May 15, 2025

Nathan Bruno, P.E.
Senior Engineer, City of Duluth
411 West 1st St, Room 240 City Hall
Duluth, MN 55802
nbruno@duluthmn.gov

PROPOSAL FOR PROFESSIONAL SERVICES-AMENDMENT 01
PALM STREET SMART POND FINAL DESIGN

In accordance with our ongoing discussions, we have prepared the following amendment to our final design contract. Additional work is summarized as follows:

Task 4: Hydraulic Design (LOMR)

Based on current floodplain mapping, the project is located within Zone AE (Floodway) and we expect a Letter of Map Revision (LOMR) will be required. We understand that the LOMR process can vary depending on agency review and requests and that it can become an extensive effort. To account for this, we have added some additional hours as well as assumptions to better define this scope.

Services

- Acquire floodway data and model.
- Modify existing floodway model to include recent apartment development.
- Develop model/analysis.
- Mapping of proposed floodplain/floodway.
- Prepare submittal package.
- Revision 1 based on FEMA response/request for additional information.
- Revision 2 based on FEMA response/request for additional information.
- Final correspondence.

Deliverables

- Approved/accepted LOMR.

Provided by City

- Participate in process and provide available data.

Assumptions

- CLOMR will not be required.
- Two rounds of revisions requested by reviewer.
- Existing HEC-RAS floodway model from 2021 is available from DNR.
- No Endangered species survey required.

Task 9 – Public Engagement

Per your request, we have added a public engagement task. LHB will prepare two additional renderings to help convey the planned design to the neighbors, stakeholders and City reviewers. We will also prepare other supporting exhibits for the public information meeting. LHB will participate in one in person public information meeting to inform the public of the upcoming project.

Services

- Develop renderings (assume 2 additional).
- LHB will create and print display boards, handouts and layouts.
- Participate in public information meeting (assume 1 in person).

Deliverables

- Public Meeting materials, agendas, and minutes.

Provided by City

- Participate in public meeting and ensure key staff are in attendance.
- Coordinate/reserve room for public meeting.
- Prepare and send meeting invites/notifications.

Task 10 – Construction Observation Services

Based on our discussions, we have added a construction observation task. This task will include full time on-site construction observation and documentation as well as construction staking, final record drawings and project closeout.

Services

- Attend preconstruction meeting hosted by City of Duluth (Engineer and Inspectors).
- Review and approve shop drawings and submittals.
- Prepare staking files and provide construction staking.
- Coordination of Material Testing.
- Full time construction observation & documentation (assume 50 hours/week for 22 weeks).
- Periodic site visits by project engineer if/as needed.
- Attend weekly on-site construction meetings.
- Prepare draft pay estimates in One Office for review and approval by City.
- Prepare required change orders for review and approval by City.
- Schedule post-construction walk through with the contractor and prepare and track punch list.
- Record drawing survey (this survey will also be used for the LOMR process).
- Prepare record drawings.
- Assemble and submit complete project closeout in accordance with City standards.

Deliverables

- Timely review and approval of shop drawings and submittals.
- Record Drawings accurately depicting the as-constructed state of the project.
- All required documentation of the project in accordance with City standards.
- Staking Files (assume 1 trip to set control and 6 trips for survey staking).
- Accurately and efficiently staked project.
- Documented/completed punch list.
- Complete closeout finals package, indexed, bound and neatly organized.

Provided by City

- Set up and run preconstruction meeting.
- Collaborate and provide input on submittals, construction issues, etc.
- Set up and run weekly construction meetings.
- Review and approve periodic and final pay estimates.
- Review and approve change orders.
- Attend final walk through.
- Review and comment on various closeout materials.
- Assist with contractor issues.

Archaeological Review Services

LHB will partner with Duluth Archaeology Center, LLC (DAC) to provide archaeological review services for the project. DAC will perform a Phase 1A literature review and a Phase 1 field survey if recommended by the literature review. The results will be summarized in a report. Please find detailed archaeological review proposal attached.

Construction Material Testing

LHB will partner with Braun Intertec for material testing during construction. Please find detailed material testing proposal attached.

Schedule

- Final Plans and Specifications completed by December 2025.
- Construction Summer 2026.

Proposed Fee

LHB proposes an hourly fee with an estimate of Two Hundred Fifty-Four Thousand Seven Hundred Eighteen Dollars ($254,718) including reimbursable expenses for this amendment.

We appreciate the opportunity to provide you with our services and look forward to working with you. Please contact me at 218.249.7152 if you have any questions.

LHB, INC.

MEGAN GOPLIN, PE
CIVIL ENGINEERING MANAGER

JON SIITER , PE
ENGINEERING DIRECTOR

Attachments:
LHB Fee Estimate Worksheet – Amendment 01
Duluth Archaeology Center Proposal
Braun Intertec Material Testing Proposal

c: LHB Project No. 240078

LHB

FEE ESTIMATE

Project Name	**Palm Street Smart Pond Final Design - Amendment 01**
Client	**City of Duluth**
Preparer	**LHB**
Project Number	**240078**
Date	**May 15, 2025**

Project Breakdown Task Description	P1 Project Principal $ 210	P4 Project Manager $ 196	P5 Drainage Lead $ 192	P8 Drainage Eng. $ 152	T3 Senior Tech. $ 119	P9 Structural Eng. $ 146	P10 Structural Eng. $ 135	T7 Senior Tech. $ 100	P5 Elec. Eng. $ 185	P13 Landscape Arch. $ 111	P5 Land Surveyor $ 180	T6 Survey Tech $ 105	P8 Wetland Specialist $ 156	Total Labor Costs ($)
Task 4 - Hydraulic Design (LOMR)														**$ 42,640.00**
Acquire floodway data & model		4	8	16	8									$ 5,704.00
Existing floodway model modifications			12	12										$ 4,128.00
Develop LOMR Model & Analysis			40	8										$ 8,896.00
Mapping of proposed floodplain/floodway			16	16	16									$ 7,408.00
LOMR Submittal Preparation	2	4	16											$ 4,276.00
LOMR Round 1 Revisions		4	20	4	4									$ 5,708.00
LOMR Round 2 Revisions		2	12	4	4									$ 3,780.00
Final Correspondence	2	4	8											$ 2,740.00
Task 9 - Public Engagement														**$ 6,480.00**
Additional Renderings (assume 2 additional)		1			12					16				$ 3,400.00
Meeting Exhibits and Coordination		4			16									$ 2,688.00
Public Information Meeting (assume 1)		2												$ 392.00
Task 10 - Construction Observation														**$ 172,110.00**
Pre-Construction Meeting		1			1									$ 315.00
Shop Drawing Review		8	8											$ 3,104.00
Prepare Staking Files					12							12		$ 2,688.00
Construction Staking	2	6									24	52		$ 11,376.00
Material Testing Coordination		4												$ 784.00
On-Site Construction Observation (Assume 50 hrs./week for 22 weeks)					1,100									$ 130,900.00
Project Engineer Site Visits (Assume 6)		6												$ 1,176.00
Weekly Construction Meetings		22												$ 4,312.00
Punch List Walk and Tracking		2			12									$ 1,820.00
Record Drawing Survey											6	16		$ 2,760.00
Prepare Record Drawings		4			24									$ 3,640.00
Project Closeout		10	10		45									$ 9,235.00
														$ -
														$ -
Total Hours	6	88	150	60	1,254	-	-	-	-	16	30	80	-	

Travel Expenses	Qty	Rate	Cost
Travel Exp (Airfare, Meals, Hotel, Rental Car, Gas, etc.)			-
4WD Survey Truck (includes 124 miles in a day)	7	125.00	875.00
GPS Unit	1	200.00	200.00
DiNi Level	1	50.00	50.00
RoboticTotal Station	7	175.00	1,225.00
		Total Travel Costs	2,350.00

Other Direct Expenses	Cost
LOMR Fees	8,000.00
Total Direct Costs	8,000.00

Labor Cost	$ 221,230.00
Travel Costs	$ 2,350.00
Direct Costs	$ 8,000.00
Archaeology (sub)	$ 7,470.87
Material Testing (sub)	$ 15,668.00
Total Estimated Cost	$ 254,718.87

SCOPE OF WORK: PHASE IA ARCHAEOLOGICAL REVIEW AND PHASE I FIELD SURVEY OF PALM STREET STORMWATER EXPANSION, CITY OF DULUTH, ST. LOUIS COUNTY, MINNESOTA

I. FIRM NAME Duluth Archaeology Center. L.L.C.
5910 Fremont St. Suite 1, Duluth MN 55807

Dr. Susan Mulholland (president)
tel 218/624-5489, fax 218/249-0765, email archcenter @ aol.com

II. PROJECT OBJECTIVES

The objective of the project is to conduct Phase IA archaeological review for expansion of the stormwater system at the Palm Street and South Blackman Avenue intersection in Duluth, St. Louis County, Minnesota. The Area of Potential Effects (APE) includes the stormwater expansion area west of South Blackman Avenue and the pipeline area to the east; the APE is owned by the City of Duluth. Standard Phase IA archaeological review will determine 1) if historic properties have been previously recorded in or adjacent to the project APEs, 2) if the topographic and other environmental characteristics indicate potential for unrecorded historic properties within the project APEs, 3) if previous disturbance of project ground surfaces can be documented, and 4) potential impacts of the proposed project on recorded or possible unrecorded historic properties. The investigation will be reported to SHPO standards (Anfinson 2011). A budget for a Phase I archaeological field survey is included in case the Phase IA review results in a recommendation for field survey. If Phase I survey is requested, both phases will be reported in a combined report.

III. WORK PLAN

Contractor will complete the following tasks for Phase IA office review:

– *Task 1: administration*
Contractor will conduct accounting and record keeping.

- *Task 2: office review research*
Contractor will conduct background literature research for previous surveys and recorded sites; review topographic and other environmental conditions (from documents) for potential of unrecorded archaeological sites; consider any recorded previous disturbances in the project (as indicated by the client); consider impacts from proposed project on known and unknown historic properties.

– *Task 3: reporting (done separately if Phase I survey is not conducted)*
Contractor will prepare a report to state standards (Anfinson 2011). The report will include recommendations for any further archaeological investigations.

Contractor will complete the following tasks for Phase I field survey (if requested):

- *1. Administration*
  Contractor will conduct accounting and record keeping; conduct prefield activities; request a Gopher State locate; obtain a State archaeology license. Client will provide permission and information on survey boundaries.

- *2. Phase I archaeological survey*
  Contractor will conduct archaeological survey of the APE using pedestrian walkover with shovel testing as appropriate to specific terrain/ground conditions. Disturbed, water-saturated, sloping, and bedrock terrain does not need shovel testing.

- *3. Laboratory Work and Reporting*
  Contractor will conduct laboratory cleaning/analysis of any recovered artifacts and prepare maps and state site forms if needed. Contractor will prepare a combined report on the results of the Phase I survey and Phase IA office review), including site form(s), all activities, results, and recommendations regarding any further recommended archaeological investigations.

Project Schedule
Contractor will start work after authorization from the client by receipt of a contract. Office review will require up to early June 2025 to conduct research and to write the report. Efforts will be made to expedite the review if possible. Field survey (if needed) will require an additional 1-2 days (depending on what is found). Reporting will depend on whether the Phase I is recommended (separate Phase IA report estimated by end of June) and if indications of sites are found (combined Phase IA + I report estimated by end of August).

Curation
Artifacts recovered from public lands must be curated at the Minnesota Historical Society or an approved facility as per the State archaeology license. Curation costs are included in the budget and would be charged if artifacts are found and collected.

IV. BUDGET

The budgets are prepared on separate sheets. Totals are not to exceed quotes; expenses will be charged only as incurred. Estimated curation costs are based on 1 site; additional funds may be required if additional sites or large amounts of artifacts are collected.

NOTE: If human remains or indications of burials are identified, additional time and funds may be required for notification and consultation with appropriate agencies (Anfinson 2008) under the Private Cemeteries Act (MnST 307.08).

V. PERSONNEL

- Dr. Susan Mulholland: PI and President of DAC
  Registered Professional Archaeologist (RPA)

VI: APPROVED BY

Name: Susan C. Mulholland
Date: May 8, 2025
Title: President, Duluth Archaeology Center

REFERENCES

Anfinson, S.F. 2011 *State Archaeologist's Manual for Archaeological Projects in Minnesota*. Office of the State Archaeologist, Fort Snelling History Center, St. Paul.

Anfinson, S.F. 2008. *State Archaeologist's Procedures for Implementing Minnesota's Private Cemeteries Act (MS 307.08)*. Office of the State Archaeologist, Minnesota Department of Administration, St. Paul.

PHASE IA ARCHAEOLOGICAL REVIEW OF PALM STREET STORMWATER EXPANSION, CITY OF DULUTH, ST. LOUIS COUNTY, MINNESOTA

ADMINISTRATION & RESEARCH		
Principal Investigator	20 hr. @ $65.92	$ 1,318.40
Account Manager	2 hr. @ $48.31	96.62
photocopies	150 @ $0.10	15.00
supplies		25.00
TOTAL TASKS 1, 2		$1,455.02
REPORTING		
Principal Investigator	10 hr. @ $65.92	$ 659.20
Computer Supervisor	6 hr. @ $46.45	278.70
Photocopies	200 @ $0.10	20.00
Report production		10.00
Postage/Delivery		10.00
TOTAL TASK 3		$ 977.90
TOTAL PROJECT COSTS		**$ 2,432.92**

PHASE I SURVEY OF PALM STREET STORMWATER EXPANSION, ST. LOUIS COUNTY, MINNESOTA

TASK 1: ADMINISTRATION			
Principal Investigator	6 hr. @ $65.92	$ 395.52	
Account Manager	3 hr. @ $48.31	144.93	
Supplies		25.00	
photocopies	150 @ $0.10	15.00	
TOTAL PRE-FIELD			$ 580.45
TASK 2: FIELD SURVEY			
Principal Investigator	12 hr. @ $65.92	$ 791.04	
Field Technician	12 hr. @ $46.45	557.40	
mileage	50 mi. @ $0.67	33.50	
TOTAL FIELD SURVEY			$1,381.94
TASK 3: LAB ANALYSIS/REPORT PRODUCTION			
Principal Investigator	14 hr. @ $65.92	$ 922.88	
Computer Supervisor	4 hr. @ $46.45	185.80	
Lab Technician	8 hr. @ $45.97	367.76	
Photocopies	150 @ $0.10	15.00	
Report production		25.00	
Postage/Delivery		10.00	
TOTAL REPORT PRODUCTION			$ 1,526.44
TOTAL PROJECT COSTS [<u>WITHOUT CURATION</u>]			**$3,488.83**
CURATION			
Accession charge	1 site @ $95	$ 95.00	
Storage box	1 cu.ft. @ $365	365.00	
Processing fee	1 @ $115	115.00	
Principal Investigator	6 hr. @ $65.92	395.52	
Lab supervisor	8 hr. @ $46.45	371.60	
Mileage	300 mi. @ $0.67	201.00	
Parking		6.00	
TOTAL CURATION			$ 1,549.12
TOTAL PROJECT COST WITH CURATION			**$ 5,037.95**

TOTAL BOTH PHASES		
Phase IA office review	$ 2,432.92	
Phase I field survey	$ 5,037.95	
TOTAL PHASE IA + I		**$ 7,470.87**

Braun Intertec Corporation
4511 West First Street, Suite 4
Duluth, MN 55807

Phone: 218.624.4967
Fax: 952.995.2020
Web: braunintertec.com

May 8, 2025 Proposal QTB215449

Megan Goplin, PE
LHB, Inc.
21 West Superior Street, Suite 500
Duluth, MN 55802

Re: Proposal for Construction Materials Testing Services
Palm Street Permanent Stormwater Management System Improvements
City Project No. 2208
East Palm Street between South Blackman Avenue and Harding Avenue
Duluth, Minnesota

Dear Ms. Goplin:

Braun Intertec Corporation is pleased to submit this proposal to provide construction materials testing services for the Palm Street Permanent Stormwater Management System Improvements project in Duluth, Minnesota.

We have completed the Geotechnical Evaluation and the Phase I Environmental Site Assessment, so we have a unique understanding of the site and construction challenges. We can aid the construction team by applying this experience and transferring our knowledge developed during the design phase which will provide professional continuity to the construction. Our work on the project to date gives us familiarity with the project team and design development which allows us to understand some of the considerations used when developing the project's design.

Since our inception in 1957, we have grown into one of the largest employee owned engineering firms in the nation. With more than 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 office is located within six miles of the site, minimizing travel times and trip expenses. This proximity also provides the opportunity to quickly mobilize to the site when unforeseen needs arise.

Our Understanding of Project

This project will include installation of new storm sewer along a portion of East Palm Street. A new stormwater basin will also be constructed on the south side of East Palm Street, west of South Blackman Avenue. Basin construction will include a sheet pile retaining wall. Roadway reconstruction along with new concrete curb and gutter, driveways, and a bituminous shared-use path will be required. Road reconstruction will include subgrade preparation and bituminous paving.

Available Project Information

This proposal was prepared using the following documents and information.

- Project 95-percent plans prepared by the City of Duluth, dated April 9, 2024.
- A Geotechnical Evaluation Report prepared by Braun Intertec Corporation, for project B2406482 and dated September 5, 2024.

We were not provided with any specifications or other quality control documents for this project, however, we assume the project will be following the City of Duluth Construction Standards.

Scope of Services

Services are performed under the direction of a licensed professional engineer. Testing services will be performed on an on-call, as-needed basis as requested and scheduled by you or your on-site project representative. After reviewing available information to determine compliance with project plans and/or specifications and other design or construction documents, our scope of services for the project will be limited to the tasks defined below.

Soil Related Services

- Measure the in-place dry density, moisture content and relative compaction of fill placed for pavement and/or utility support, of utility backfill, retaining wall backfill, and aggregate base for compliance with the project documents. This task includes performing laboratory Proctor tests to provide maximum dry densities from which the relative compaction of fill can be determined, as well as the use of a nuclear density gauge to measure in-place dry densities and moisture contents.
- Sample and test aggregate base materials for compliance with the project documents. This task includes laboratory gradation testing of aggregate base material.

Concrete Related Services

- Sample and test fresh concrete associated with, pavement, curb-and-gutter and sidewalks for compliance with the project documents, and cast test cylinders for laboratory compressive strength testing. We assume that we will be able to appropriately dispose of excess concrete (and associated wash water) on site at no additional cost to us.
- Measure and report the compressive strength of the concrete test cylinders for compliance with the project documents. A set of three cylinders will be tested at 28 days for each set cast for general concrete. A set of five cylinders will be cast for the retaining wall placements. If field cure cylinders are requested, each additional cylinder will be charged at the unit price listed in our cost estimate.
- 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. Review and periodically observe contractor's quality control gradation and moisture testing of coarse and fine aggregates. Perform concrete plant monitoring per MnDOT 2461 specification and the City of Duluth Construction Standards.

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. Perform bituminous plant monitoring per MnDOT's 2360 specification and the City of Duluth Construction Standards.

- Collect verification samples per MnDOT's 2360 specification and randomly select one sample per day per mix to run quality assurance tests on. Perform quality assurance tests on the verification samples which include the following tests: Rice specific gravity, asphalt content, extracted aggregate gradation, gyratory density, coarse aggregate angularity, and fine aggregate angularity. Compare agency test results with contractor's test results for compliance with MnDOT 2360 specification.

- Mark locations and observe contractor coring. Measure the thickness and density of the obtained cores.

Consulting, Project Communication and Reporting Services

- Project management, including scheduling of our field personnel.

- Review test reports, and communicating with you and the parties you may designate such as the project contractor(s), and other project team members, as needed.

- Transmit test results to the project team on a weekly basis.

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:

- We assume it will take six trips to complete the nuclear density gauge testing on this project.

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

- We assume any required rebar observations will be completed by the project representative's construction oversight manager.

- We assume your full time on-site construction observer will observe the test rolling for this project.

- We assume bituminous paving will be completed in two days for this project.
- We assume the project engineer of record will review and approve 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. If the pace of construction is different than described above, this proposal should be revised.

Cost and Invoicing

We will furnish the services described herein for an estimated fee of **$15,668**. **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. The actual cost of our services will be based on the actual units or hours expended to meet the requirements of the project documents.

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 6:00 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 business 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 listed hourly rate for the service provided. The factor for services provided on Sunday or legal holidays will be 1.5 times the listed hourly rate for the service provided. We have not included premiums for overtime in our cost estimate; however, we recommend that allowances and contingencies be made for overtime charges based on conversations with the contractor. You will be billed only for services provided on a time and materials basis.

Because our services are directly controlled by the schedule and performance of others, the actual cost may vary from our estimate. It is difficult to project all of the services and the quantity of services that may be required for any project. If services are required that are not discussed above, we will provide them at the rates shown in the attached table or, if not shown, at our current Schedule of Charges. We will invoice you on a monthly 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 Agreement Between LHB and Subconsultant for Professional Services, between LHB, Inc., and Braun Intertec Corporation, dated June 26, 2012.

To have questions answered or schedule a time to meet and discuss our approach to this project further, please contact Mickale Endres (507.514.0514 or MEndres@braunintertec.com).

Sincerely,

BRAUN INTERTEC CORPORATION

Mickale L. Endres, PE
Senior Manager, Project Engineer

Joseph C. Butler, PE
Director, Senior Engineer

Attachment:
Project Proposal

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

QTB215449

Palm St. Permanent Stormwater Management System Improvements

Client:	Work Site Address:	Service Description:
LHB, Inc. Megan Goplin 21 West Superior St., Suite 500 Duluth, MN 55802 (218) 727-8446	East Palm Street, between South Blackman Avenue and Harding Avenue Duluth, MN 55811	Construction Materials Testing

	Description	Quantity	Units	Unit Price	Extension
Phase 1	**MnDOT Testing**				
Activity 1.1	**Soil Testing**				**$3,450.00**
207	**Compaction Testing - Nuclear**	15.00	Hour	95.00	$1,425.00
	Work Activity Detail ***Qty Units*** ***Hrs/Unit*** ***Extension***				
	Utilities, Storm Sewer *4.00 Trips* *2.50* *10.00*				
	Aggregate Base *2.00 Trips* *2.50* *5.00*				
1308	**Nuclear moisture-density meter charge, per hour**	15.00	Each	26.00	$390.00
217	**Compaction Testing - DCP's**		Hour	95.00	$.00
1530AG	**Asphalt Content of Aggregate Base, per sample**		Each	160.00	$.00
209	**Sample pick-up**	4.00	Hour	95.00	$380.00
	Work Activity Detail ***Qty Units*** ***Hrs/Unit*** ***Extension***				
	Sample Pick-up *2.00 Trips* *2.00* *4.00*				
1318	**Moisture Density Relationship (Proctor)**	3.00	Each	200.00	$600.00
1162	**Sieve Analysis with 200 wash, per sample**	3.00	Each	165.00	$495.00
1861	**CMT Trip Charge**	8.00	Each	20.00	$160.00
Activity 1.2	**Concrete Testing**				**$4,094.00**
261	**Concrete Testing**	15.00	Hour	95.00	$1,425.00
	Work Activity Detail ***Qty Units*** ***Hrs/Unit*** ***Extension***				
	Curb & Gutter *4.00 Trips* *2.50* *10.00*				
	Sidewalks and Driveway Aprons *2.00 Trips* *2.50* *5.00*				
1364	**Compressive strength of concrete cylinders, per specimen**	18.00	Each	33.00	$594.00
	Work Activity Detail ***Qty Units*** ***Hrs/Unit*** ***Extension***				
	Curb & Gutter *4.00 Sets* *3.00* *12.00*				
	Sidewalks and Driveway Aprons *2.00 Sets* *3.00* *6.00*				
1162CO	**Sieve Analysis, per sample**	2.00	Each	165.00	$330.00
215	**Concrete Ready Mix Plant Monitoring**	6.00	Hour	105.00	$630.00
	Work Activity Detail ***Qty Units*** ***Hrs/Unit*** ***Extension***				
	Ready Mix Plant Monitoring *1.00 Trip* *6.00* *6.00*				
278	**Concrete Cylinder Pick up**	9.00	Hour	95.00	$855.00
	Work Activity Detail ***Qty Units*** ***Hrs/Unit*** ***Extension***				
	Cylinder Pickup *6.00 Trips* *1.50* *9.00*				
1861	**CMT Trip Charge**	13.00	Each	20.00	$260.00
Activity 1.3	**Pavement Testing**				**$4,164.00**
222	**Bituminous Verification Testing**	12.00	Hour	105.00	$1,260.00
	Work Activity Detail ***Qty Units*** ***Hrs/Unit*** ***Extension***				
	Bituminous Plant Monitoring *2.00 Trips* *6.00* *12.00*				
2689	**MnDOT Bituminous Verification, per sample**	2.00	Each	720.00	$1,440.00
221	**Mark and Observe Contractor Coring**	12.00	Hour	105.00	$1,260.00
	Work Activity Detail ***Qty Units*** ***Hrs/Unit*** ***Extension***				
	Mark & Observe Contractor Coring & Testing *2.00 Trips* *6.00* *12.00*				

Project Proposal

QTB215449

Palm St. Permanent Stormwater Management System Improvements

	1542	**Thickness and Density of Bituminous Core**	2.00	Each	62.00	$124.00
	1861	**CMT Trip Charge**	4.00	Each	20.00	$80.00
Activity 1.4		**Project Management**				**$3,960.00**
	226	**Project Manager**	10.00	Hour	180.00	$1,800.00
	1230	**MnDOT Final Report**	1.00	Each	1,000.00	$1,000.00
	228	**Senior Project Manager**	2.00	Hour	230.00	$460.00
	138	**Project Assistant**	5.00	Hour	88.00	$440.00
	125	**Project Control Specialist**	2.00	Hour	130.00	$260.00
					Phase 1 Total:	**$15,668.00**

Proposal Total:	**$15,668.00**