

PUBLIC WORKS & UTILITIES COMMITTEE

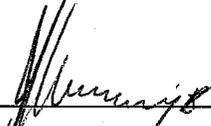
13-0555R

RESOLUTION AUTHORIZING A CONTRACT WITH LHB, INC. FOR PROFESSIONAL ENGINEERING SERVICES FOR THE DESIGN AND CONSTRUCTION FOR FLOOD REPAIR OF BRIDGE NO. L8496, TOLEDO STREET AT CHESTER CREEK, IN THE AMOUNT OF \$37,274.

CITY PROPOSAL:

RESOLVED, that the proper city officials are hereby authorized to enter into an agreement with LHB, Inc. for professional engineering services related to the design and construction of flood repair of Bridge No. L8496, Toledo Street at Chester Creek, in an amount not to exceed \$37,274, payable from Disaster Recovery Fund 225, Department/Agency 125 (Finance), Organization 1803 (Roads and Bridges), Object 5303 (Engineering Services), city project no. 1233, S.A.P. 118-080-046, requisition no. 13-0621.

Approved:

  
\_\_\_\_\_  
Department Director

Approved for presentation to council:

  
\_\_\_\_\_  
Chief Administrative Officer

Purchasing Agent 

Approved as to form:

  
\_\_\_\_\_  
Attorney

Approved:

  
\_\_\_\_\_  
Auditor

ENG PTM:jh 10/31/2013

STATEMENT OF PURPOSE: This resolution will authorize a contract for professional

engineering services for the design and construction of flood repair of Bridge No. L8496, Toledo Street at Chester Creek. Costs to be reimbursed by state of Minnesota local road and bridge disaster relief. Disaster Recovery Fund 225, Department/Agency 125 (Finance), Organization 1803 (Roads and Bridges), Object 5303 (Engineering Services), city project no. 1233, S.A.P. 118-080-046, FEMA flood site no. 20, requisition no. 13-0621.



**PERFORMANCE  
DRIVEN DESIGN.**

LHBcorp.com

Mr. Patrick Mlakar  
Project Engineer  
City Engineering  
211 City Hall  
Duluth, MN 55802

**Proposal for Engineering Services  
Replacement of Bridge No. L8496  
Toledo Street over Chester Creek**

We appreciate the opportunity to assist the City with engineering services for the replacement of Bridge No. L8496, carrying Toledo Street over Chester Creek. We have attached a work plan task sheet and fee estimate worksheet detailing our anticipated scope and estimated fee for the preliminary design, final design, bidding and construction administration phases of the project. Specific work tasks are as itemized on the work plan task sheet. A general discussion of our work plan and project approach follows:

**Project Approach:**

Our proposed scope of services can be generally defined as follows:

- Initial phase work will consist of gaining a complete understanding of the site. This work will entail further field reconnaissance, review of existing roadway and utility plans/ records, site meetings with City representatives and completion of field topographic survey.
- With field reconnaissance and survey work completed the preliminary design phase will begin. With rehabilitation of the in place structure not an option due its condition this phase will begin with the waterway hydraulic study. This study will focus not only on determining a required replacement structure opening/ flow capacity but also on ways to improve the localized hydraulics and inlet/ outlet conditions so measures (aprons, headwalls, contouring, size and extent of riprapping etc.) can be assessed which will minimize the potential for the level of washout which has occurred. To assure their concurrence and avoid permitting delays the MnDNR will also be actively consulted with during the performance of this phase of the work.
- As the hydraulic design phase proceeds it will be integrated with the replacement structure study and shared with City team representatives so that conclusions on structure type and associated hydraulic improvements can be reached. At this time and assuming MnDNR acceptance a replacement depressed precast concrete box culvert structure is assumed.
- As hydraulics work and the bridge study wraps up a preliminary restoration plan for the overall site will be developed. This plan will identify the required underground/ utility improvements as well as investigating surface improvements. Initial surface improvements to investigate include roadway surface, railing/ fencing features and other pedestrian safety and aesthetic features to ensure the reconstruction properly integrates with the neighborhood.
- Working with the City team during the performance of these preliminary phase assessments the resulting product will be the efficient development of the site restoration plan.

- As the site restoration plan is nearing its completion a level of involvement with the immediate residences may be warranted. Should the City team be in agreement we would initiate this effort.
- The project will utilize Flood Bond funding. Our project team has completed numerous projects under this funding scenario assuring an efficient well-coordinated effort.
- With consensus and public and agency approvals in hand, final design, detailed construction plans and specifications will be completed. Plans will be prepared in accordance with City, MnDOT and State Aid requirements as may be required due to flood bond funding.
- In addition to specification development our proposal includes assisting the City with preparation of the complete bidding and advertising package along with responding to bidder questions and preparation of any addenda.
- Construction administration services include on-site inspection during all critical phases of the work to ensure conformance with plans and specifications, communication, documentation, payment processing and materials testing.
- A more detailed listing of anticipated services along with tasks by anticipated project team members and associated costs can be found in our enclosed scope of services proposal.

We look forward to the opportunity to assist the City with the successful reconstruction and restoration of this site. Please contact the undersigned with any questions.

Proposal Prepared By:



Joseph D. Litman PE  
Vice President

Encl.

LHB File # 130164



# COST PROPOSAL

Project Name **Toledo St Br L8496 Repl.**  
 Client **City of Duluth**  
 Preparer **JDL**

Project Number **120320**  
 Date **October 16, 2013**

Work Plan Task	Description	Project Principal	Project Manager	Hydraulics Engineer	Lead Technician	Asst. Technician	Landscape Architect	Land Surveyor	Surv/ Const Tech	Admin Asst.	Total Labor Costs (\$)
		Joe Litman	Jon Siiter	Nathan Bruno	Gary Vonasek	Steve Hohenstein	Mark Anderson	Paul Vogel	Aaron Albertson	Tony Derrick	
		\$ 145	\$ 135	\$ 79	\$ 78	\$ 52	\$ 100	\$ 122	\$ 76	\$ 50	
1	Initial Site Visits and Consultation	0	3	0	2	0	0	0	0	0	\$ 561
2	Preliminary Site Investigations and Stream and Topographic Survey	0	0	0	8	12	0	2	12	1	\$ 2,454
3	Preliminary Engineering Design and Public Information Meetings	3	6	16	4	0	0	0	0	2	\$ 2,921
4	Construction Plans, Special Provisions and Cost Estimating	4	24	0	62	0	0	0	0	10	\$ 9,156
5	Permitting	1	2	0	2	0	0	0	0	1	\$ 621
6	Bidding Assistance	1	3	0	0	0	0	0	0	0	\$ 550
7	Construction Administration	3	36	0	0	0	0	0	166	0	\$ 17,911
<b>TOTALS</b>		<b>12</b>	<b>74</b>	<b>16</b>	<b>78</b>	<b>12</b>	<b>0</b>	<b>2</b>	<b>178</b>	<b>14</b>	<b>\$ 34,174</b>
<b>OTHER DIRECT COSTS (ODC)</b>										<b>SUMMARY</b>	
Description	Cost									LHB Labor Cost	\$ 34,174
Travel/ Insp vehicle	\$ 800									Other Direct Costs	\$ 1,100
Mail / Delivery	\$ -									Total LHB Est Cost	\$ 35,274
Printing	\$ -									Subconsultant Costs	
Supplies	\$ -									Materials Testing Est.	\$ 2,000
Survey Equipmeent	\$ 300									Total Est Costs	
Total ODC	\$ 1,100										\$ 37,274



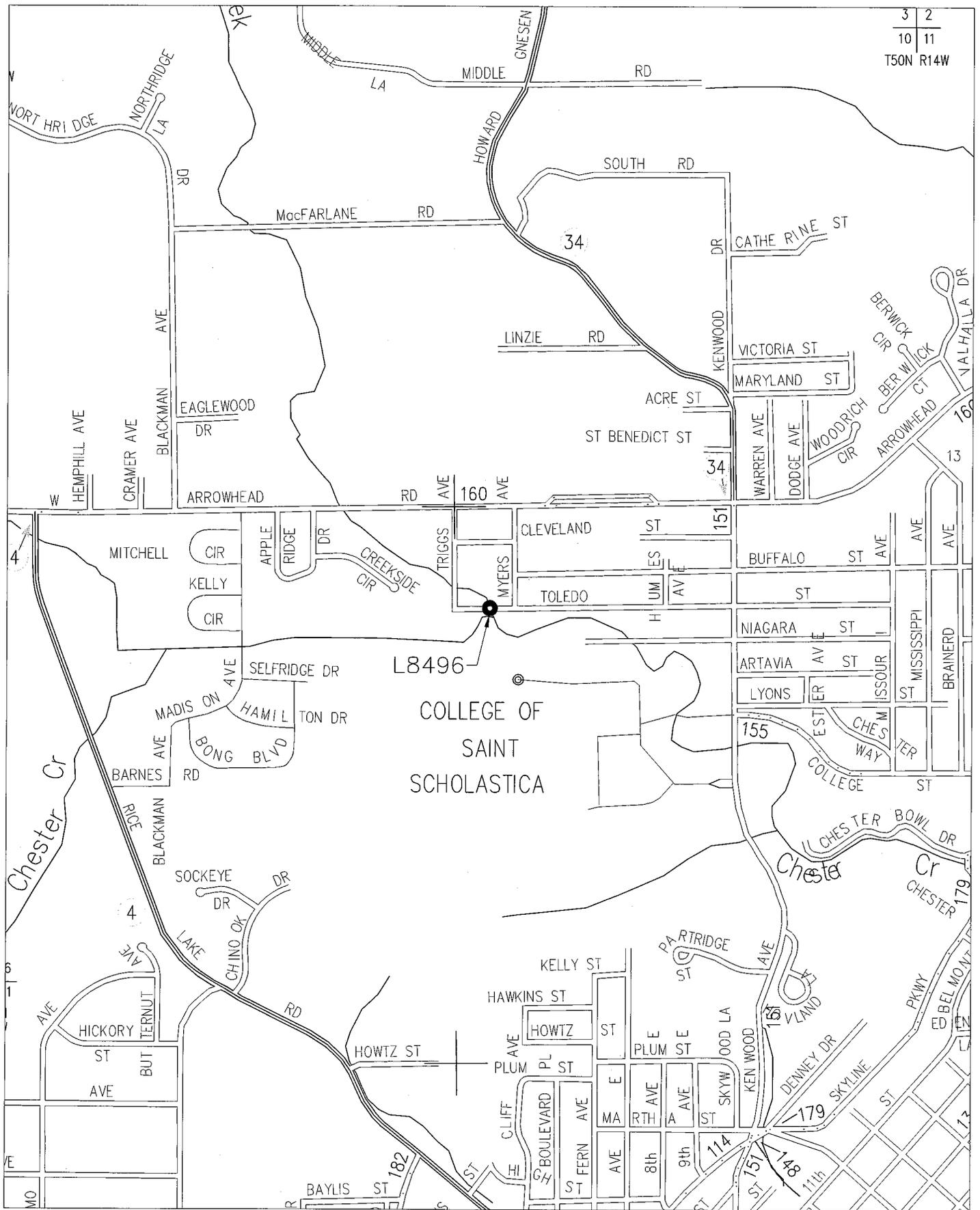
**WORK PLAN &  
SUMMARY OF HOURS BY TASK**

Project Name Toledo St/ Chester Crk-Br L8496 Repl.  
Client City of Duluth  
Preparer JDL

Project Number 130164  
Date October 16, 2013

Work Task	Description	Project Principal	Project Manager	Hydraulics Engineer	Lead Technician	Asst. Technician	Landscape Architect	Land Surveyor	Surv/ Const Tech	Admin Asst.
		Joe Litman	Jon Silter	Nathan Bruno	Gary Vonasek	Steve Hohenstein	Mark Anderson	Paul Vogel	Aaron Albertson	Tony Derrick
1.00	Kickoff Meeting/ Walk Through with City		2		2					
1.01	Design Criteria Summary and Meeting Minutes		1							
2.01	Gather Property and Control Information									
2.02	Gopher One Call for Survey							2		
2.03	Topography Survey									1
2.04	Mapping				8		12		12	
3.01	Bridge Replacement Type Review									
3.02	Preliminary Alignment/ Cross Sections	1	2		2					
3.03	Waterway Hydrology/ Hydraulics		1		2					
3.04	Bond Fund/ or FEMA Coordination			16						
3.05	Consult with Citizens Along Route	2	2							
3.06	Prepare Presentation Materials for Public Information Meeting									
3.07	Public Information Meetings (One Meetings Assumed)									1
3.08	Public Information Meeting Minutes									1
4.01	Title Sheet (1 sheet)		1		2					
4.02	Statement of Estimated Quantities and Notes	1	2		8					
4.03	Typical Sections (1 sheets)		2		4					
4.04	Precast Box Culvert Details (3 Sheets)		2		6					
4.05	Traffic Control		1		2					
4.06	Erosion Control Details (1 sheets)		1		2					
4.07	Erosion Control Plan (2 sheets)		1		6					
4.08	Construction Plan and Profile (1 sheet) @ 1" = 40' scale	1	2		16					
4.09	Earthwork Summary (1 sheet)		1		4					
4.10	Cross Sections (3 Sheets)		2		12					
4.11	Utility Relocation Letters / Coordination		1							4
4.12	Engineers Estimate, Final Design (90% Complete)	1	2							
4.13	Special Provisions	1	6							6
5.01	MnDNR/Joint Notification	1	2		2					1
6.01	Respond to Bidder Questions		2							
6.02	Prepare Clarifications and Addenda (Assume 1)	1	1							
7.01	Correspondence	1	4							4
7.02	On Site Observation (est 3 wks @ 40hr/ wk)	2	20							120
7.03	Daily/ Weekly Documentation		6							24
7.04	Progress Meetings		2							4
7.04	Payment Applications/ IRA's		2							6
7.05	Record Documents		2							8
<b>Grand Total All Tasks</b>		<b>12</b>	<b>74</b>	<b>16</b>	<b>78</b>	<b>12</b>	<b>0</b>	<b>2</b>	<b>178</b>	<b>14</b>

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T50N R14W



JUNE 2012 FLOOD DAMAGE ASSESSMENT  
BR. L8496