



Stantec Consulting Ltd.
905 Waverley Street
Winnipeg MB R3T 5P4
Tel: (204) 489-5900
Fax: (204) 453-9012

Stantec

August 17, 2007
File: 113731410

Department of Fisheries and Oceans
501 University Crescent
Winnipeg MB R3T 2N6

Attention: Todd Schwartz

Dear Mr. Schwartz:

Reference: Proposed Replacement of City of Winnipeg's Access Bridge over Bunn's Creek to 330/334 Bonner Ave

The City of Winnipeg proposes to replace the existing bridge over Bunn's Creek that serve's as the access driveway to 330 and 334 Bonner Ave. The bridge also provides public access to a pathway along Bunn's Creek. The existing bridge is a two span timber stringer bridge founded on timber piles and is in poor condition. Photographs taken April 19, 2007 showing existing site conditions are attached. The City of Winnipeg would like to replace the deteriorated structure with a new cast-in-place concrete structure.

The replacement bridge is proposed to be a single span, approximately 10 m long, integral abutment cast-in-place concrete slab with concrete abutments founded on steel driven piles. A drawing showing a general arrangement of the proposed replacement bridge is attached.

The construction of the proposed bridge should not disturb the Bunn's Creek and aquatic life within. The proposed construction schedule is tentatively set for winter of 2007/2008. Construction access to the bridge during construction will be via Bonner Ave at the north and via the gravel pathway off of Delbrook Crescent from the south. The pathway will provide temporary access for the local residents and emergency services. Removal of the existing abutments and pier may cause some minimal disturbance to Bunn's Creek but this disturbance is extremely temporary and short term.

The installation of the proposed steel H-piles should not affect the fish habitat or aquatic environment provided care is taken during installation. The installation of the piles requires use of a pile driving crane, either diesel or gravity drop hammer. The piles are placed into their surveyed location and pounded into the ground until they refuse, as determined by the criteria developed during the geotechnical investigation.

Once the piles have been installed the abutments can be constructed. Construction of the abutments will comprise of standard concrete construction practice. Untreated wood forms will be used to support the wet concrete until it hardens. The proposed abutments are located outside of the existing waterway and therefore construction of the abutments will not adversely affect the environment.

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Shored, untreated forms are envisioned to construct the cast-in-place slab superstructure. The contractor will be required to develop and submit for review a proposed shoring installation procedure after project has been awarded.

As part of the bridge replacement, the east and west abutment embankments will be reshaped to suit site conditions. The embankments will be shaped locally around the abutments to provide a stable slope and to suit riprap placement and better match the natural slopes of the creek upstream and down. The embankments will be protected by 350 - mm nominal field stone riprap. The riprap will be clean and free of fines prior to placing. The embankments are not to be reshaped below the water level.

Stantec is very familiar with current environmental regulations and have completed numerous bridge replacement projects involving environmental approvals. A hard copy of Stantec's letter requesting approval and the Letters of Advice, or approval letters, received will be attached to the tender documents forming part of the legal contract.

As part of our sediment and erosion control mitigation measures, Stantec will request the following task be implemented throughout the course of construction:

- Removing the debris from the ice.
- Installation of silt fences isolating our abutment construction areas if the creek thaws (this is not anticipated to be an issue as construction should be completed during the winter months).
- No in-water construction to be undertaken between April 1 through June 30.
- Non-reusable demolition or construction materials will be disposed of in an authorized waste disposal facility.
- Demolition materials will not be allowed to enter Bunn's Creek.
- Construction will be halted during periods of heavy rainfall (this is not anticipated to be an issue as construction should be completed during the winter months).
- Stock piled backfill material will be covered with poly during heavy rainfall events and if to remain on site for an extended period of time (this is not anticipated to be an issue as construction should be completed during the winter months).
- Riprap to be placed to the waters edge and not within the river.
- The riprap will be clean fieldstone or quarried rock free of fines.
- Construction machinery may not be refueled or serviced within 100m adjacent to Bunn's Creek or any body of water.
- All construction work shall be performed in a workmanship like manner and shall be in accordance with "Manitoba Stream Crossing Guidelines for the Protection of Fish and Fish Habitat".

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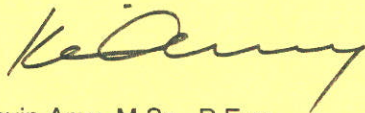
Reference: Proposed Replacement of City of Winnipeg's Access Bridge over Bunn's Creek to 330/334 Bonner Ave

- At no time shall the arm of a back-ho or any other machinery extensions enter the waterway where exposed hydraulic cylinders, engines or other devices containing grease, oil, gas and other toxins could enter and contaminate the waterway and environment.
- The contractor shall have on site at all times, oil absorbent pads in the event of an oil spill or accidental submergence of toxin covered machinery occurs.
- The excavated material for abutment construction shall be placed where it is not likely to erode or be washed into the waterway.

Please review the proposed work and attached Navigable Waters Protection Application form, photos and the General Arrangement drawing. Please advise as soon as possible if advertisement of this project in two local news papers and the Canada Gazette is required. Please contact the undersigned if you require further information or clarification.

Sincerely,

STANTEC CONSULTING LTD.



Kevin Amy, M.Sc., P.Eng.

Structural Engineer

Tel: (204) 489-5900

Direct: (204) 488-5743

Fax: (204) 453-9012

kevin.amy@stantec.com

Attachment: Photographs
 General Arrangement Drawing

c. Bill Ebenspanger, P.Eng., City of Winnipeg



















Stantec

Stantec Consulting Ltd.
905 Waverley Street
Winnipeg MB R3T 5P4
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Fax: (204) 453-9012

October 29, 2007
File: 113731410

Department of Fisheries and Oceans
501 University Crescent
Winnipeg MB R3T 2N6

Attention: Todd Schwartz

Dear Mr. Schwartz:

Reference: Proposed Replacement of City of Winnipeg's Access Bridge over Bunn's Creek to 330/334 Bonner Ave – Additional Information

Reference is made to the letter sent by Stantec, to your department on August 17, 2007, on behalf of the City of Winnipeg. The contact at the City of Winnipeg is Bill Ebenspanger, P.Eng. 106-1155 Pacific Avenue, R3E 3P1. Our approval request letter stated the City of Winnipeg wishes to replace a timber bridge due to the structural inadequacy of the bridge. The letter outlined, in detail, the mitigation measures to be completed to ensure the environment and fish habitat is not disturbed or harmed during the construction of the replacement bridge. However the letter did not outline the mitigation measures to be taken during removal of the existing timber bridge. The following addresses the removal of the existing bridge.

For the removal of the wearing surface and timber plank decking a tarp or poly barrier will be positioned under the bridge and will span between the outermost stringers to trap any debris before it fall on the frozen river. The next step is to remove the stringers. The stringers are to be lifted off the substructure and away from the waterway without any detrimental effects to Bunn's Creek. To further limit the possibility of the foreign materials entering the waterway the tarp or poly barrier will be left in place while removing all the stringers except for the outermost stringers. The railing attached to the outermost stringers will be left in place during the removal of the stringers, thus any possibility of contamination through the removal of the bolts, posts, or guardrail beam will be eliminated.

The removal of the majority of the existing bridge and construction of the proposed bridge will occur during the winter months, as such the creek is expected to be frozen. As the ground and creek are expected to be frozen the Contractor will be required to clean ground and ice of any foreign matter, to the best of their capabilities. If for the Creek is not frozen when the pier or abutments are removed care will be taken to limit the debris that enters the waterway and silt fences and/or silt curtains will be installed as required to collect the debris. Any materials gathered by the silt fence and/or silt curtain will be collected and disposed of in an appropriate manner. Please see the attached sketch depicting the placement of the silt fences during removal of the bridge, actual placement of the silt fence or silt curtains will be adjusted for the conditions on site at the time of construction.

The removal of the piles is anticipated to occur during the winter and the spring. During the winter the abutment piles will be removed or broken to final elevation and the pier piles will be removed in a similar fashion as the abutment but may only be able to remove the pier piles to the ice level. If the pier piles can only be removed to the ice level during the winter, then during the spring the pier piles will be removed completely or broken to final elevation. The spring work will be completed prior to April 1, 2008. The

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Reference: Proposed Replacement of City of Winnipeg's Access Bridge over Bunn's Creek to 330/334 Bonner Ave – Additional Information

following provides further information on the intended pile removal scheme and mitigation measures to be implemented.

The piles can be removed through the use of a High-Ho. Removal of the piles will be attempted but it is possible the piles may break at or just below the ground elevation. The contractor shall place oil absorbent pads as required to remove any surface oil released from the piles. Crushed limestone will be placed around the piles prior to removal. If the piles are fully removed, limestone will be used to completely fill the hole and absorb any oils left within the hole. Should the pile break the limestone will be placed over the stub of the pile and smoothed out, again helping to absorb any oils present in the remains of the pile. Please see the attached sketches depicting the use of the crushed limestone during pile removal.

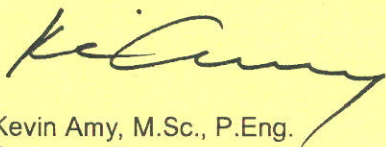
The backwalls and wingwalls may be removed before or after the piles. As the walls are removed the retained materials will move towards the waterway but will be able to be cleaned up and removed as the ground and waterway are expected to be frozen. Should open water or runoff occur the materials will be restrained by the silt fence and will not be allowed to enter the waterway. If too much movement is anticipated the restrained materials will be regarded to an acceptable slope as the wall planks are removed to avoid overwhelming the silt fence, if in place.

This letter and the attached sketches are in addition to the information provided in the August 17, 2007 letter and drawings.

Please review the sketches provided and the previous package and return comments. The City of Winnipeg would like to close tenders in December 2007 and begin construction during the first half of January 2008 and thus any in stream construction activities will be completed prior the spring restrictions.

Sincerely,

STANTEC CONSULTING LTD.



Kevin Amy, M.Sc., P.Eng.

Structural Engineer

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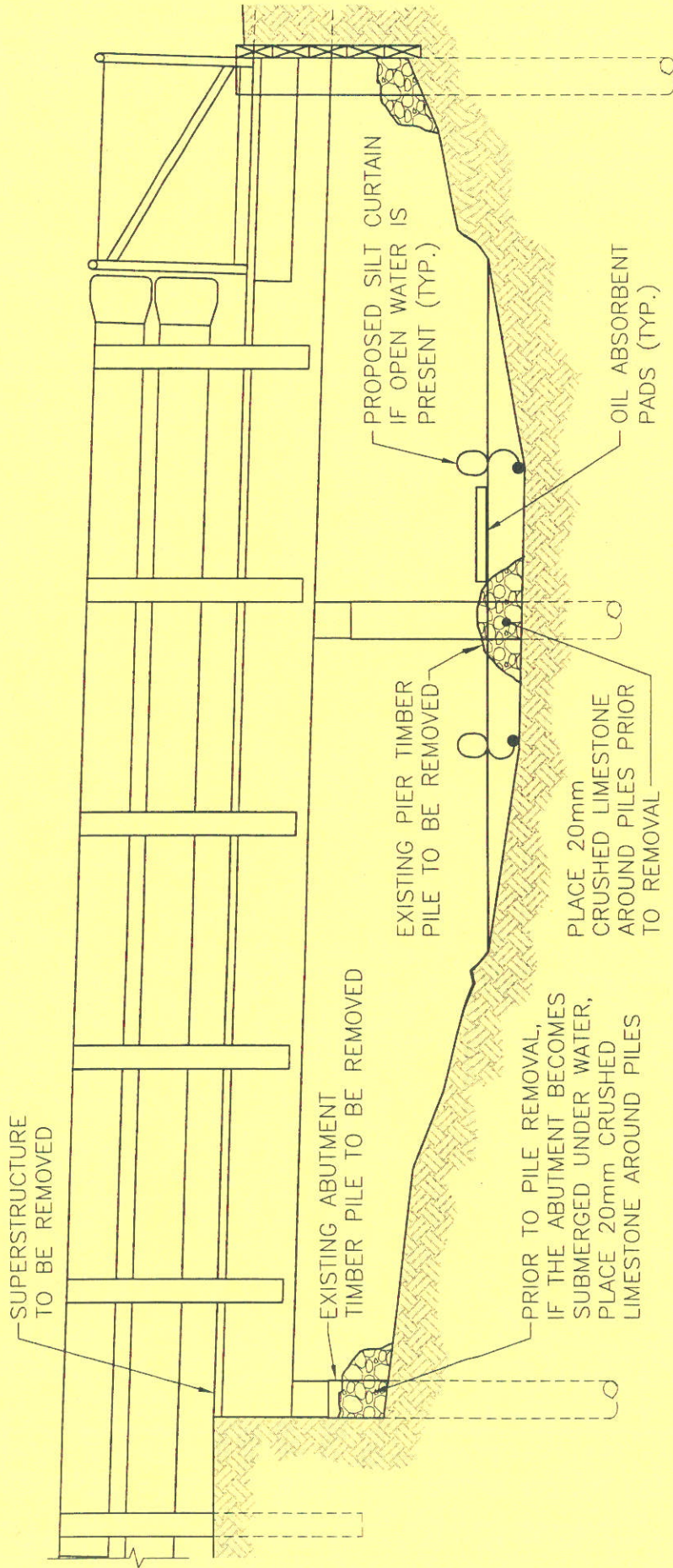
Direct: (204) 488-5743

Fax: (204) 453-9012

kevin.amy@stantec.com

Attachment: Sketch

c. Bill Ebenspanger, P.Eng., City of Winnipeg



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 2007-10-25 03:27PM By: jbeernaerts

OCT. 25, 2007
 113731410

Client/Project

CITY OF WINNIPEG
 BUNN'S CREEK
 REPLACEMENT ACCESS DRIVEWAY

Figure No.

SK-1.0

Title

ABUTMENT & PIER SECTIONS
 PRIOR TO REMOVAL

Legend

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 R3T 5P4
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 www.stantec.com



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