

Solicitation No. EQ715-221099/A – 004

Port Weller Search and Rescue Station Project
St. Catharines, Ontario

QUESTIONS AND ANSWERS

Q19: Can you please confirm if the controls for this project are meant to be stand-alone systems or if there is BAS required for this project?

A19: No BAS, the mechanical equipment is controlled by stand-alone system.

Q20: Can you please confirm if seismic restraints are required for this building?

A20: Yes, seismic restraints are required. The installation shall meet the requirements described in CAN/CSA S832-14 (R2019) Seismic Risk Reduction of Operational and Functional Components (OFCs) of Buildings.

The equipment ties should be designed as per and for the force given in OBC 4.1.8.18 Item (1).

Equipment restraint design is required when a building is considered “Post Disaster Building” and factor $I_e I_a S_a(0.2) < 0.35$.

In our case $I_e I_a S_a(0.2) < 0.429$, refer to structural drawing S001 Item 18. So seismic restraint design is required.

INTERNAL PRESSURE CATEGORY: 3

$C_e = 0.9$ TO 0.96

FACTORED BASE SHEARS (WIND):

UTILITY / GARAGE / WORKSHOP	$V(NS) = 198$ kN	$V(EW) = 172$ kN
LIVING QUARTERS	$V(NS) = 218$ kN	$V(EW) = 175$ kN

18. SEISMIC:

$S_a(0.2) = 0.34$	PGA = 0.200
$S_a(0.5) = 0.190$	Rd = 1.5
$S_a(1.0) = 0.069$	Ro = 1.3
$S_a(2.0) = 0.023$	$I_e = 1.0$

$I_e I_a S_a(0.2) = 0.429$

SITE CLASSIFICATION = D

SEISMIC FORCE RESISTING SYSTEM (SFRS): CONVENTIONAL CONSTRUCTION - BRACED FRAMES

FACTORED BASE SHEARS (SEISMIC):

UTILITY / GARAGE / WORKSHOP	$V(NS) = 80$ kN	$V(EW) = 80$ kN
LIVING QUARTERS	$V(NS) = 130$ kN	$V(EW) = 130$ kN

Q21: Could you confirm that you will be using a civil contractor for all of the domestic water, buried sanitary, new septic bed, and any other services shown on page M101?

A21: Typically, work for all underground services outside the building, including mechanical piping services, are completed by a civil contractor. General Contractor is to carry all sub-contractors needed to complete the scope of work in the Contract Documents.

Q22: The drawings indicate that it is the contractors responsibility to clear snow and ice from the entrance driveway during the construction period. Is there an existing service contact/contractor that we could call to get cost estimates.

A22: No there is not an existing service contractor used at this facility.

Q23: Can you please provide clarification on the following:

In regards to the following note on E100

“The General Contractor is responsible to unload deliveries of all solar flower equipment Infrastructure and install on site including concrete slab base and all power service hook up.

- a. Is the Equipment being supplied by the owner? If yes please provide cut sheet/ specifications in order to properly price the unloading and installation of the equipment
- b. If it is to be supplied by the GCs, please provide specifications?

A23: The equipment is being supplied by the owner. See attached Transport & Delivery document that details the size, weight and all details for uploading and uncrating. Requirements for electrical and the slab base are indicated in the tender documents.

Q24: Is the primary structural hot dipped galvanized?

A24: Please refer to drawing S201, Issued for Tender, dated 2021.07.26, ROOF PLAN NOTES. Note number 8 lists steel members that need to be galvanised.

8. HOT DIPPED GALVANIZED STEEL:

- 8.1. CANOPY STEEL DECK
- 8.2. SIX HSS89x89 CANOPY BEAMS
- 8.3. ONE W200 CANOPY BEAM
- 8.4. ONE HSS89Ø CANOPY COLUMN
- 8.5. TWO CONTINUOUS CANOPY ANGLES L102x76 CANOPY ANGLES

Q25: The structural drawings indicate the concrete slab on grade c/w reinforcing details. The architectural drawings indicate to refer to structural for details, however there appears to be sections showing air vapour barriers, rigid insulation below the slab but don't identify the requirements. As well the granular base below the slab is shown but not identified for material/thickness.

A25: Structural documents, Architectural documents and Geotechnical Appendix documents must all be reviewed in conjunction, as noted on the respective documents.

Refer to the *Final Geotechnical Investigation Report NO.124-B-0017786-0-01-100-GE-R-0001-01* prepared by Englobe dated October 16, 2019, chapter 8 FLOOR SLAB on page 9. (Appendix A of Specifications package).

The thickness of the granular fill depends on the soil condition, subject of inspection and approval by the geotechnical consultant. Minimum thickness is given on structural drawing, refer to F1/S300 on the drawing S300 dated 2021.07.26, Issued for Tender.

Rigid insulation thickness and extent are specified on the above-noted geotechnical report.

Q26: After reviewing the pumps spec. in section 22 10 10 as well as the pump schedule in tender drawings. I could not find the pump's approved manufacturer list for this tender, could you please advise?

A26: In accordance with PSPC tender policies, proprietary information (ie. manufacturer name) is not permitted on the contract documents, only performance criteria requirements. Products must meet specifications.

Q27: The demolition drawings note 15 indicate to scan the floor of the existing building and remove the slab/existing services. Are there any drawings or details on what existing services may be encountered so that we can quantify the amount of concrete removal and replacement may be required?

A27: No existing archival drawings or details available. The requirement to complete a scan of the slab is for informing as-found conditions prior to demolition.

Q28: Structural plan mentions infloor heating in the Garage/Utility slab however I haven't seen it anywhere else. Can you confirm if it is being installed in this slab?

A28: Only heat trace at particular locations at the Garage/Utility building slab. Refer to Mechanical and Electrical drawings.

Q29: The demo note #15 "Concrete slab Demolition" is noted for the entire area of the Historic building slab. Does this refer to the entire slab being removed and replaced or are we only removing section for the new services?

A29: Entire area of the existing slab as noted, to be scanned for as-found conditions. Existing concrete slab to be cut and reinstated at locations of existing services to be removed, and where new services are to be installed. Slab to be patched and repaired at any locations with finished surface variations greater than 6mm, as noted.