

## PART 1 GENERAL

### 1.1 DESCRIPTION

- .1 The project includes Hall 'A', West Corridor and Loading Dock Ramp Retrofits at the Enercare Centre, Toronto, Ontario.

## PART 2 SUMMARY OF WORK

### 2.1 BASE BID

- .1 Work of this Contract includes, but is not limited to, the following items, not necessarily listed in sequential order, for which the detailed descriptions, intent and requirements for the work items are contained in these Contract Documents including specifications, drawings and reference building codes and standards.
- .2 All materials referenced are to be new, supplied and installed by the Contractor, unless otherwise noted.

**Item 1.1: Mobilization, demobilization, general requirements and permits**  
Provide all the labour, equipment and material necessary to mobilize, demobilize, to provide site safety, dust control and administration for the work on site and to conform to all requirements identified in specification section 01 30 00 "General Instructions". Contractor shall perform utility locates and slab scanning prior to any removals or repairs at all work areas. Contractor is responsible for acoustic sounding review of the entire work areas and marking out locations of concrete repairs for the consultant's review and verification. All repair locations shall be marked on as-built drawings for the consultant's review and approval. Contractor shall account for all costs related to follow the Owner's Construction Waste Management Plan (see Schedule F). Contractor shall account for all costs/premiums pertaining to nightwork and working within the allowable hours provided. Contractor shall account for any costs pertaining to additional re-mobilizations and de-mobilizations that may be required to complete the work within the allowable work hours and period.

**Item 1.2: Bonds**  
Provide bonds in accordance with Client requirements.

**Item 2.1: Supply and install engineer-designed temporary ventilation system**  
Provide all labour, equipment and material to supply and install new temporary engineer-designed ventilation system for any interior repairs at Hall A, the west corridor or the parking garage underneath the work area. Contractor shall ensure that dust does not escape the work area into the building and shall account for installation of any tarps, filter fabric, fencing, filters, etc. to seal the work area.

- Item 2.2: Localized topside concrete repairs**  
Provide all labour, material and equipment required to repair topside concrete delamination and deterioration, as indicated in the Project Specification Sections and shown in Detail Drawings. The repair unit rate includes installation and removal of temporary shoring, temporary removal and reinstatement all mechanical and electrical fixtures that interfere with the repair and the supply and installation of supplemental reinforcement including embedment adhesives, welding and lapping, as directed by Consultant. Contractor shall ensure that exposed repair concrete has a polished finish at the top surface to match adjacent/ existing. All repair concrete shall be high-early strength mix.
- Item 2.3: Localized soffit concrete repairs**  
Provide all labour, material and equipment required to repair soffit concrete delamination and deterioration, as indicated in the Project Specification Sections and shown in Detail Drawings. The repair unit rate includes installation and removal of temporary shoring, temporary removal and reinstatement all mechanical and electrical fixtures that interfere with the repair and the supply and installation of supplemental reinforcement including embedment adhesives, welding and lapping, as directed by Consultant. All repair concrete shall be high-early strength mix.
- Item 2.4: Localized through-slab concrete repairs**  
Provide all labour, material and equipment required to repair through-slab concrete delamination and deterioration, as indicated in the Project Specification Sections and shown in Detail Drawings. The repair unit rate includes installation and removal of temporary shoring, temporary removal and reinstatement all mechanical and electrical fixtures that interfere with the repair and the supply and installation of supplemental reinforcement including embedment adhesives, welding and lapping, as directed by Consultant. Contractor shall note that slab thickness is approximately 350mm thick. Contractor shall ensure that exposed repair concrete has a polished finish at the top surface to match adjacent/ existing. All repair concrete shall be high-early strength mix.
- Item 2.5: Localized vertical concrete repairs**  
Provide all labour, material and equipment required to repair vertical concrete delamination and deterioration, as indicated in the Project Specification Sections and shown in Detail Drawings. The repair unit rate includes installation and removal of temporary shoring, temporary removal and reinstatement all mechanical and electrical fixtures that interfere with the repair and the supply and installation of supplemental reinforcement including embedment adhesives, welding and lapping, as directed by Consultant. All repair concrete shall be high-early strength mix.

- Item 2.6: Localized concrete beam repairs**  
Provide all labour, material and equipment required to repair beam concrete delamination and deterioration, as indicated in the Project Specification Sections and shown in Detail Drawings. The repair unit rate includes installation and removal of temporary shoring, temporary removal and reinstatement all mechanical and electrical fixtures that interfere with the repair and the supply and installation of supplemental reinforcement including embedment adhesives, welding and lapping, as directed by Consultant. All repair concrete shall be high-early strength mix.
- Item 2.7: Route and seal cracks**  
Provide all labour, equipment and material to route and seal cracks at the entire west corridor and Hall 'A' work area where directed by the Consultant. Include for reviews by the manufacturer for surface preparation and application. Cracks shall be routed to 12mm wide x 12mm deep or as recommended by the manufacturer. Concrete crack sealant shall be clear and compatible with concrete sealer material. Contractor shall perform mockup for consultant, manufacturer and owner review to confirm material and application. No additional costs will be entertained for material changes as directed by the Consultant. Termination sealant is not included in this item.
- Item 2.8: Supply and install new concrete sealer at entire Hall 'A' and West Corridor work area**  
Provide all labour, equipment and material to supply and install new clear top-surface applied clear concrete sealer and hardener in accordance with project specification and drawing requirements. Refer to the project drawings for upturn and termination details. Include for all reviews by the manufacturer. Include for all reglets, installation of sealant at all upturns and termination and metal surfaces. Note: termination detailing of the hot applied waterproofing & sealer system at the ramp loading dock door shall be reviewed by the consultant and the hot applied waterproofing & sealer manufacturers. Contractor shall perform mockup for consultant, manufacturer and owner review to confirm material and application. No additional costs will be entertained for material changes as directed by the consultant. Terminate at metal surfaces/upturns via reglets and cant sealant.
- Item 2.9: Localized garage painting**  
Provide all labour, material and equipment required to paint exposed concrete elements to match existing, where directed by the consultant, include for two coats plus primer. Colours shall match existing and shall be in accordance with City of Toronto by-law requirements.
- Item 3.1: Removal of asphalt topping, heating cables and waterproofing**  
Provide all labour, equipment and material to remove existing topping, waterproofing and heating cables & controls from the ramp slab within the work area to expose the concrete ramp slab. Refer to Appendix A drawing for extent of electrical work removals.

Excavate and remove asphalt pavement and bedding/ native material min. 1m wide x entire width of the ramp at the bottom of the ramp slab to accommodate ramp downturn waterproofing. Contractor shall assume an existing topping thickness of 50mm. Dispose of excavated and removed materials off-site.

**Item 3.2: Supply and install new heating cables**

Provide all labour, equipment and material to supply and install new heating cables and equipment in accordance with Appendix A drawings and specifications, including all materials, connections to existing power system, equipment and sensors.

**Item 3.3: Supply and install new hot applied waterproofing**

Provide all labour, equipment and material to install new two-ply hot applied waterproofing to the ramp slab, in accordance with project specifications and drawings, including all downturns, upturns on curbs, terminations, reinforcement, reglets, flashing and protection boards. Include for reviews by the manufacturer regarding surface preparation and application and submission of approval letter. Note: termination detailing of the hot applied waterproofing & concrete sealer system at the ramp loading dock door shall be reviewed by the consultant and the hot applied waterproofing & concrete sealer **or P.U.M.A.** system manufacturers.

**Item 3.4: Supply and install new asphalt topping**

Provide all labour, equipment and material to install new compacted 50mm thick HL3HS asphalt topping at the ramp slab, in accordance with project specifications and drawings. Include in this item installations of U-Fill at the excavated work area at the bottom of the ramp to the top of the asphalt pavement. Include for installation of compacted HL8 base course and HL3 top course asphalt at the bottom of the ramp, assume 100mm of HL8 asphalt and 50mm of HL3 asphalt or to match existing on-site. Hot seal all joints at the culmination of repairs. Install new traffic marking to match existing and re-coat ramp surfaces to match existing, where removed.

**Item 3.5: Guard rail replacement**

Provide all labour, equipment and material to replace the guard rail assembly at the south side of the ramp work area. Chip and pocket out the existing embedded guard posts at the south side curb, 200mm x the width of the curb x the depth of the embedded portion. Pour back new concrete at the pockets, including installation of 15M dowels and reinforcing steel in each pocket. Supply and install new top-mounted, galvanized metal picket fencing, including all anchorage and factory pre-painted, colour to be selected by the Owner. Submit engineer-stamped shop drawings for the new guard rail assembly and anchorage.

**Item 3.6: Localized concrete nosing repairs**  
Provide all labour, material and equipment required to repair concrete nosing delamination and deterioration at the loading dock entrance door and loading dock ramp curb, as indicated in the Project Specification Sections and shown in Detail Drawings. The repair unit rate includes installation and removal of temporary shoring, temporary removal and reinstatement all mechanical and electrical fixtures that interfere with the repair and the supply and installation of supplemental reinforcement including embedment adhesives, welding and lapping, as directed by Consultant. Contractor shall ensure that exposed repair concrete has a polished finish at the top surface to match adjacent/ existing. All repair concrete shall be high-early strength mix.

## 2.2 ADDITIONAL PRICE ITEMS

**Item S1: Additional route and seal cracks at top surface of the slab corresponding to separate price waterproofing areas**

Provide all labour, equipment and material to route and seal additional cracks at the west corridor and Hall A work area pertaining to Item 2.7 at the location of the P.U.M.A. waterproofing system installation in Item S2. Include for reviews by the manufacturer for surface preparation and application. Cracks shall be routed to 12mm wide x 12mm deep or as recommended by the manufacturer. Termination sealant at upturns and metal surfaces is not included in this item.

**Item S2: Supply and install P.U.M.A. waterproofing system at indicated west corridor and Hall A work areas**

Provide all labour, equipment and material to supply and install new polyurethane methacrylate waterproofing membrane and traffic topping system to the specified thickness and at the locations shown on the project drawings, in accordance with project specification and drawing requirements. Refer to the project drawings for upturn and termination details. Include for all reviews by the manufacturer. Include for all reglets, installation of sealant cant at all upturns and termination and metal surfaces. Wear course colour shall be as selected by the Owner. Note: termination detailing of the hot applied waterproofing & P.U.M.A. at the ramp loading dock door shall be reviewed by the consultant and the hot applied waterproofing & P.U.M.A. waterproofing manufacturers, depending on if P.U.M.A. waterproofing proceeds. Contractor shall account for credit for not installing concrete sealing system at this work area. Contractor shall review termination detail of new P.U.M.A. waterproofing to new concrete sealing system with manufacturers of both systems.

**Item S3: Remove and replace west corridor suspended slab drains**

Provide all labour, equipment and material to remove existing suspended slab drains at the west corridor and approximately 1m of piping per drain. Chip approximately 600mm x 600mm of concrete to remove existing drain body assemblies, supply and install new drain assemblies, piping, elbows, connections and hangers.

Replace insulating wrap to match existing, where present. Contractor shall ensure repair concrete is high-early strength mix. Drains shall be WATTS FD-490-F-90 or approved equivalent.

- Item S4: Replace deteriorated drain piping**  
Provide all labour, equipment and material to replace drain piping and insulation at the underside of the Hall A and west corridor work area to match existing, where directed by the consultant. Materials shall match existing size and dimensions, including all connections, hangars, supports, etc. Contractor shall ensure that exposed repair concrete has a polished finish at the top surface to match adjacent/ existing. Piping shall be Class 4000 Cast Iron or PVC (by IPEX or approved equivalent) to match existing. Replace insulating wrap to match existing, where present.

END OF SECTION 01 11 13