EXHIBIT A

PERFORMANCE
DRIVEN DESIGN.
LHBcorp.com

April 12, 2022

Duncan C. Schwensohn, PE
Senior Engineer
City of Duluth
411 West First Street, Room 211

21ST AVENUE EAST (CITY PROJECT PI2021-1993)
CONSTRUCTION SUPPORT & DESIGN SCOPE REVISIONS | SUPPLEMENT #1

As requested, please find the enclosed fee estimate for additional services related to the contract.

A summary description of additional project services incorporated by this supplement follows:

Revised Project Scope

1. Construction Support: LHB will provide engineering services for construction engineering and oversight of the project as follows:
    a. Task 1 – Construction Project Management:
        i. Prepare and distribute project correspondence during construction.
        ii. Monitor project budget.
        iii. Provide communication with City staff and the public.
    b. Task 2 – On Site Observation:
        i. Monitor the Contractor's performance and quality/conformance of materials utilized.
        ii. Lead construction meetings including preconstruction and weekly construction meetings between the Contractor, Owner(s), Engineer, and other interested parties such as utility owners, permitting agencies and area residents.
        iii. Observe all aspects of the construction.
        iv. Provide experienced personnel on-site with required Mn/DOT training and certification to assure the work is monitored properly and that funding requirements are met.
    c. Task 3: Construction Staking:
        i. Establish project benchmarks and working points.
        ii. Detailed field survey staking of necessary control and grades to facilitate construction of the project.
        iii. Creation of staking data files.
        iv. Staking of roadway subcuts, roadway alignment, roadway surface blue tops and curb stakes, and utility locations.
    d. Task 4: Construction Documentation:
        i. Prepare and distribute project correspondence.

ii. Documentation and record keeping of construction conformance, construction progress and payment processing.
iii. Daily and Weekly Diaries.
iv. Quantity Measurements and Computations.
v. Preparation and updating of Quantity Item Record Accounts.
vi. Review and processing of Materials Testing Reports.
vii. Preparation of Work Orders, Change Orders, Supplemental Agreements and Pay Estimates.
viii. Final Record Drawings and completion of the One-Year Warranty Inspection.

e. Subconsultant Tasks
   i. Materials Testing (Braun): Braun Intertec will provide construction materials testing services. Braun's detailed materials testing scope is enclosed.
   ii. Signals & Fiber (SRF):
      1. Construction Inspection: Includes four (4) site visits for signal inspection by a signal inspector with additional coordination. Includes development of the signal punchlist.
      2. Shop Drawing Reviews: Includes two (2) iterations of signal shop drawing reviews – one for the preordered signal mast arm poles and one for the standard equipment shop drawing submittals by the Contractor.

2. Design Scope Revisions: At certain points during the final design, additional design tasks were required due to work activities for which scope could not be known at the time of initial pricing (vault work), expanded project scope, or as new information became available that required a revised design approach or additional effort to address. These items include the tasks outlined below.
   a. Signals & Fiber:
      i. Interconnect design for impacts north of 4th Street due to new sidewalk.
      ii. Pre-ordering of mast arm signal poles, fiber optic cable, and signal cabinets.
      iii. Fiber Optic Design and Option Revisions.
      iv. Scope Revisions required plan modifications, coordination with City and vendors, and special provisions changes.
   b. Woodland Avenue Walk Extension: The City revised the project to include extension of sidewalk to Woodland Avenue based on feedback and input from the public. Currently no walk exists along the west side of 21st Avenue East between Woodland and 5th Street. As such, pedestrians headed up to Woodland Avenue on the west side of 21st Avenue East or approaching 21st Avenue East on 5th Street from the west are obliged to cross 21st Avenue East to access the walk on the east side of 21st Avenue. The space available to construct a walk in this area is limited and required additional driveway and ADA sidewalk design, a short retaining wall, some utility relocation, and additional site survey.
   c. Drainage Design Scope: subsequent to the execution of the Contract, the City provided detailed drainage recommendations that included removal and replacement of portions of the storm sewer system, rehabilitation of the storm sewer system, and repair details. The scope modifications required revisions to project tabulations and quantities, special project construction details, additional storm sewer modeling and layout. Quantity changes were required pending final Agreement between MnDOT and City to address participating and non-participating costs. The changes required modifications to charts and SEQ.

d. Temporary Easement Identification and Preparation: a key goal and requirement of the project is to improve ADA compliance of the pedestrian facilities within City right-of-way including pedestrian curb ramps and walkways. In order to provide ADA compliant walks at certain locations but especially at intersections and driveways, it was determined during the design that temporary easements would be required to allow for the construction of modified grades of City right-of-way. Work include identification and coordination of easement impacts and preparation of easement exhibits for right-of-way acquisition by the City.
e. Oregon Creek Tunnel Add'l Scope: the project was scoped for repairs to the tunnel associated with a single manhole riser at the intersection. After field review and consultation with the City, it was determined that both manhole risers above the tunnel required repairs. The revised scope required separate repair and reconstruction details and coordination with drainage and grading designs.

The fee estimates for the work described are summarized as follows:

Scope Item	Fee
Construction Support	$223,619
Design Revisions	$54,202
Total	$277,821

We appreciate the opportunity to continue providing services for this project. Upon review if you have any questions concerning our proposal or would like to meet to review, please do not hesitate to call.

LHB

c: LHB Project No. 210433

Attachments: Braun Intertec Materials Testing Proposal
Design Scope Revisions Cost Summary
Construction Support Proposal & Summary of Hours by Task

Braun Intertec Corporation
3404 15th Avenue East, Suite 9
Hibbing, MN 55746

Phone: 218.263.8869
Fax: 218.263.6700
Web: braunintertec.com

March 30, 2022 Proposal QTB156045

Brad Scott, PE
LHB, Inc.
21 West Superior Street, Suite 500
Duluth, MN 55802

Re: Proposal for Construction Materials Testing Services
21st Avenue East Reconditioning -SAP 118-152-016
21st Avenue East, between London Road and Woodland Avenue
Duluth, Minnesota

Dear Mr. Scott:

Braun Intertec Corporation is pleased to submit this proposal to provide construction materials testing services for the 21st Avenue East Reconditioning project in Duluth, Minnesota.

Since our inception in 1957, we have grown into one of the largest employee-owned engineering firms in the nation. With around 1,000 employee owners, retaining our firm gives you access to a diverse range of services and professionals you can consult with if the unforeseen occurs. The size of our company also allows us to respond quickly when schedule constraints occur.

Our Understanding of Project

We understand this project will include the construction of pavement subgrade preparation, aggregate base placement, new concrete curb and gutter, sidewalk, and driveways along with concrete pavement rehabilitation and bituminous pavement mill and overlay. Improvements to the storm utilities will also be part of this project.

This project is a City of Duluth project with state-aid funding. Projects that are constructed with state-aid, funding are required to perform Quality Control and Quality Assurance (QC/QA) testing in accordance with the Minnesota Department of Transportation's (MnDOT's) 2020 Standard Specifications for construction. This project is using MnDOT's 2020 State Aid for Local Transportation (SALT) Schedule of Materials Control. Personnel with MnDOT certifications must complete the monitoring and testing. Braun Intertec will perform the QA field testing and plant monitoring on the project as listed in our scope of services and as shown on our attached cost estimate table. The contractor will be responsible for

performing all of the required QC testing and submitting all the documentation upon completion of the project. An audit of the project could be conducted upon completion. The audit may include reviewing tests and paperwork provided by your QC/QA representative.

Available Project Information

This proposal was prepared using the following documents and information.

- Project plans prepared by LHB, Inc., dated March 21, 2022.

To our knowledge, no geotechnical report was prepared for this project.

Braun Intertec Project Personnel

For this project, we will provide technicians that are MnDOT certified in each specialized field. We have many MnDOT certified employees. For the proposed scope of services, our staff will have the following certifications:

- Aggregate Production
- Grading & Base I
- Concrete Field I
- Concrete Plant I
- Bituminous Street
- Bituminous Plant I
- MnDOT or ACI Strength Testing

Accredited Laboratory

In the 2020 Schedule of Material Control, which is part of this project's testing requirements, MnDOT requires laboratories performing acceptance tests for payment to be accredited by the AASHTO Resource (formerly AASHTO Materials Reference Laboratory [AMRL]) for all test procedures performed.

Braun Intertec is one of the few independent testing companies that is accredited in the state. With Braun Intertec's Metro Material Laboratory typically operating 24 hours a day, laboratory test results are delivered in a timely manner.

Scope of Services

Testing services will be performed on an on-call, as-needed basis as requested and scheduled by you or your on-site project personnel. Based on our understanding of the project, we propose the following services.

Soil Related Services

- Perform nuclear gauge density tests on utility backfill, select granular borrow, and aggregate base materials.
- Perform companion moisture content tests at time of compaction on backfill materials.
- Perform gradation tests on select granular borrow and aggregate base materials.
- Perform laboratory standard Proctor tests on backfill and fill materials.
- Prepare the preliminary and final grading and base report along with assembling the random sampling locations report for the aggregate base according to MnDOT Specifications.

Concrete Field Testing Related Services

- Sample and test the plastic concrete for slump, air content, temperature prior to placement.
- Prepare 4-inch by 8-inch cylinders for compressive strength testing.
- Laboratory compressive strength testing of cylinders.
- Perform concrete ready-mix batch plant inspections which include periodic observations of plant operations, collecting and submitting aggregate samples, cement samples and admixture samples for testing.
- Perform coarse and fine aggregate gradation tests.

Concrete Paving QA Plant Testing

- Submit samples for coarse and fine aggregate gradation testing to Braun Intertec Materials Lab.

- Perform the agency concrete pavement plant quality assurance testing requirements, as shown in MnDOT's 2020 Schedule of Materials Control.

Concrete Paving QA Field Testing

- Perform correlation air content before consolidation.
- Perform concrete temperature.
- Supply beam molds or cylinder molds, curing and testing of flexural strength beams or compressive strength cylinders.
- Perform the agency concrete pavement field quality assurance testing requirements, as shown in MnDOT's 2020 Schedule of Materials Control.

Bituminous Related Services

- Perform bituminous plant inspections which includes periodically observing the contractor's quality control testing, observing one set of contractor tests per day and collecting companion samples for quality assurance tests.
- Collect one verification sample per mix per day of production. Perform quality assurance tests on these samples which include Rice specific gravity, asphalt content, extracted aggregate gradation, gyratory density, coarse aggregate angularity, and fine aggregate angularity.
- Randomly determine and mark pavement core locations.
- Observe the contractor coring and core testing in accordance with MnDOT's specifications, which include watching quality control personnel weigh the cores at their laboratory.
- Collect companion cores and test for thickness and density of pavement cores.

Reporting and Project Management

Test results will be issued weekly for the project as the various tasks are performed. If, at any time, there are failing tests which do not appear to be in accordance with the plans and specifications or MnDOT's

Schedule of Materials Control, we will notify the engineer's representative and any others that we are directed to notify.

Before the final project closeout, we will issue a final report. The report will include the following:

- Braun Intertec technician roster for technicians that conducted testing on the project.
- Completed MnDOT Materials Certification Exceptions Summary for items tested by Braun Intertec.
- Completed Preliminary and Final Grading and Base Report.
- Moisture, Density Proctor and Gradation tests.
- Concrete mix designs.
- Concrete compressive strength results.
- Concrete paving flexural strength test results.
- Concrete batch plant inspection field forms.
- Concrete pavement field testing reports for slump, air content and temperature.
- Completed test reports for samples sent to the MnDOT Materials Lab.
- Bituminous mix designs.
- Bituminous verification test results.
- Bituminous contractor's summary sheets.
- Random core log location worksheets.
- Completed density incentive/disincentive worksheets.

- Copies of concrete and bituminous plant certifications.

Basis of Scope of Work

The costs associated with the proposed scope of services were estimated using the following assumptions. If the construction schedule is modified or the contractor completes the various phases of the project at different frequencies or durations than shown in this proposal, we may need to adjust the overall cost accordingly. The scope of work and number of trips required to perform these services are as shown in the attached table. Notable assumptions in developing our estimate include:

- Compaction testing will be performed using the nuclear density method on utility backfill and fill material; a minimum of three tests will be conducted each trip with four trips assumed.

- We assume compaction testing on granular materials will be performed using the nuclear density method; a minimum of four tests will be conducted each trip with two trips assumed.

- We assume compaction testing on aggregate base will be performed using the nuclear density method; a minimum of two tests will be conducted each trip with two trips assumed.

- We assume 18 sets of concrete tests will be required to complete the project.

- We assume the rebar observations before concrete placements will be completed by the project representative's construction oversight manager.

- We assume one coarse aggregate and one fine aggregate in the ready mix concrete.

- We assume bituminous paving will be completed in two days for this project.

- We assume the project engineer of record will review and approve the contractor's quality control submittals and test results.

- You, or others you may designate, will provide us with current and approved plans and specifications for the project. Modification to these plans must also be sent to us so we can review their incorporation into the work.

- We will require a minimum of 24 hours' notice for scheduling inspections for a specific time. Shorter than 24 hours' notice may impact our ability to perform the requested services, and the associated impacts will be the responsibility of others.

If the work is completed at different rates than described above, this proposal should be revised.

Cost and Invoicing

We will furnish the services described herein for an estimated fee of $17,935. **Our estimated costs are based on industry averages for construction production. Depending on the contractor's performance, our costs may be significantly reduced or slightly higher than estimated.** A tabulation showing our estimated hourly and/or unit rates associated with our proposed scope of services is also attached.

Additional Services and Overtime

It is difficult to estimate all of the services, and the quantity of each service, that will be required for any project. Our services are also directly controlled by the schedule and performance of others. For these reasons, our actual hourly or unit quantities and associated fees may vary from those reported herein.

If the number of hours or units ultimately required exceed those assumed for purposes of this proposal, they will be invoiced at the hourly or unit rates shown in the attached tabulation. If services are ultimately required that have not been identified or described herein, they will be invoiced in accordance with our current Schedule of Charges. Prior to exceeding our estimated fees, we will update you regarding the progress of our work.

This cost estimate was developed with the understanding that the scope of services defined herein will be required and requested during our normal work hours of 7:00 a.m. to 4:00 p.m., Monday through Friday. Services that we are asked to provide to meet the project requirements or the contractor's construction schedule **outside** our normal work hours will be invoiced using an overtime rate factor. The factor for services provided outside our normal work hours or on Saturday will be 1.25 times the normal hourly rate for the service provided. The factor for services provided on Sunday or legal holidays will be 1.5 times the normal hourly rate for the service provided. You will be billed only for services provided on a time and material basis.

General Remarks

We will be happy to meet with you to discuss our proposed scope of services further and clarify the various scope components.

We appreciate the opportunity to present this proposal to you. After reviewing this proposal, **please sign and return one copy to our office as notification of acceptance and authorization to proceed**. If anything in this proposal is not consistent with your requirements, please let us know immediately. Braun Intertec will not release any written reports until we have received a signed agreement. Also, ordering services from Braun Intertec constitutes acceptance of the terms of this proposal.

The proposed fee is based on the scope of services described and the assumption that our services will be authorized within 30 days and that others will not delay us beyond our proposed schedule.

Our services will be provided under the terms of the Master Service Agreement between LHB, Inc. and Braun Intertec Corporation.

To have questions answered or schedule a time to meet and discuss our approach to this project further, please contact Molly Johnson at 218.263.8869 (mjohnson@braunintertec.com).

Sincerely,

BRAUN INTERTEC CORPORATION

Molly A. Johnson, PE
Project Engineer

Joseph C. Butler, PE
Business Unit Manager, Senior Engineer

Attachments:
Cost Estimate Table

The proposal is accepted. We will reimburse you in accordance with this agreement, and you are authorized to proceed:

Authorizer's Firm

Authorizer's Signature

Authorizer's Name (please print or type)

Authorizer's Title

Date

BRAUN INTERTEC
The Science You Build On.

Project Proposal

QTB156045

21st Avenue East Reconditioning

Client:	Work Site Address:	Service Description:
LHB, Inc. Brad Scott 21 West Superior St., Suite 500 Duluth, MN 55802 (218) 727-8446	21st Avenue East Duluth, MN 55812	MNDOT QA Construction Materials Testing

	Description	Quantity	Units	Unit Price	Extension
Phase 1	**MnDOT Testing**				
Activity 1.1	**Soil Testing**				**$3,090.00**
207	**Compaction Testing - Nuclear**	16.00	Hour	75.00	$1,200.00
	Work Activity Detail ***Qty Units*** ***Hrs/Unit*** ***Extension***				
	Utilities *4.00 Trips* *2.00* *8.00*				
	Granular Borrow *2.00 Trips* *2.00* *4.00*				
	Aggregate Base *2.00 Trips* *2.00* *4.00*				
1308	**Nuclear moisture-density meter charge, per hour**	16.00	Each	20.00	$320.00
1861	**CMT Trip Charge**	10.00	Each	15.00	$150.00
217	**Compaction Testing - DCP's**		Hour	75.00	$.00
1530AG	**Asphalt Content of Aggregate Base, per sample**	1.00	Each	175.00	$175.00
209	**Sample pick-up**	2.00	Hour	75.00	$150.00
	Work Activity Detail ***Qty Units*** ***Hrs/Unit*** ***Extension***				
	Gradation/Proctor Pick-up *2.00 Trips* *1.00* *2.00*				
1318	**Moisture Density Relationship (Proctor)**	3.00	Each	175.00	$525.00
1162	**Sieve Analysis with 200 wash, per sample**	3.00	Each	145.00	$435.00
1688AG	**Percent Crushed, Aggregate Base, per sample**	1.00	Each	75.00	$75.00
1152	**Moisture content, per sample**	3.00	Each	20.00	$60.00
Activity 1.2	**Concrete Testing**				**$8,830.00**
261	**Concrete Testing**	40.00	Hour	75.00	$3,000.00
	Work Activity Detail ***Qty Units*** ***Hrs/Unit*** ***Extension***				
	Retaining Wall *1.00 Trips* *2.00* *2.00*				
	Sidewalks *4.00 Trips* *2.00* *8.00*				
	Curb & Gutter *4.00 Trips* *2.00* *8.00*				
	Driveways *4.00 Trips* *2.00* *8.00*				
	Pavement Rehabilitation *5.00 Trips* *2.00* *10.00*				
	Concrete Pavement *2.00 Trips* *2.00* *4.00*				
278	**Concrete Cylinder Pick up**	10.00	Hour	75.00	$750.00
	Work Activity Detail ***Qty Units*** ***Hrs/Unit*** ***Extension***				
	Cylinder Pickup *20.00 Trips* *0.50* *10.00*				
1861	**CMT Trip Charge**	45.00	Each	15.00	$675.00
1364	**Compressive strength of concrete cylinders, per specimen**	56.00	Each	30.00	$1,680.00
	Work Activity Detail ***Qty Units*** ***Hrs/Unit*** ***Extension***				
	Retaining Wall *1.00 Set* *3.00* *3.00*				
	Sidewalks *4.00 Set* *3.00* *12.00*				
	Curb & Gutter *4.00 Set* *3.00* *12.00*				
	Driveways *4.00 Set* *3.00* *12.00*				
	Pavement Rehabilitation *5.00 Set* *3.00* *15.00*				
	Concrete Pavement *2.00 Sets* *1.00* *2.00*				
1162CO	**Sieve Analysis, per sample**	10.00	Each	145.00	$1,450.00

Project Proposal

QTB156045

21st Avenue East Reconditioning

	215	**Concrete Ready Mix Plant Monitoring**			15.00	Hour	85.00	$1,275.00
		Work Activity Detail	***Qty***	***Units***	***Hrs/Unit***		***Extension***	
		Sidewalks	*1.00*	*Trips*	*3.00*		*3.00*	
		Curb & Gutter	*1.00*	*Trips*	*3.00*		*3.00*	
		Driveways	*1.00*	*Trips*	*3.00*		*3.00*	
		Pavement Rehabilitation	*2.00*	*Trips*	*3.00*		*6.00*	
	1367	**Flexural strength of beams (ASTM C 78 and ASTM C 293), per specimen**				Each	140.00	$.00
Activity 1.3		**Pavement Testing**						**$3,530.00**
	2689	**MnDOT Bituminous Verification, per sample**			2.00	Each	775.00	$1,550.00
	221	**Bituminous Coring**			8.00	Hour	85.00	$680.00
		Work Activity Detail	***Qty***	***Units***	***Hrs/Unit***		***Extension***	
		Mark & Observe Contractor Coring & Testing	*2.00*	*Trips*	*4.00*		*8.00*	
	1542	**Thickness and Density of Bituminous Core**			4.00	Each	55.00	$220.00
	222	**Bituminous Verification Testing**			12.00	Hour	85.00	$1,020.00
		Work Activity Detail	***Qty***	***Units***	***Hrs/Unit***		***Extension***	
		Bituminous Plant Monitoring	*2.00*	*Trips*	*6.00*		*12.00*	
	1861	**CMT Trip Charge**			4.00	Each	15.00	$60.00
Activity 1.4		**Project Management**						**$2,485.00**
	226	**Project Manager**			6.00	Hour	145.00	$870.00
	1230	**MnDOT Final Report**			1.00	Each	1,000.00	$1,000.00
	228	**Senior Project Manager**			1.00	Hour	165.00	$165.00
	238	**Project Assistant**			6.00	Hour	75.00	$450.00
							Phase 1 Total:	**$17,935.00**

Proposal Total:	**$17,935.00**

DESIGN SCOPE REVISIONS

PROJECT NAME **21ST AVE EAST** PROJECT NUMBER **210433**
CLIENT **CITY OF DULUTH** DATE **4/12/2021**
PREPARER **LHB/SRF**

COST SUMMARY

Work Task	Description	LHB: Brad Scott, Project Manager	LHB: Megan Goplin, Project Engineer	LHB: Jon Siiter, Structural Lead	LHB: Chris Miller, Structural Engineer	LHB: Nathan Bruno, Drainage Lead	LHB: Steven Hohenstein, Technician	LHB: Paul Vogel, Land Surveyor	LHB: Tony Hanson, Survey Tech	SRF: Luke James, Traffic Designer	SRF: Jake Folkeringa, Fiber and Network Lead	SRF: Tech	TOTAL HOURS	TOTAL EXPENSES	TOTAL LABOR COST PER TASK	TOTAL COST PER DELIVERABLE
1.00	**INITIAL SITE VISITS AND CONSULTATIONS**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$ -**	**$ -**	**$ -**
														$ -	$ -	$ -
															$ -	$ -
2.00	**RECONNAISSANCE, FIELD SURVEYS**	**2**	**4**	**0**	**0**	**0**	**8**	**6**	**6**	**0**	**0**	**0**	**26**	**$150.00**	**$ 3,224.00**	**$ 3,374.00**
2.01	Add'l Field Survey & Mapping (Woodland Connection)	2	4				8	6	6						$ 3,224.00	$ 3,224.00
															$ -	$ -
														$150.00	$ -	$ 150.00
3.00	**PLANS AND SPECIFICATIONS**	**6**	**78**	**6**	**32**	**80**	**148**	**0**	**0**	**16**	**20**	**26**	**412**	**$ -**	**$ 50,828.14**	**$ 50,828.14**
3.01	Interconnect design for impacts north of 4th Street										8	10			$ 2,367.70	$ 2,367.70
3.02	Pre-ordering of mast arm signal poles, fiber optic cable, and cabinets									16		4			$ 2,246.28	$ 2,246.28
3.03	Fiber Optic Design Revsiions										12	12			$ 3,242.16	$ 3,242.16
3.04	Storm Sewer Design & Revisions	4	24			80	40								$ 18,928.00	$ 18,928.00
3.05	Woodland Walk Connection, Driveways, and Wall Layout	2	32				48								$ 9,700.00	$ 9,700.00
3.06	Temporary Easement Identification & Prep		16				20								$ 4,252.00	$ 4,252.00
3.07	Oregon Creek Tunnel Add'l Scope		6	6	32		40								$ 10,092.00	$ 10,092.00
															$ -	$ -
4.00	**COST ESTIMATE**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$ -**	**$ -**	**$ -**
															$ -	$ -
5.00	**PROJECT BIDDING**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$ -**	**$ -**	**$ -**
															$ -	$ -
	TOTAL HOURS	**8**	**82**	**6**	**32**	**80**	**156**	**6**	**6**	**16**	**20**	**26**	**438**			
	COST PER HOUR	$ 170	$ 132	$ 170	$ 125	$ 135	$ 107	$ 170	$ 80	$ 115	$ 167	$ 103				
	TOTAL COST	**$ 1,360**	**$ 10,824**	**$ 1,020**	**$ 4,000**	**$ 10,800**	**$ 16,692**	**$ 1,020**	**$ 480**	**$ 1,834**	**$ 3,341**	**$ 2,681**				

SUMMARY

TOTAL LABOR	$ 54,052.14
TOTAL EXPENSES	$ 150.00
TOTAL FEE	**$ 54,202**

CONSTRUCTION SUPPORT PROPOSAL

Project Name **21ST AVE EAST** | Project Number **210433**
Client **CITY OF DULUTH** | Date **4/12/2022**
Preparer **LHB/SRF**

Work Task	Description	Project Principal $ 175	Project Manager $ 142	Hydraulics Engineer $ 142	Lead Technician $ 107	Asst. Technician $ 63	Licensed Surveyor $ 170	Survey Tech $ 100	Survey Tech $ 94	Admin Asst. $ 89	Total Labor ($)
1	CONSTRUCTION PROJECT MANAGEMENT	8	38		0	0	0			0	$ 6,796
2	CONSTRUCTION OBSERVATION	14	94		677	270	0			16	$ 106,725
3	CONSTRUCTION STAKING		0		0	20	11	245	196		$ 46,058
4	CONSTRUCTION DOCUMENTATION	7	53		142	28					$ 25,715
	TOTALS	29	185	0	819	318	11	245	196	16	$ 185,294

OTHER DIRECT COSTS (ODC)

Description	Cost	
Travel	$	-
Mail / Delivery	$	-
Printing	$	-
Supplies	$	-
Survey Equipment	$	-
Construction (See Task 5)	$	10,390
Total ODC	$	10,390

SUMMARY

LHB Labor Cost	$ 185,294
Other Direct Costs	$ 10,390
Total LHB Est Cost	$ 195,684
Subconsultant Costs	
SRF	$ 10,000
Braun -- Matls. Testing	$ 17,935
Total Est Costs	$ 223,619

WORK PLAN &
SUMMARY OF HOURS BY TASK

Project Name **21ST AVE EAST** Project Number **210433**
Client **CITY OF DULUTH** Date **4/12/2022**
Preparer **LHB/SRF**
Phase **CONSTRUCTION**

Work Task	Description	Project Principal	Project Engineer	Lead Technician	Asst. Technician	Licensed Surveyor	Survey Tech	Survey Tech	Admin Asst.	Direct Costs
TASK 1 - CONSTRUCTION PROJECT MANAGEMENT (17 WEEKS)		**8**	**38**	**0**	**0**	**0**	**0**	**0**	**0**	
1.01	Correspondence	8	34							
1.02	Financial		4							
TASK 2 - CONSTRUCTION OBSERVATION (15 WEEKS)		**14**	**94**	**677**	**270**	**0**	**0**	**0**	**16**	
2.01	Observation Roadway and Utilities (75 Days @ 9 Hrs/day)			675	270					
2.02	Engineering Site Observation (15 weeks)	4	60							
2.03	Weekly Meetings and Minutes (15)	6	30						14	
2.04	Preconstruction Meeting and Minutes	4	4	2					2	
TASK 3 - CONSTRUCTION STAKING		**0**	**0**	**0**	**20**	**11**	**245**	**196**	**0**	
3.01	Verify Existing Control Points						4			
3.02	Create Staking Data Files				20	8	40			
3.03	Set Benchmarks						8	8		
3.04	Set Reference Hubs for Contractor use						24	24		
3.05	Stake Manholes & CB Structures (46)					1	46	46		
3.06	Curb Stakes and ADA staking					1	50	50		
3.07	Blue Tops and Staking for Full Depth Conc. Insxns.					1	42	42		
3.08	Travel Time (30 Trips)						15	10		
3.09	As-Built Survey						16	16		
TASK 4 - CONSTRUCTION DOCUMENTATION		**7**	**53**	**142**	**28**	**0**	**0**	**0**	**0**	
4.01	Quantity Calculations			20	20					
4.02	Review Testing Reports		10	10						
4.03	Work Orders (10)		10	10						
4.04	Change Orders (2)		4	4						
4.05	Pay Requests (7)		7	14						
4.06	IRA's			40						
4.07	Record Drawings		4	32	8					
4.08	Final Walk-Through and Punch List	4	10	4						
4.09	One-Year Warranty Inspection	1	4	4						
4.10	E-mail and Phone Logs	2	4	4						
TASK 5 - OTHER COSTS		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10390**
5.01	Travel cost 40 trips @ 6 miles @ $0.585									140
5.02	On site Construction Vehicle 4 months @ $1500 per month									6000
5.03	GPS equipment @ $150 per day @ 25 day									3750
5.04	Staking and inspection supplies									500