



230 W. Monroe Street
Suite 630
Chicago, IL 60606

312.800.5912 PHONE
312.578.0877 FAX

March 6, 2020

Mr. Mike LeBeau

Construction and Energy Project Supervisor
City of Duluth
1532 West Michigan Street
Duluth, MN 55806

**Subject: Shoreline Restoration Design, Canal Park, City of Duluth L30022, TRC Proposal
343356.9990.0000_Revised**

Dear Mr. LeBeau:

At your request, we have prepared and submitted a proposal (dated March 6, 2010) for two additional Canal Park tasks:

- Site Preparation and Support for Large Stone Delivery Small Contract;
- Stone Materials Management.

You have accepted our proposal on March 5, 2020 and provided us with a signed copy. In addition, we understand that the Western Waterfront Trail (WWT) work will be deleted from our approved contract. The following is a summary of the Canal Park contract amounts:

- Site Preparation and Support for Large Stone Delivery Small Contract: ADD +\$26,748.00
- Stone Materials Management: ADD +41,985.00
- Wester Waterfront Trail: **DEDUCT -\$79,130.00.**
- **NET DEDUCT -\$10,397.00.**

The existing approved contract L30210 is \$575,571.00. With an applied net deduct of \$10,397, the new contract total is **\$565,174.00.** Please let me know if you have any questions.

Sincerely,

TRC

Dan Veriotti, PE

A handwritten signature in blue ink, appearing to read 'D. Veriotti'.

Chicago Office Principal Engineer



230 W. Monroe Street
Suite 630
Chicago, IL 60606

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November 4, 2020

Mr. Mike LeBeau
Construction and Energy Project Supervisor
City of Duluth
1532 West Michigan Street
Duluth, MN 55806

**Subject: Shoreline Restoration Design, Canal Park Construction Observations
City of Duluth L30022, TRC Project Number 347747.0000.00000**

Dear Mr. LeBeau:

Due to unexpected circumstances (as discussed during our progress meetings between October 5 and November 2, 2020) the Canal Park construction is being delayed. The main reasons are listed below:

- Boardwalk materials shipping from Brazil was impacted by Covid-19; in a good case scenario, the materials will be received at the end of December. It is very likely that the start construction for the boardwalk will only be possible in the Spring 2021, as soon as the ice and snow melt. It is estimated the boardwalk construction will last approximately 1.5 months;
- The site restoration will be scheduled in Spring 2021, as the proposed plant plugs are not available until that time;
- The proposed concrete wall repairs prevent any other site items from being completed, including paving of the Lakewalk and pouring the concrete beams for the boardwalk; the concrete beams are estimated to need at least a month for completion.

In addition, the selected contractor (Veit) provided only land-based construction. For this specialized significant shoreline protection system, it was our expectation that work from a marine barge would be employed to set the toe stone and place the armor stone below the water level. Please note that this is the typical Great Lakes construction for similar projects, but it is not mandatory to require water-based construction, in order to secure competitive bid prices. Veit's selected land-based construction resulted in numerous work stops, as the revetment was found deficient and it had to be re-built several times.

The following contract items are scheduled to be completed in 2021:

- Boardwalk including the concrete support beams;
- Site restoration including parking lot, swales final grading and plantings;
- Lakewalk paving;

- Plaza decking and handrailing.

We expect all the new concrete cap work be completed in November 2020. Potentially, a portion of the boardwalk concrete beams (at the project south and north ends) might be provided after the concrete cap, which is weather-dependent. As a result of all the above, the Contractor submitted a Contract Extension request until June 19, 2021 (which coincides with Grandma's Marathon). The Contractor proposed that date to be the new project completion.

Our approved contract assumed a 6-month project construction (up to October 2020) and our Canal Park project budget is almost depleted. The new project construction schedule adds approximately 7.5 months, with a good number of items remaining to be completed in 2021.

In order to provide continuous project coverage to the project completion, our team has estimated a schedule for both field (inspections until the end of 2020 and during spring 2021) combined with office time as shown in the attached spreadsheet. Our proposed schedule assumes that the following remaining project items will be completed as follows:

- November 2020: new concrete wall cap;
- December 2020: minimal site work;
- January and February 2021: no field work;
- March and April 2021: concrete beams and boardwalk construction (weather-dependent);
- May 2021: final site restoration;
- June 2021: Lakewalk paving, punch list and project closeout (June 19, 2021).

Our project team will provide the following coverage in the field and office, identifying the proposed personnel:

Personnel	2020	2020	2021	2021	2021	2021	2021
TRC	November	December	January	February	March	April	19-Jun-21
Lisa McManus	27hrs/wk	-	-	-	8hrs/wk	30hrs/wk	30hrs/wk
Scott Weyandt	5hrs/wk	-	-	-	5hrs/wk	5hrs/wk	5hrs/wk
Dan Veriotti	2hrs/wk	2hrs/wk	2hrs/wk	2hrs/wk	2 hrs/wk	2 hrs/wk	2 hrs/wk
AMI							
Zac Morris	4hrs/wk	2 hrs/wk	-	-	5hrs/wk	5hrs/wk	4hrs/wk
Kristi Mehrman	2hr/wk	2hr/wk	-	-	4hrs/wk	4hrs/wk	4hrs/wk
Noah Tapper	-	-	-	-	4hrs/wk	4hrs/wk	4hrs/wk

In the table above, we are presenting the man-hours needed to the completion of the project in 2021. They will be supplemented with some man-hours part of all the remaining available budget in 2020.

Per your direction, we are tracking the additional expenses related to the concrete wall damages (inspection, documentation, structural analysis, product evaluation and approvals, along with field inspections during construction). This effort is not included in the proposal and we will prepare the effort total estimate after the cap is constructed (with an estimated completion at the end of November).

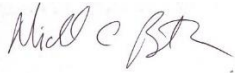
The field personnel will be supervised by Scott Weyandt and Zac Morris. Dan Veriotti will continue to have daily correspondence with the field personnel, conduct the weekly progress meetings, and be in charge with the office work.

We propose to complete our listed services for a LSUM of \$58,585.00, including all expenses. This includes all the efforts needed to complete the project in 2021, while some of the 2020 man-hours needed will be covered under the existing contract, as stated. A copy of the project loading spreadsheet is attached (including the approved contract, and the new proposed hours for all the personnel involved with this project).

Please let us know if you have any questions.

Sincerely,

Mike Butler, PE



Unit Leader
312.578.0870

mbutler@trccompanies.com

Dan Veriotti, PE



Office Principal Engineer
312.800.5916

dveriotti@trccompanies.com

11/4/2020



230 W. Monroe Street
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Chicago, IL 60606

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November 18, 2020

Mr. Mike LeBeau
Construction and Energy Project Supervisor
City of Duluth
1532 West Michigan Street
Duluth, MN 55806

**Subject: Concrete Wall Cap Repairs, Canal Park
City of Duluth L30022, TRC Proposal 420435.0000.0000**

Dear Mr. LeBeau:

We are pleased to submit this proposal for Professional Services for the City of Duluth Shoreline Restoration-Canal Park project, in support of the new concrete wall cap.

This proposal was prepared in response to the City of Duluth decision to proceed with a new concrete cap for the wall, initially damaged by the contractor's operation. The proposed fees are in accordance with the tracked time already spent on the project and forecasted amounts to complete the project.

We appreciate the opportunity to submit this proposal. Please let us know if you have any questions.

Sincerely,

TRC

A handwritten signature in blue ink, appearing to read "D. Veriotti".

Dan Veriotti, PE
Chicago Office Principal Engineer
312.800.5916

1.0 Project Understanding

During the project construction for the shoreline protection system, the vertical concrete wall was constructed first, followed by Veit's operations on the east side of the wall to construct the armor stone revetment. Per the Engineer Notice on July 29, 2020, the stone revetment work was stopped, as damages to the concrete wall started to be documented. The damage was caused by the heavy equipment lifting stone over the concrete wall and pushing the stone forcefully into the wall.

The damages to the concrete wall were documented on the cap area: horizontal cap spalling (missing concrete, generally up to 3 inches deep) and cracks, along with vertical surface dents and cracks.

The City of Duluth issued an official letter on September 28, 2020 asking the contractor for a new cap be provided.

2.0 Project Scope

2.1 Repairs Evaluation

This task includes the following:

- Site meetings on September 15 and 16, 2020 to discuss various repair alternatives;
- Inspections of five areas with different products applied;
- Assessment of product data sheets, design life, construction costs and contractor's warranties;
- Aesthetics and tentative project schedule.

2.2 Engineering Design and Construction Observations

Based on task 2.1 above, the Engineering team concluded that the only possible way to address the extensive concrete damage is to cut the upper (8 to 12) inches of the entire wall and a new cap be re-poured. We have found this to be the best alternative, from both aesthetics and structural functionality standpoint. This task includes the following:

- Evaluate alternatives, and selection of the Final Preferred for implementation;
- Engineer of Record Opinion/letter for the contractor's insurance company;
- Structural Design analysis;
- Design of the new cap, including 9 inches of cut, epoxied steel dowels, new concrete cap;
- Provide plan to the contractor and respond to questions;
- Work closely with the contractor for the site preparation (temporary removal of armor and filter stone) and the installation of forms;

- Minimum 6 special inspections during the existing wall cutting, drilling, providing reinforcing, forming and concrete pouring;
- Part-time observations and reporting. The new cap is expected to be complete sometimes in December 2020.

3.0 Proposed Fees and Schedule

3.1 Fees

Our project team will complete all services described in this proposal for a lump sum (LSUM) cost of **\$16,326.00**, including all direct work and associated expenses. The TRC team will complete the work on a Lump Sum basis, in accordance with our approved Standard Terms and Conditions Agreement (L30210 dated June 12, 2019). The budgets identified in the table above will not be exceeded without CLIENT approval.

The following table summarizes the cost breakdown by task:

Item	Fee
2.1 Repairs Evaluation	\$3,819.0
2.2 Engineering Design and Construction Observations	\$12,507.0
Total	\$16,326.0

Attachment 2 Work Authorization



Acceptance of TRC Proposal No. 420435.9990.0000

The signature below, by a duly authorized representative of the City of Duluth, indicates acceptance of the above-referenced proposal without exception. Acceptance is limited to the terms stated in this Agreement, and any additional or different terms are rejected unless expressly agreed to in writing by TRC.

Approved and accepted as of the date shown below:

TRC

City of Duluth

By:



Signature

Dan Veriotti, PE

Printed Name

Chicago Office Principal Engineer

Title

11/18/2020

Date

By:



Signature

Michael LeBeau




Printed Name

Construction Project Supervisor, City of Duluth

Title

11/18/2020

Date

				Dan Veriotti PM, Principal		Scott Weyandt Senior Civil Eng.		Brian Iwaniuk Civil Eng.		CA/ Lisa M.		 Zac Morris Chase Dewhirst		Kristi Mehrman		Brady Korwin Surveyor		Chad Scott Principal		Seth Johnson/ Permit Specialist		 Ben Yahr Land Arch.						
Line		TRC Team																				Direct Costs	Travel Direct Costs	Eq. Rental, Misc.	Total Labor Hours	Expenses	Total Labor Cost Plus Expenses	
		Labor Hours	Labor Rate \$	Labor Hours	Labor Rate \$	Labor Hours	Labor Rate \$	Labor Hours	Labor Rate \$	Labor Hours	Labor Rate \$	Labor Hours	Labor Rate \$	Labor Hours	Labor Rate \$	Labor Hours	Labor Rate \$	Labor Hours	Labor Rate \$	Labor Hours	Labor Rate \$							
		188.00		137.50		121.00		65.00		137.50		115.50		165.00		231.00		126.50		115.50								
CANAL PARK 2020	I. CONCRETE WALL REPAIRS																											
	Site Visits	12	\$ 2,256.00	4	\$ 550.00		\$ -		\$ -	2	\$ 275.00		\$ -		\$ -		\$ -		\$ -		\$ -					18	\$ -	\$ 3,081.00
	Alternative Evaluation	1	\$ 188.00		\$ -		\$ -		\$ -	4	\$ 550.00		\$ -		\$ -		\$ -		\$ -		\$ -					5	\$ -	\$ 738.00
	Structural Analysis		\$ -		\$ -		\$ -		\$ -	8	\$ 1,100.00		\$ -		\$ -		\$ -		\$ -		\$ -					8	\$ -	\$ 1,100.00
	Design Plan	1	\$ 188.00		\$ -		\$ -		\$ -	6	\$ 825.00		\$ -		\$ -		\$ -		\$ -		\$ -					7	\$ -	\$ 1,013.00
	Engineer of Record Letter	2	\$ 376.00		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -					2	\$ -	\$ 376.00
	Construction Administration	12	\$ 2,256.00	6	\$ 825.00		\$ -	32	\$ 2,080.00	16	\$ 2,200.00	23	\$ 2,656.50		\$ -		\$ -		\$ -		\$ -					89	\$ -	\$ 10,017.50
2		28	\$5,264	10	\$1,375	0	\$0	32	\$2,080	36	\$4,950	23	\$2,657	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0	129	\$ -	\$ 16,325.5
	NET	28	\$5,264.0	10	\$1,375.0	0	\$0	32	\$2,080.0	36	\$4,950.0	23	\$2,656.5	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0	129	\$ -	\$ 16,326
																						TOTAL MAN-HOURS		129				
																						Project Total		\$16,326				