1. GENERAL

1.1 SCOPE

.1 Comply with DDSB General Requirements and conform to all information contained herein.

.2 The Trade Contractor shall provide all labour, materials, equipment, and services that are necessary to remove and dispose of the existing Vertical Platform Lift (VPL) having TSSA #77182, and for the supply and installation one (1) new VPL in accordance with this Specification for the J. Clarke Richardson Collegiate school in Ajax, Ontario. Any site conditions requiring special attention or deviations from standard product line as outlined herein shall be calculated and included in the contract price.

.3 Where drawings, site conditions, and specifications are not conclusive or differing, the Contractor shall inform the Construction Manager and/or the Consultant at the time of tendering, but in no way shall it relieve the Contractor of the obligation under the intent of the Specification, to supply and install one (1) complete, fitting, and functional indoor VPL to full Code compliance.

.4 Contractor to verify all existing site conditions and measurements as well as specifications before providing shop drawings for review and prior to manufacturing. For further clarification, the new VPL shall be designed to suit existing clear hoistway and pit dimensions.

.5 The elevating device installation and associated maintenance references herein for the J.Clarke Richardson Collegiate school located at 1355 Harwood Avenue North in Ajax, Ontario, is referred to as the “Specification”. The Elevator Contract is referred to as the “Contract” and it includes the Specification, Bid Form, Drawings, plus any addendum issued and attached hereto. The term “Owner” refers to Durham District School Board, the term “Architect” shall refer to Durham District School Board’s representative, the term “Construction Manager” shall refer to future named Construction Manager or General Contractor, the term “Consultant” refers to National Elevator Consulting Limited, and the term “Trade Contractor” refers to the successful VPL contractor proponent.

.6 All Related Work by Others noted herein shall be reviewed and it is the responsibility of the elevator contractor to advise at the time of Bid Submission of any omitted itemized Work by Others to suit installation of their equipment. Contractor shall be held responsible for all costs associated with such omitted items not mentioned in their proposal at the time of bidding.

.9 Warranty Maintenance documentation and services shall include as a minimum (1) hour every (3) months for maintenance services for the first (12) months from Date of Substantial Completion and handover. Contractor shall ensure field time tickets are provided for all Warranty Maintenance services reflecting all work performed. Work Hours are regular hours from 7:00 am until 4:00 pm Monday to Friday, excluding statutory holidays. Contractor shall provide callback service 24 hours a day, every day of the year, at no additional cost to the Owner. Callback service shall be provided within (60) minutes during regular working hours, and within (120) minutes outside of regular business days, during weekends, and statutory holidays. Lift telephone to be monitored by the Contractor 24 hours a day, every day of the first year, at no additional cost to the owner during the first 12 months. Maintenance shall be comprehensive and include for the replacement of all Lift equipment, excluding any damaged equipment as a result of misuse and the building disconnect.

1.2 REGULATIONS AND STANDARDS

.1 The Contractor shall complete work in compliance with the latest edition of the Standards as noted below at the bid closing date, including all supplements and appendices as a minimum.

a./ Canadian Standards Association standard B355:19 *Lifts for Persons with Physical Disabilities,* inclusive of Annex A and Annex B.
b./ Ontario Building Code, Latest Edition
c./ C22.1 Part 1, Canadian Electrical Code, Latest edition.
d./ Codes and Standards Adopted by Reference, Ontario Re. 223/01.
e./ Ontario Regulation 209/01, Elevating Devices.
f./ Ontario Electrical Safety Code, Latest Edition.
g./ C22.1 Part 1, Canadian Electrical Code, Latest edition.
h./ Maintenance requirements per B355:19 Code.

.2 All work performed and material supplied by the Contractor shall be in accordance with all building codes and local by-laws. Conform to governing Provincial Codes, Rules and Regulations and or Authorities having jurisdiction.

.3 In regards to the use, handling, storage, and disposal of hazardous material, the Contractor shall comply with the requirements as outlined by the WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (W.H.M.I.S.).

1.3 QUALITY ASSURANCE

.1 Work shall be undertaken by certified and licensed elevator personnel with Provincial accreditation.

.2 Do all work and supply all equipment in accordance with the requirements and recommendations of the latest issue of the applicable standards and codes of the:

National Standards of Canada (NS Can)
Canadian General Standards Board (CGSB)
Canadian Standards Association (CSA)
American National Standards Institute (ANSI)
American Society for Testing and Materials (ASTM)

1.4 PERMITS AND FEES

.1 Obtain, submit, and pay for necessary local and/or provincial permits and inspections relating to the lifting device. Building permit where required, shall be by the Owner or its assigned Construction Manager. Submit to the local and/or provincial authority registration of elevating device and also pay all costs in connection therewith, including costs associated with any and all tests to be performed by the authority in order to lawfully license the VPL for use by the general public. Submit one (1) copy of all submission documents, test results, and approval certificates to the Consultant prior to *Date of Substantial Completion*.

1.5 WORK SCHEDULE

.1 All bidders must submit a proposed work schedule including time for removal of existing VPL, lead time required for approval drawings, manufacturing lead time after approvals, and time to complete on site activities at the time of bidding. Provide details with the Bid.

.2 Elevator portion of this Project is to commence on the date(s) established in strict accordance with the Owner's requirements and to be substantially completed and TSSA licensed not later than August 14, 2026. Refer to Article 1.5.5 below also.

.3 Unless a result of an Act of God or another cause beyond the control of the Contractor, the Contractor shall take all necessary actions and absorb any extra costs to meet the work schedule when the delays are caused directly by the Contractor.

.4 All work carried out by the Lift Contractor, including delivery of Lift material, shall be performed during regular working hours of days.

.5 School Year Restrictions: To ensure student safety and minimize disruption, on-site noisy work is strictly prohibited between the hours of 9:30 am and 3:30 pm, Monday to Friday. Summer Access: Full day access and work is permitted Monday to Friday between June 26 and August 14. Holidays: Work is excluded on statutory holidays unless approved in writing by the Owner.

1.6 MATERIAL AND EQUIPMENT

.1 Specifications on the make and model of all major components to be used in completing the Project to be submitted with the Bid.

.2 Brand names, trademarks, logos, or company name on any exposed elevating equipment to the public will not be permitted.

.3 Install all equipment in a professional and tidy manner. Secure all wiring in a neat and orderly fashion and label all components.

.4 Provide only new material and equipment designed specifically for elevator usage.

1.7 RELATED WORK BY THE GENERAL CONTRACTOR

General: The General Contractor shall provide all labour, materials, and services necessary to complete the following ancillary work required for the finished installation. All costs associated with this work shall be included in the General Contractor Base Bid.

.1 **Construction Facilities and Temporary Controls:** The General Contractor shall provide protection for floor openings and finishes. This includes the supply and installation of personnel barriers and plywood hoarding encasing the entire work area with a lockable door, temporary power, and lighting.

.2 **Tower Support:** Tower support is existing block structure. Confirm at time of shop drawing review, reactions and loads shown on the VPL layouts can be handled by existing structure.

.3 **Flooring:** Where requested by Owner, repair flooring at either landing damaged by VPL work.

.4 **Painting:** Where required, re-paint existing block wall finishes in colour specified by Owner to surfaces that have been affected by the VPL work.

.5 **Electrical:** General – Power requirements and location of all disconnect, switches, auxiliary contacts, and GFIC receptacles, to satisfy Contractor power characteristics and requirements as identified on General Layouts and shall include not less than the following:

- Confirm if existing 250 v, 30A disconnect meets with current Electrical Code and is suitable for VPL Contractor requirements for a 120 v, 20 A single phase dedicated electrical service.
- Include for any and all disconnections of the power, wiring, and conduit to the existing Lift Tower for removal of the existing Lift.
- Include for the modifications and/or relocation of the main disconnect and any junction boxes including conduits to wiring to the base of the new Lift Tower.
- Main fused disconnect to have auxiliary contact with 2–18 AWG conductors with wiring run from the auxiliary contact to the VPL Contractor's battery lowering unit.
- Provide dedicated building Ground wire in the main disconnect and to the hoistway Lift controller.
- Electrical power for elevator installation and testing.
- Install GFIC outlet in the pit.
- Provide guarded light fixture with switch in the pit.
- Provide a dedicated straight analog phone line (no auto-dialer on the line) 8' coiled at base of Lift for connection to phone in the VPL by VPL Contractor.
- Check and validate building lighting at the platform with VPL at the lowest landing to ensure lighting is not less than 100 lx at the VPL floor. Where lighting is less than 100 lx provide new overhead guarded light fixtures to meet with this minimum requirement.
- Check and validate building lighting at both landings to ensure lighting at upper level is not less than 100 lx measured at the floor and 200 lx at the lower landing. Where lighting is less than these values, provide new overhead light fixtures to meet with these lx levels.

1.8 SPECIFICATIONS AND DRAWINGS

.1 Within five (5) days of award, submit electronically (1) set of detailed shop drawings showing complete layout of all Lift equipment as required including the following as minimum:

- Location of machinery and all components.
- Loads to be carried on the building imposed by the VPL equipment and loading in the pit.
- Horsepower rating of motor and all electrical characteristics including recommended fuse size, ratings, and types, starting and running currents.
- Disconnects, switches, and all outlet locations.
- Car fixture and all lift finishes.
- All hoistway requirements, platform, and overhead dimensions.

.2 Submit with detailed shop drawings all required work by others indicating sizes, quantities, and locations of ancillary equipment and all other relative data to suit a complete elevator installation. Failure to provide a complete and comprehensive listing of work by others will result in Contractor being held responsible for said omitted work, including all labour and material costs incurred by other trades to complete same.

1.9 WARRANTY & MAINTENANCE

.1 A warranty of (12) months minimum on all parts shall be provided by the Lift manufacturer. Replacement of parts under this Warranty shall be carried out at no cost to the Owner whatsoever and cover as a minimum material, labour, truck expenses, and all travel time.

.2 (12) month maintenance warranty shall be included in base contract amount and shall commence from *Date of Substantial Completion*.

1.10 **CHANGES IN THE SCOPE OF WORK**

.1 In the event the Owner changes the scope of work in any manner once the contract has been awarded, the contract price may be adjusted accordingly. Any such change will not invalidate the contract.

.2 Contractor shall obtain from the Owner, written approval and acceptance of all costs associated with any contemplated change prior to commencement of such work.

.3 Any such change shall include all overhead, mark-up and profit.

1.11 **NON-PROPRIETARY EQUIPMENT AND TOOLS**

.1 Only non-proprietary equipment will be accepted by the Owner and installed. This will include but not limited to controller, drive, motor, fixtures, and any inspection tools. Contractor to provide at the time of Tender a letter stating all equipment being installed is non-proprietary to the satisfaction of the Owner.

.2 Provide prior to *Date of Substantial Completion*, all maintenance, repair, adjusting, and diagnostic or inspection tools to the Owner for review and approval.

1.12 **MAINTENANCE AND OPERATING MANUALS**

.1 Prior to the *Date of Substantial Completion*, as established by the Consultant, provide to the Owner one (1) electronic digital copy and one (1) hard copy set of Maintenance and Operating Manual information, amended site specific and to include the following;

a. Complete set of electrical wiring diagrams.

b. Recommended lubrication and maintenance check chart of all major components and associated lubrication products to be used.

c. Complete set of “As-built” approval drawings, latest revision, including main layout, and cab drawings neatly folded and inserted into the manual.

d. Complete description of UPS Emergency Battery Rescue Feature Lowering operation and sequencing.

e. Copy of TSSA Registration documentation for Lift and most recent TSSA Inspection Certificate.

1.13 **SEPARATE PRICES**

.1 Separate prices requested herein, <u>are not</u> included in the Tender Price and at the sole discretion of the Owner, may, or may not be, added to the Contract amount for the entire term of the Contract.

.2 Separate pricing shall be provided with the Tender.

.3 Separate pricing relating to Post Warranty Maintenance Services as outlined in Article 1.1.9 shall remain valid for the entire term of this Contract.

.4 Separate pricing shall be inclusive of all Contractor overhead, margin, profit, taxes, labour and materials to carry out the prescribed task or project requirement. H.S.T. shall not be included.

.1 Maintenance every three (3) months from expiration of 12-month Maintenance Warranty included in base pricing. Note: Maintenance pricing identified in the Bid Form shall be based on the 1st year only of a five (5) year agreement with annual escalation not to exceed 3% and in accordance with Owner's Maintenance Service requirements.

1.14 **BARRIER FREE REQUIREMENTS -** Conform to in every regard as required by Code.

2. GENERAL LIFT INFORMATION

2.1 DESCRIPTION

VERTICAL PLATFORM LIFT	
Number:	One (1)
Elevator Type:	Vertical Platform Lift Indoor, Normal Usage
Enclosure:	Yes, Supplied by Lift Contractor
Enclosure Finish:	Standard Beige
Nominal Speed:	0.081 m/s (16 fpm)
Capacity:	340 kg (750 lbs)
Existing Rise:	1006 mm (39.61”)
Hoistway Support:	One side of block hoistway
Existing Hoistway Inside Clear:	1276 mm w x 1625 mm d
Pit:	76 mm (3”)
Number of Stops, Openings:	2 stops, 1F/1R
Landing Designations:	“LL”, “UL”
Operation:	Keyed, Constant Pressure Operation
Controller:	Low Voltage, Non-Proprietary, Relay Logic
Type of Drive:	2:1 Chain Hydraulic
Motor:	3.0 HP minimum, 120 VAC
Hall Buttons:	Keyed at both landings
Cab Clear Inside Platform Minimum:	Approximately 914 mm w x 1524 mm d
Door Type:	Full Height Manual Door @ LL // Gate @ UL
Door Dimensions (LL & UP):	LL @ 914 mm w x 2032 mm h (36" w x 80" h) UL @ 914 mm w x 1067 mm h (36” w x 42” h)
Car Station:	One Station with Hands-free Phone
Emergency Lowering:	UPS, Battery Lowering
Lift Flooring by VPL Contractor:	Non-skid

2.2 VERTICAL TRANSPORTATION BUILDING REFERENCE

FLOOR DESIGNATION	FLOOR TO FLOOR	OPENINGS
LL, UL	1006 mm	1 F / 1R

F = FRONT OPENING
R = REAR OPENING

2.3 ARCHITECTURAL FINISHES

Floor Level Designation	DOOR FRAME	DOOR	FIXTURE
UL	Painted	Painted Steel Gate	SS KEYED
LL	Painted	Painted Steel Plexiglass Insert Door	SS KEYED

3 PRODUCTS AND DESCRIPTION

3.1 CONTROLLER AND LEVELING

.1 Supply and install CSA approved relay logic non-proprietary controller located in the supporting mast.

.2 Pre-wire and test all functions of controller before shipping.

.3 All components within the controller including fuses, relays, and contactors are to be clearly identified.

.4 Controller wiring to be installed in a professional and neat manner with proper connecting devices and terminal blocks permanently labeled. Labels shall correspond with electrical wiring diagrams.

.5 Ground controller and all equipment to building Ground. Building Ground by others. The occurrence of a single accidental ground or short shall nor defeat any safety device and shall not permit the elevator to start or run if the hoistway door or gate interlock is unlocked.

.6 Ensure controller will restart after loss of normal power.

.7 Provide emergency lowering by battery power from the car control.

.8 The lift shall be provided with an anti-creep device which will maintain the carriage level within ½'' (12.69 mm) of the top landing.

.9 All limit switch and leveling device switches shall be located in a position to be inaccessible to unauthorized persons. They shall be located behind the mast wall and be accessible through removable panels.

.10 Normal terminal stopping devices shall be provided at top and bottom of runway to stop the car positively and automatically.

3.2 EMERGENCY OPERATION

.1 The car shall be equipped with a battery operated light fixture, emergency battery lowering device and alarm in case of normal building supply failure. The battery shall be of the rechargeable type with an automatic recharging system.

.2 A new manual lowering device shall be located outside the hoistway in a lockable box at lowest landing. Box cover shall be keyed differently than any other operational key.

.3 Provide not less than 3 spare keys for this box at time of turnover.

3.3 WIRING

.1 All wiring and electrical connections shall comply with applicable codes. Insulated wiring shall have flame-retardant and moisture-proof outer covering and shall be run in conduit or electrical wire-ways if located outside the unit enclosure. Quick disconnect harnesses shall be used when possible.

3.4 PUMP UNIT

.1 The pumping unit shall be enclosed in the tower.

.2 Pump unit shall incorporate smooth stops at both landings, adjustable pressure relief valve, manually operable down valve to lower lift in the event of an emergency, pressure gauge isolating valve, manually operable, gate valve to isolate cylinder from pump unit, and electrical solenoid for down direction control.

.3 The manually operable down valve shall be activated from outside of the hoistway through a keyed box.

3.5 CYLINDER AND PLUNGER

.1 The cylinder shall be constructed of steel pipe of sufficient thickness and suitable safety margin. The top of the cylinder shall be equipped with a cylinder head with an internal guide ring and self-adjusting packing.

.2 The plunger shall be constructed of a steel shaft of proper diameter machined true and smooth. The plunger shall be provided with a stop electrically welded to the bottom to prevent the plunger from leaving the cylinder.

3.6 CAR GUIDE RAILS

.1 Steel guide rails and brackets shall be used to guide the platform and sling. Guide rails shall form part of the structural integrity of the unit and be integral to the mast enclosure, ensuring stability and minimum platform deflection when loaded.

3.7 CAR SLING AND GUIDE SHOES

.1 Car sling shall be fabricated from steel tubing with adequate bracing to support the platform and car enclosure.

.2 Roller or sliding guide shoes shall be mounted on the top and bottom of the car sling to engage the guide rails.

.3 Provide Type “A” safety break.

3.8 ROLLER CHAINS AND GUIDE YOKE

.1 Two (2) No.50 roller chains with 5/8’’ pitch. Minimum breaking strength 6100 lb (2773 kg) each.

.2 The 2:1 guide yoke/sprocket assembly shall be supplied with two (2) sprockets, roller guide shoes, bearings and guards.

3.9 HALL DOORS AND RELATED EQUIPMENT

.1 Upper and lower landing doors to be manually operated.

.2 Provide all interlock, hinges, and hardware necessary for complete manual operation.

.3 Provide and affix labeling to both inside and outside face of hall doors the numbers “LL” and “UL”.

.4 Provide interlocks or electric door-strike conforming to ASME A18.1 b 2000.

3.10 HALL STATIONS

.1 Provide surface mounted key restricted call stations constant pressure at both lower and upper level.

.2 Hall buttons to be installed at accessibility height.

.3 Hall buttons shall be labeled.

3.11 CAR CAB

.1 Side guards of platform shall have a steel frame with a powder coat finish and steel panel inserts to a minimum of 42'' (1,067 mm).

.2 No platform gate required to allow for ease of operation.

.3 Lift shall have manufacturer's standard non-skid flooring.

.4 A single round handrail with both ends returned to the side guard shall be located on the control wall of the carriage.

3.12 CAR OPERATING PANEL

.1 Car Operating Panel in #4 stainless steel finish shall consist of:

1. Constant pressure illuminated buttons.
2. Emergency stop/alarm illuminated button.
3. Emergency light.
4. Auto-dialer phone and cabinet.

3.13 LIFT ENCLOSURE

.1 Lift Hoistway enclosure shall be provided by the Lift Contractor.

3.14 LICENSING, INSPECTION AND LIFT READINESS

.1 Lift Contractor shall immediately after final adjusting activities are complete, schedule and carry out on site within 5 working days a TSSA inspection. Advise General Contractor and Consultant of initial Inspection date.

.2 Lift Contractor shall provide copy of TSSA inspection certificate to both General Contractor and the Consultant upon completion of initial licensing inspection. Any General Contractor and/or Lift Contractor directives issued by the Authority shall be carried out expeditiously and without delay. Lift Contractor shall keep both General Contractor and Consultant informed at all times of completion of Lift directives and where re-inspection is required, advise General Contractor and Consultant of re-inspection date.

.3 Following TSSA Inspection and licensing of Lift, Lift Contractor shall vacuum and clean thoroughly entire VPL including controller and pit floor.

.4 Remove <u>all</u> protective wrapping from all finishes including but not limited to surfaces all around the car station and handrails.

.5 Following Lift licensing, Consultant shall inspect Lift for conformance to contract specifications and any deficiencies issued in writing to either the General Contractor and/or Lift Contractor shall be completed within 3 business days of issuance of such deficiencies.

.6 Consultant shall verify all deficiencies have been satisfactorily completed before the scheduling, training, and handover of the Lift to the Owner - refer to 3.15.

3.15 LIFT "OFFICIAL" TURNOVER AND TRAINING

.1 All keys required for the operation of the Lift and copies of all maintenance and operational data inclusive of Warranty Certificate shall be turned over to the General Contractor prior to Date of Substantial Completion.

.2 Provide at time of turnover, not less than eight (8) spare keys for the hall stations.

.3 Include in base pricing of new VPL, and prior to "official" handover, two (2) hours for on-site demonstration and training on the safe use and operation of the VPL in accordance with Regulations, as well as the complete overview and review of all turned over documentation.

.4 This demonstration and training shall be coordinated by the Lift Contractor directly with the Owner at a time convenient with the Owner's schedule. The training shall be performed by qualified Lift Contractor personnel having extensive experience with all aspects of the controls and equipment installed. Owner shall be responsible for keeping and maintaining documentation of those trained for future TSSA reference.

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