



August 28, 2015

Mr. Chad M. Weyenberg, P.E.
City of Appleton Department of Public Works
100 North Appleton Street
Appleton, WI 54911

Bridge Dive Inspections in the City of Appleton (Unit Y-15)
Amendment #1- Bridge B44-0886, Olde Oneida Street over Fox River Pier Repairs

Dear Mr. Weyenberg:

As you are aware Collins recently completed and submitted the underwater inspection and reports for eleven bridges owned by the City of Appleton. During the inspection of Bridge B44-0886, the inspection team leader noted that the upstream column of Pier 1 exhibited deterioration at its intersection with the stream bedrock. The City of Appleton has therefore requested Collins prepare an amendment / proposal to provide for repair of the piers. A copy of our proposal is attached for your consideration.

If there are any questions regarding this submittal, please do not hesitate to contact me at (920) 252-2418/smiller@collinsengr.com or Roy Forsyth at (414) 282-6905/rforsyth@collinsengr.com. If you are in agreement with our amendment please sign in the allotted space below. Our team looks forward to working with the City of Appleton on this project.

Very truly yours,

COLLINS ENGINEERS, INC.


Steven J. Miller, P.E.

Regional Manager

Amendment #1 Approved for the City of Appleton

Date: _____, 2015

Signature / Title _____

CC: File

Attachments:

PROJECT UNDERSTANDING

During July 2015, Collins Engineers performed an underwater diving inspection on Bridge B44-0886, Olde Oneida Street over the Fox River. During that inspection the inspection team leader noted that the upstream column of Pier 1 exhibited deterioration at its intersection with the stream bedrock. This proposal to provide for repair of the pier has been prepared at the request of the City of Appleton. A general description of the pier arrangement, the inspection notes and inspector recommendations is provided below.

Pier Descriptions

Each of the bridges' piers consist of a concrete cap beam supported by two each concrete columns founded on bedrock / piles. The original 1945 structure plans for the piers indicate the 8'-6" x 4'-6" elliptically shaped columns were to be embedded up to 4 feet into the bedrock stream bed and also keyed to the bedrock with four each 8 foot long piles (see attached drawing). Additionally, each of the columns was to be cast into 5/16" thick steel casing form work to be left in place.

Inspection Notes & Recommendations (See Attached Inspection Report)

Pier 1- is located immediately downstream of a dam on the Fox River. The inspection team leader's inspection notes indicate that the casing on the upstream column at the pier stops 8" above bedrock (see attached sketch). The as-built conditions at this location appear to be different than the original design plans. Additionally, the column concrete below the casing has eroded around its full perimeter with up to 1 ft. to 1.5 ft. of penetration. The piles at this column were not visible during the inspection. It is anticipated that the proximity of the pier to the upstream dam may be a factor in the concrete deterioration / erosion.

Pier 2- The team leader's inspection notes indicate that the upstream column is located within a 3 foot deep excavated hole in the bedrock. The bottom of the columns steel casing was found to be approximately at bedrock level, however no significant undermining or deterioration of the concrete was found.

Piers 3 to 9- the steel casings of all pier columns exhibited surface corrosion with a maximum 1/8" deep pitting. No scour or undermining was detected or noted.

Recommendations- Based on the inspection and further discussions with the City of Appleton it has been recommended that Pier 1 be repaired.

PROJECT APPROACH

Upon notice to proceed from the City of Appleton, Collins Engineers, Inc. will prepare the plans, specifications and an estimate to provide for repair of the pier column. It is anticipated that two repair alternatives will be studied and that those alternatives might include 1) Construction of repairs in the dry with a cofferdam 2) Construction of repairs underwater. The final recommended alternative will depend on various factors including, but not limited to cost, environmental considerations, constructability and other factors.

Scope of Work- It is estimated that the following work will be required to design repairs for the pier:

Task Description
• Existing Plans & Design Document Review
• Development of Alternatives (2 each)
• Repair Design
• Plans, Specifications & Estimate
• Project Coordination & Administration

Fee Estimate- Collins proposes to accomplish the above noted work for a Lump Sum Price of \$4,213.88. This amount includes all labor, materials and expenses necessary to accomplish the work as noted.

Fee Assumptions

1. Two alternatives for pier repair will be analyzed and developed based on costs, constructability and other factors. The alternatives will be verbally discussed with the City and a recommended alternative will be progressed based on those discussions. A formal written design report will not be developed or submitted to the City.
2. Collins will utilize WisDOT or City of Appleton specific specifications for non-special materials and workmanship; however Collins will prepare any special specifications required for the project. Boilerplate (front-end) specifications will be provided by the City of Appleton.
3. Geotechnical Investigation- A geotechnical investigation if required will be completed by others. The cost of geotechnical investigation is not included in this proposal.
4. Field Survey- Topographic elevations of pier elements, stream beds etc. will be assumed elevations. The costs for survey work (neither field nor hydrographic) are not included in this proposal. *
5. Construction Phase Services*- For the purposes of this proposal, we are defining construction phase services to include: attendance at preconstruction meetings, answering of contractor questions, construction inspection, shop drawing reviews, contractor payment approvals, post construction inspection and other construction related activities.

6. Preparation and the securing of any permits required for the project are not included in this estimate.*

*These services can be completed by Collins; however, are not included in this estimate.

Consultant Contract Total Fee Computation

Bridge Dive Inspections-Amendment 1
City of Appleton, WI

Project ID	N/A	Total for Contract
Number of Staff Hours	39	39
Total Labor	\$4,213.88	\$4,213.88
Direct Expenses	\$0.00	\$0.00
Total	\$4,213.88	\$4,213.88