

## **QUESTIONS AND ANSWERS NO. 7**

#### ISSUED ON September 14, 2018

Q1	Details of Seatwall and Stairs on Grade shown on Landscape drawing L9.40 differ from what's on Structural drawings S0.07 and 4 & 5/ S4.02. Please confirm which drawings and details to use.
A1	Please refer to landscape for seatwall and stair details and refer to structural drawings for footing information, reinforcing and notes for compacted subgrade.
Q2	The section 1.8.2.1 of 03 41 43, Precast Concrete for Bridges, indicates that precast concrete manufacturers be "certified to CPCI Certification Program and meeting requirements of CSA A23.4". APS Precast is certified by CSA to CSA 23.4, though not by CPCI. APS Precast is also certified by PCI Precast/Prestressed Concrete Institute) to PCI MNL 116 and 117. Please confirm that APS Precast's certification by CSA is acceptable.
A2	Manufacturers are required to be certified to CPCI Certification Program and meet the requirements of CSA A23.4; including appendices A and B, and with PCI MNL 116 and 117 certifications requirements.
Q3	Due to the complexity of the steel fabrication involved in this project, we are asking that the steel fabricators be specified as Division 1 Certified only. This will provide the quality of the finished product and certainty of delivery that the City requires for a project of this nature.
A3	Please refer to Q&A No. 5.
Q4	<ul> <li>Can you provide more clarification regarding Q&amp;A No. 3, Q27/A27:</li> <li>1. Does the response indicate that if Vehicular rated luminaries are not available, that just Solo Spurts (vehicular) would be acceptable - read: no Luminary JUST Solo Spurt?</li> <li>2. What type of Vehicular traffic is expected? Is it light like lawnmowers/strollers/power chairs-wheelchairs or are they talking maintenance vehicles? This makes a big difference.</li> <li>3. We are really struggling to get this right. Luminaries are NOT vehicular rated. There is another option that might be suitable for light vehicular BUT we need to know what the intention is for vehicular traffic.</li> </ul>



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A4	<ol> <li>Yes, that is correct. Luminaries are desirable, however, sourcing a product that is vehicular rated for maintenance vehicles has been a challenge.</li> <li>The type of vehicles expected in the plaza are maintenance vehicles, trucks, boom lifts etc.</li> <li>See above.</li> </ol>
Q5	<i>Is the "wood deck seating at tree" (1/L9.30) now being replaced with Western Red Cedar along with all the benches, or is it still yellow cedar?</i>
A5	Yes, please refer to Q&A No. 4 and replace Yellow Cedar with Western Red Cedar.
Q6	<i>Please indicate exact number of Bistro Tables and Chairs - Legend says Typ. of 10 - I only count 4. It states they are found on both the upper and lower plazas; I can only locate them on the upper plaza.</i>
A6	There will be 4 sets on the upper terrace and 6 sets at in the plaza adjacent to the café. Each set is comprised of (1) bistro table and (3) chairs. In total there should be (10) bistro tables and (30) chairs.
Q7	Swing doors in curtain wall, are they a phantom door or can they be typical narrow style aluminum. Glass manufacturers don't recommend opaci coated glass in vision areas as pinholes of light show through - double opaci coated unit can be used but can't guarantee final product.
A7	Intent is for phantom style door. Opaci coat can be applied as part of an insulated glazing spandrel.
Q8	Addendum #2 Item #2.3.1.3 - Shop Finishing; Exposed Standard Structural Steel the Surface Preparation Standard has been changed from SSPC-SP10 to SSPC-SP16. Is SSPC-SP16 "Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel,
	Stainless-Steels and Non-Ferrous Metals" to replace SSPC-SP10 as the specified
	surface preparation standard for Item #2.3.1.3 - Shop Finishing; Exposed Standard
	Structural Steel? Or is SSPC-SP16 actual applicable to Item 2.4 Shop Finishing; Architectural Exposed Structure Steel, as the only stainless steel that requires surface preparation is Stainless Intermediate Flat Bar Rails identified in Detail 4 on Drawing A521, please clarify?
A8	As per Addendum #2 modification to Section 05 05 19, SSPC-SP16 is the required surface preparation for exterior steel receiving FEVE coating, as well the stainless components indicated on drawings to receive FEVE coating.
Q9	Refer to Addendum #1 - S0.02 Steel Notes & S6.03 - Bridge Steel Truss Notes: Grade A500 C is now acceptable for the RHSS 152x9.5. But the special sizes of HSS

	406x305x15.9 (Skyframe), HSS 406x203x12.7 & RHSS356x13 (Outlook) are all from the US and they are only rolled to Grade A500C ~ Please confirm that this is acceptable.
A9	ASTM A500 Grade C is an acceptable alternate material grade for HSS 406x305x15.9, HSS 406x203x12.7, and HSS 356x13.
Q10	<i>Refer to 1&amp;2/A820 Guardrails: Are both the Vertical 9mm dia. S.S. Rods and the Top &amp; Bottom S.S. flat-bars coated as per section 09 90 00-3.9.3 4 coating system?</i>
A10	No, they are treated differently. While the horizontal SS flatbars are coated to match the other flatbars on the bridge, the vertical SS rods are not coated. Refer to 6-A820.
Q11	Note that Luminaries are NOT vehicular rated. Also of note: the Solo Spurt ground sprays are considered to be "Robust" they cannot provide official certification to support vehicular rating."
A11	Noted.
Q12	Drawing A521 detail 5/4 show conflicting info. One is a steel flatbar picket and the other is a stainless steel rod."
A12	The material of the pickets varies between coated flatbar and SS rods across the length of the bridge. Material locations are clearly shown on the elevations. Refer to A420 - A423.
Q13	Flatbar top rail is not specified, are we to assume a standard size?
A13	The flatbar size is specified on Detail 1, S6.11.
Q14	<i>The 2 HSS items have been classified as unobtainable by the steel contractors. They are:</i>
	a. 16 X 8 X 0.5 ( HSS 406 x 203 x 12.7 )
	b. 14 X 0.5 ( HSS 356 X 13 )
	All our steel distributors have told us that there is no way we can get these pieces rolled, because they do not meet the minimum tonnage to even be considered for rolling. The only proposal we can come up with is to make the rectangular HSS as a Box beam and to re-specify the round HSS to a new, available Pipe. The main limiting factor is the grade of steel being (and specified) as W350. Please advise."
A14	ASTM A500 Grade C is an acceptable alternate material grade for HSS 406x305x15.9, HSS 406x203x12.7, and HSS 356x13.

<ul> <li>noticed Answer 32 in Q&amp;A No. 2 for the project mentions the 3 towers are enclosed. I understand that this would mean the children wouldn't be ablout of the tower and consequently this should mean the fall height requir would be less than the 24ft fall height stated for the highest tower. Can please clarify?</li> <li>A15 Based on the current CSA Z614 guidelines there is no exemption of fall regardless of the nature of the enclosed design. In an effort to maintain practices the rubber surfacing around the towers is to be rated to the maximum height provided by the supplier, and shall be no less than 12 fee height.</li> <li>Q16 Can I get more information on the ALUMINUM gate shown on 5/A003? What members do they want it made from? IE: What are the vertical members? horizontal members?</li> <li>A16 Aluminum Gate to be delegated design by Contractor         <ul> <li>Vertical Louvres to be approx 4" x 1" extruded tubes</li> <li>Horizontal and vertical supporting members to be approx. 2 x 4" extruded tubes</li> <li>Alum. Finish to be Powder-coated with colour to be agreed</li> </ul> </li> <li>Q17 Can you please provide more information on the SKY FRAMES and what we expected to provide? The structural just shows a simple frame of HSS, not more. Architectural (Landscape L9.70)shows:         <ul> <li>Plates (12x100) welded to the edge of the HSS to create a channel. the weld detail on this? Too much welding and they will curl/bend</li> <li>Painted steel movable beam with end caps. What is this member?</li> <li>Pulleys cables etc incorporated into this top header beam? How is incorporated inside the HSS?</li> </ul> </li> </ul>		
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	Q18	A820 sec 1 calls out a SS nut & Washer (Tamper Proof). Structural does not call out SS threaded stud. You cannot have two dissimilar metals. Please advise.
A18 The threaded stud, washer, and tamperproof nut are all to be stainless	A18	The threaded stud, washer, and tamperproof nut are all to be stainless steel.

Q19	Regarding Q&A No. 3, Q7/A7: The basalt slabs of that size can exceed the weight limit that people can carry safely. At a certain weight, machinery would be required to transport and place the stone. The pavers weight specified before were roughly 80 pounds. The new maximum slab sizes can reach around 600 pounds. Is the design going to take that in to consideration?
A19	The size and layout of the basalt slabs will be determined when the final layout of the water jets of the decorative water feature is determined.
Q20	Regarding Q&A No. 3, Q7/A7: The holes that are required for the water jets will need to be drilled to match their position. This will become very difficult to match properly as the sizes of the slabs increase. Are we responsible for drilling them or will they be done by the water feature team?
A20	The contractor is responsible for installing the water jets in the basalt slabs.
Q21	Regarding Q&A No. 3, Q7/A7: When will the layout be finalized so that we know if we are going to have the slabs precut before arriving on the site, or if we will have to bring slabs in and cut them to dimension on site.
A21	The size and layout of the basalt slabs will be determined when the final layout of the water jets of the decorative water feature is determined.
Q22	We have been informed by the lighting agent that the type G catenary lighting system cannot be installed as shown. We request a revised drawing showing the revised installation.
A22	Lighting agent has clarified that the electrical contractor was the party questioning the feasibility of type G catenary design. The lighting agent has not indicated that the design is not constructible as shown or provided any feedback prior to this RFI to the electrical consultant on any clarifications needed.
	Lighting agent was informed that the catenary system would be mounted on (2) opposing movable arms on the sky-frame structures. Power via travelling cable (as defined in CEC 2015) to the catenary fixtures + drivers (driver located on movable mounting arm) will be provided integral to skyframe by sky-frame manufacturer.
	Lighting agent confirmed feasibility and will allow for vibrations experienced when both attachment arms are moved down in unison for servicing by means of special mounting components &/or accessories as required to reduce vibration transfer to susceptible components.
Q23	WSP Notes & STM. & SAN. CONNECTION PROFILE Sheet 2 of 3 - Roadworks Notes:
	<i>"12. THE CONTRACTOR IS TO PREDUCT FOR ALL B.C. HYDRO, TELUS AND FORTIS B.C. CROSSINGS. THE CONTRACTOR SHALL COORDINATE WITH THE INDIVIDUAL</i>

<b></b>	UTILITIES TO ENSURE PREDUCTING IS IN PLACE PRIOR TO ROAD PAVING."
	Can the engineer advise the locations of any preduct required for this project under the roadway on the plan for the following: BC hydro, telus, and Fortis services their note#12 calls for?
A23	To clarify, for the utility service connections to the proposed site:
	<ul> <li>The offsite BC Hydro &amp; Telus stub connections to the south-eastern property line (Lane) are existing and therefore preduct installation for these utility service connections is not required.</li> </ul>
	$\cdot$ There will be no gas (Fortis BC) connection to the proposed site and therefore preduct installation for this gas service connection is not required.
Q24	Section 6.1 of Geotech Report says "The areas under the building and any auxiliary structure supports will require stripping of the existing silty/clayey sands and/or fill soils. Stripping depths are anticipated to range between 1.2 meters to 2.5 meters below existing grades." Please confirm that the only existing building being referred to is the building shown on the Topographic Survey by WSP.
A24	DGI has not reviewed the above noted Topographic Survey submitted by WSP. However, DGI is aware of the presence of previously demolished existing buildings/structures (referred to in the Geotechnical Report - Section 1.0 Site Description). Based on our site investigation, the presence of these existing silty/clayey sands and/or fill soils is likely not restricted to the previous building area and will be found to variable depths across the entire site.
	The requirement for removal of existing silty/clayey sands and/or fill soils is specified for under all building and auxiliary structure foundations (new construction). It should be noted that for all foundations bearing on structural fill, the removal of these soils should extend beyond any new foundations by a minimum horizontal distance of 1H:1V from the foundation elevation (i.e. if the stripping depth to reach acceptable bearing soil is 1.5 meters below the footing elevation in one area, the excavation will be required to be 1.5 meters greater than the footing size in all directions).
Q25	The water feature has been left as design build in the tender documents. For bidding general contractors to have common basis, we would propose that the water feature scope of work be tendered as a cash allowance. Please advise.
A25	No, there will not be a cash allowance for the water feature.