ADDENDUM

date: September 30th, 2019
to: Jason Brolund, Fire Chief, West Kelowna Fire Rescue,
cc: Steven Gubbels, Design and Inspection Technologist
from: Michael Currie
file #: 5901111
subject: **Consultant Service to Review Proposed Temporary Fire Protection Response Re-alignment during Bridge replacement**

Dear Chief Brolund,

After the initial technical memo was reviewed by the City of West Kelowna, a review of the load bearing capacity and suitability of the bridge along the private road referenced in Option 3 was undertaken through the City by Stantec.

The findings of this report were forwarded by the City and have been reviewed. The findings indicate that the bridge along the private road is not suitable for the size and weight of vehicles that would be used by the fire department in responding to the affected area.

Further review has been completed of the options listed and the following commentary is provided as an addendum to the Technical Memo and considers that Option 3 will not be viable.

Remaining options

Option 1) Replace bridge with temporary bridge. Fully mitigate the risk.

Option 2) Do not replace the bridge or make other alternative arrangements. Accept the increased risk

Option 3) Use alternate private road access.

Option 4) Store a fire engine/pumper at the Yacht Club parking lot and have fire fighters drop their primary apparatus at bridge, walk across and pick up temporary apparatus, then continue responding.

Option 5) New option. Use Light Attack on private road and bridge as initial response. This option came out of a discussion following the results of the Stantec assessment of the Private Road and bridge suitability. This option would involve developing an alternative response protocol to emergencies (such as structure fire incidents in the affected area). The alternative response protocol would involve responding

a. initially with a Light Attack Vehicle with 2 or 3 fire fighters, from fire hall 31, using the private road and bridge,
b. responding with an engine company (or ladder as appropriate) and mobile water supply using the detour route
c. Note that the Light Attack vehicle does not carry much water and its effectiveness will be limited, however this two stage initial response may be more effective than responding with the primary apparatus along detour as initial response would be slightly faster

To determine if this option would be viable, the municipality would need to verify that the road and bridge would be adequate for the light attack vehicle which is expected to be significantly smaller and lighter than an engine.

Options 1 and 4 were discussed but neither was considered to be preferable by the municipality for various reasons. Option 2 may be the most preferable to the community and is reasonable as response times are not severely affected using the detour route.

If Option 2 is selected, consideration should be given to:

a) Providing a letter of notification to all affected property owners and residents of the affected area, to advise them that the service level in the area for emergency response will be slightly delayed during the project. Property owners and residents should take due care and attention to mitigate their risk of fire and accidents during this time. In particular, steps should be taken to ensure all occupied building have working smoke detectors and batteries have been replaced recently.
b) Developing an emergency evacuation plan for the area and discussing the implications of having a single route out of the area. If there is a significant event (ex. wildfire, flood, ice storm, etc.) that poses a risk to the community and may require evacuation of the affected area, then the evacuation order should be given with adequate advance notice to take into account the increased time to get all residents out along a single route, and with adequate time to evacuate the area should the single egress route be compromised.

Please let us know if there are any questions or comments relating to the findings described in this letter. Thank you for your proactive interest in public fire protection and risk management.

Michael Currie, P.L. (Eng), PMSFPE
Fire Underwriters Survey