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August 4, 2015

RE: Cross City Trail – Phase 3
Duluth, Minn.
SEH No. DULUT 109680

Mr. Patrick Loomis, PE
City of Duluth Engineering
411 West 1st Street
Duluth, MN 55802

Dear Mr. Loomis:

We are pleased to present this proposal to continue working with City of Duluth staff on the Cross City Trail. We understand you are looking for assistance with the preliminary and final design, environmental documentation, permitting, and bidding assistance for Phase 3 Upper Route (Zoo to Spirit Mountain) of the Cross City Trail project. If requested, a separate proposal can be prepared for the construction administration, inspection, and staking for Phase 3.

I have outlined below the remaining major work categories that need to be completed for the Cross City Trail Upper Route Phase 3 as shown in the attached map. A detailed work plan is attached showing the planned level of effort for each task.

Phase 3 Tasks

1. Project Management and Meetings \$21,500

This task includes overall project management and client updates along with City staff meetings, coordination meetings with the DNR and Spirit Mountain to discuss route options through Spirit Mountain and other DWP and Knowlton Creek improvements planned. We've also included attendance at one Duluth Parks Board meeting, one City Council meeting, and one assumed public meeting for Phase 3.

2. Structural and Geotechnical Final Design \$65,700

This task includes reviewing bridge rehab options and cost estimates for the two existing stone arch bridges behind the zoo and developing final design plans for the selected rehab method. This also includes the final design of one new pedestrian bridge (assumed 200' in length) over Knowlton Creek in the area of the washout along with the geotechnical exploration and recommendations for each structure.

3. Right-of-Way / Easement \$12,200

The proposed Phase 3 route would utilize the DWP right-of-way. In this phase, the majority of the land lies within the old DWP right-of-way which is now owned by the City of Duluth. In this task we will create a description and exhibit for a 100' wide trail easement through this property suitable for recording. This will include field time to research and locate 4 plat corners in order to describe the easement in a consistent manner with the underlying plat and to ensure there are no encroachments onto private property. We will also verify Duluth's ownership of the DWP right-of-way near 85th Avenue West where it is believed to be privately held land. We will also work with the City Real Estate group to provide a description and exhibit for the easement on the south side of Grand Avenue to ultimately connect to the Munger Trail.

4. Topographic Survey, Final Plan and Specification Preparation, Drainage Design, and Utility Coordination \$89,100

This task includes finalizing the construction plans, specifications, and construction cost estimates and drainage design. The plans will be prepared to a State Aid standard and specifications will follow the City of Duluth and MnDOT standards.

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 418 West Superior Street, Suite 200, Duluth, MN 55802-1512

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Although a full drainage report is not anticipated, we will prepare a drainage memorandum discussing the stormwater impacts to this project. After walking the project site with City staff, we've assumed several 36-inch culvert replacements or extensions. There are no large culvert replacements or permitting included in this task. We've included time for two DNR waters permits, one for the Bridge over Stewart Creek and one for the new bridge over Knowlton Creek along with the hydraulic assessment report for each location.

This task also includes execution of the MnDOT utility notification process. Topographic survey will be completed for the trail corridor needed for the final bridge and trail design. This task assumes no geometric route or alignment changes will occur from the current proposed route.

5. Environmental Documentation

\$25,000

We will prepare the final Project Memorandum for Phase 3 of this project. The Section 4(f) documentation for Phase 3 has already been approved by the Duluth Park Board.

A wetland delineation of the project corridor and preparation of a wetland report will be completed along with completion and submittal of the appropriate wetland permits for the proposed wetland impacts.

It is anticipated that both the stone arch bridges behind the zoo will be listed as eligible for the national historic database. We've included time in this task to coordinate with the City to secure SHPO clearance to rehab these bridges.

6. Construction Administration Assistance (Phases 3 & 4)

\$19,500

Phase 4 is scheduled to begin construction in August of 2015. The City is completing the daily construction inspection and administration with support from SEH to complete shop drawing reviews and approvals, site meetings, and addressing design change requests throughout construction. This task continues SEH support of City staff during the construction of Phase 4. We have included 40 hours for a project manager to be used as directed by City staff.

It is anticipated that the City will provide the daily construction inspection and administration for Phase 3 construction in 2016. We have included time in this task to support the City in completing shop drawing reviews and approvals, site meetings for Phase 3 as well along with 40 hours for a project manager to be used as directed by City staff.

The total proposed fee to complete all work listed above is \$233,000. I've included a detailed work plan attached to this letter showing the anticipated level of effort for each specific task listed above. Please review this proposal and contact me with any questions.

We look forward to continuing our work on the Cross City Trail.

Sincerely,

SHORT ELLIOTT HENDRICKSON INC.



Matt Bolf, PE
Project Manager
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Billing Title	Employee Name	Project Manager	Professional Engineer	Technician	Professional Engineer	Planner	Professional Engineer	Scientist	Registered Land Surveyor	Survey Crew Chief	Admin Tech	Accounting Rep	Graduate Engineer	Total
Task #1 - Project Management														
1.0 Contract and General	Bolf		Krysiak/Allyz	Orleskie	Huermann	Turrentine	J. Johnson	White	Larsen	K. Anderson	Hayes	Austin	Yngstad	
Create project in accounting system	40											2		2
Kickoff Meetings/Update Meetings	1													40
Develop Quality Control Plan	5											1		1
Coordinate subconsultant services/invoices	8											8		6
Project schedule / fee review & Client Updates	2											8		10
Invoice management														
Funding agency coordination														
Subtotal Hours	56											11		67
Subtotal Labor Fees	\$8,792.00											\$1,045.00		\$9,837.00
1.1 Meetings (Notice, Agenda, Materials, Minutes)														
Kickoff meeting with City Staff	2		2											
Kickoff meeting with SEH Staff	8		2	2	2	1	1	1	1	1				
Predesign neighborhood meeting	8		1	4							4			
DNR/MnDOT Meeting	8													
Design team meetings	8		8	8									8	
Park Board meetings	4		2	2							0.5			
Prepare preliminary quantity estimate	1		2	4										
Prepare preliminary cost estimate	1		1	1										
Subtotal Hours	30		171	118	116	60	109	140			2		124	
Subtotal Labor Fees	\$4,710.00		\$24,795.00	\$8,850.00	\$13,920.00	\$6,600.00	\$21,800.00	\$13,300.00	\$5,200.00	\$14,720.00	\$450.00		\$11,160.00	\$84,385.00
2.5 Right of Way/Easements														
Create 100' Easement - Description and Exhibit	2			16					32	36				
Spirit Valley Easement	4			4					4	8				
85th Easement														
Subtotal Hours	6			20					36	44				
Subtotal Labor Fees	\$942.00			\$1,500.00					\$4,680.00	\$5,060.00				\$12,182.00
Task Hours Summary	55		198	193	116	60	109	140	40	128	6		124	
Task Labor Fee Summary	\$8,635.00		\$28,710.00	\$14,437.50	\$13,920.00	\$6,600.00	\$21,800.00	\$13,300.00	\$5,200.00	\$14,720.00	\$450.00		\$11,160.00	\$138,932.50
Task #3 - Bid Documents														
3.0 Develop Construction Plans														
Title Sheet			0.5	2										
Legend				2										
General Layout				2										
Orientation/Survey Control				2										
Estimated Quantities	1		1	20										
Tabulations	1		1	10										
Earthwork Tabulation			1	10										
Typical Sections			1	2										
General Notes			1	2										