting installed work.
- .2 Do not permit construction traffic within cab after cleaning.

END OF SECTION

End of Tender No 13-164