McAdams
80 Charlotte Street
Suite 40
Asheville, NC 28801
919. 361. 5000

TOB25001.15

May 14, 2026

Matt Begley, MPA
Town of Black Mountain
160 Midland Avenue
Black Mountain, North Carolina 28711

RE: Downtown Stormwater Improvements Project – Phase 1
Black Mountain, North Carolina
TOB25001.15

Dear Mr. Begley,

This proposal includes scope and fee summaries for the Downtown Stormwater Improvements Project in Black Mountain, North Carolina. Outlined below is our understanding of the project and the detailed tasks associated with our overall project effort.

Project Understanding

Site + Project Description

The Town of Black Mountain is seeking engineering support to address stormwater inlet capacity issues within their downtown corridor. There is a lack of inlets on Cherry Street, which is causing overland flooding down the street until the intersection with Sutton Avenue. Additionally, the stormwater infrastructure in the project area is aging and the majority of the pipes are either Terracotta Clay or Corrugated Metal material. This phase of the project proposes to improve the existing outfall through upsizing the pipe and upgrading the pipe material of the green highlighted pipes in **Figure 1**. Focusing this phase on upgrades to the downstream system will allow the Town flexibility in future phases to increase capacity of the upstream system along both Cherry and Broadway Street.

The Town has requested a consultant to evaluate existing conditions, develop downstream alternatives, and prepare construction documents for the necessary improvements. The project area is within an existing Norfolk Southern railway right-of-way, and there are various prevalent utilities also within the project area. We recognize that coordination with NCDOT, Norfolk Southern Railroad, and the U.S. Army Corps of Engineers, along with proximity to other utilities, businesses, and major downtown pedestrian corridors, presents significant technical and logistical challenges. The Town also requires comprehensive design, bidding assistance, and construction administration support to deliver a successful project.

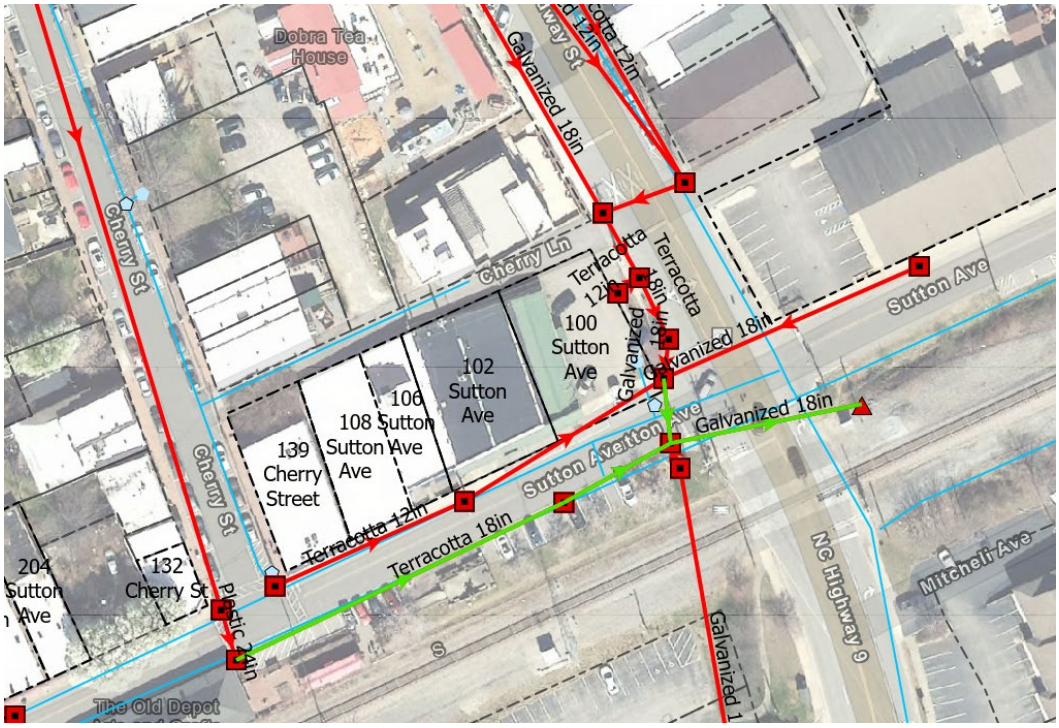


Figure 1: Project Site Location (Green Pipes)

Proposed Scope

McAdams proposes professional engineering services which will include the following elements:

- Project management services throughout the duration of the contract;
- Topographic + Location survey;
- Subsurface Utility Engineering (Level B + Level A);
- Geotechnical Engineering Services;
- Private Utility Coordination;
- NCDOT Coordination;
- Norfolk Southern Railroad Coordination;
- Evaluation of Existing Conditions and Preparation of a Preliminary Engineering Report;
- Construction Document Development and Permitting with the Town of Black Mountain;
- Construction Document Permitting – Outside Agencies (USACE); and
- Bid Phase and Construction Administration Services.

Assumptions

This proposal is based on the following assumptions:

- This project will not require a Sediment and Erosion Control plan approved by NCDEQ (less than 1-ac disturbed area);
- This project will not be subject to review or permitting requirements of the State Construction Office (SCO), as no building improvements are proposed;
- A Traffic Impact Analysis (TIA) will not be required;
- All submittal, application, review, and permit fees are to be paid by the Owner;
- No structural services are included in the scope of this agreement;
- Any public notifications will be coordinated through the Town of Black Mountain;

- Technical Specifications are intended to be based on latest versions from the Engineers Joint Contract Documents Committee (EJCDC), NCDOT, and / or other preferred documentation provided by the Town of Black Mountain; and
- The project will be designed, permitted, and bid as one (1) package with no separate or early packages.

Proposed Services + Fees

We propose the following services (Alphanumeric task numbers are for internal coding purposes):

Due Diligence + Preliminary Design Phase

A4.10 PROJECT ADMINISTRATION:

> FEE: $17,735

Scope of this work consists of all project coordination involved with general project management and execution, as well as coordination with the geotechnical engineer, Town of Black Mountain, USACE, NCDOT, Norfolk Southern, and other general parties as needed. Other pertinent tasks include:

- Project work plan development and kickoff meeting with Town staff;
- Initial project due diligence, site visits (1 initial visit) and other data reconnaissance;
- Monthly progress meetings;
- Attendance at one City Council meeting as needed;
- Coordination with USACE, NCDOT, and Norfolk Southern;
- Periodic project updates and status reports; and
- Coordination with Private Utility entities.

A4.20 HYDROLOGIC AND HYDRAULIC MODELING:

> FEE: $24,270

Scope of this work consists of hydrologic and hydraulic (H+H) modeling of existing conditions and design alternatives. This work includes:

- McAdams will use survey data within project limits and supplement with GIS utility information to develop a hydrologic and hydraulic model of the existing stormwater system within the identified drainage area;
- Existing and design alternative system performance will be documented during typical design storm recurrence intervals (2-, 10-, 25-, 50-, and 100-year, 24-hour SCS Type II storms);
- The analysis will be modeled using PCSWMM software, with the downstream analysis point being the outfall to the drainage ditch along Sutton Avenue; and
- Existing and design alternatives will use current zoning densities for hydrologic calculations.

A4.30 PRELIMINARY ENGINEERING REPORT:

> FEE: $10,410

McAdams will compile results of the existing conditions analysis, alternatives analysis, known site constraints, and Opinion of Probable Construction Cost (OPCC) into a preliminary engineering report which will include the following:

- Narrative write-up summarizing methods, findings, and recommendations;
- Existing conditions hydrologic and hydraulic model results, including drainage area maps;
- Up to two (2) Primary Alternatives hydrologic and hydraulic model results;
- Up to two (2) conceptual level exhibits of the Primary Alternatives solutions;
- Up to two (2) preliminary OPCCs for recommended solutions; and
- Discussion of potential construction challenges.

Surveying Services

B2.40 TOPOGRAPHIC + LOCATION SURVEY:

> FEE: $13,000

Conduct a field survey of the site as shown in **Figure 2** below. Prepare a Topographic Survey Map in accordance with North Carolina Minimum Standards for Surveying. Contours will be mapped at 1-foot intervals. Location of individual trees is not included. Services included are:

- Drainage features survey shall include top of bank shots and channel shots with break lines to accurately depict drainage features within the survey limits;
- Drives- location, type and width;
- Buildings- location type and size;
- Parking lots- locations and layout;
- Landscape areas, woods lines,
- Signs- location, type and size;
- Pavement Markings;
- Fences- location, type and size; and
- Utilities (valves, manholes, meters and pedestals) - location and type. Locations of underground utilities will be based on above ground structures and Class B subsurface utility engineering (SUE) (if provided);
- Storm Drainage – location, size (with sizes labeled on each side of inlet), type, top, invert elevations, and inlet and outlet locations both inside and outside planimetric limits;
- Sanitary Sewer – location, size, type, top, and invert elevations; and
- Water – location of valves, meters, and hydrants.



Figure 2: Approximate boundary of survey location

B12.30 SUBSURFACE UTILITY (SUE) MARKINGS (LEVEL B):

FEE: $6,000

Field mark underground utilities approximately within the Sutton Avenue project area using electromagnetic equipment and mark them with spray paint. Structures that cannot be directly accessed are to be shown to the extent of available information, including utility maps. No guarantee is made that the underground utilities shown comprise all such utilities in the area, either in service or abandoned, nor that the underground utilities shown are in the exact location indicated, although they will be located as accurately as possible from information available. Physical location of the underground utilities utilizing Subsurface Utility Vacuum Extraction can be quoted if requested.

B12.35 SUE – LEVEL A (POT HOLING) – TEST HOLES – VACUUM EXCAVATION (OPTIONAL):

FEE: $9,000

Level A – Test Hole @ $1,500 / Per Hole-location – Up to six (6) locations

Level A SUE – We will perform pot hole investigations at up to six (6) locations to determine information such as size, depth, and material on critical utilities. All information will be incorporated into test hole forms and provided to the Client at the conclusion of the project. The number of test holes may be revised at Client's request upon the completion of the SUE Level B investigation. Depending on the horizontal spacing of the utilities, certain test holes may cover multiple utilities in the same hole and reduce the overall number of test holes needed to obtain

the vertical information needed. Additional charges for test holes over 6' deep will be $100 / foot. If during the excavation process, we encounter backfill material that is neither soil nor gravel we will first attempt to move the test hole to an acceptable location. If unacceptable backfill is encountered again, we will stop all work on that particular test hole and notify your designated representative of our findings.

Traffic control is not included with this scope, but McAdams can add services on a per day basis as needed for additional cost.

Design Drawing + Permitting Services

D4.10 CONSTRUCTION DRAWINGS:

> FEE: $45,800

The Engineer shall prepare and submit design packages at the 30%, 70%, and 100% levels. Submittals shall be provided in PDF format and include construction drawings, traffic control plans during construction, and updated engineers' cost estimates.

- **30% (Preliminary Design):** Submit initial plan / profile and modeling to establish alignment for review.
- **70% (Draft Final Design):** Submit construction plans and supporting documents at sufficient detail for Town, utility, and agency review.
- **100% (Final Design):** Submit sealed and signed plans, quantities, cost estimate, and complete digital design files (CAD and PDFs) suitable for bidding and construction.

All submittals shall progressively advance design completeness to identify stormwater systems, utility conflicts, easements, constructability, permitting needs, and project impacts. The task includes review meetings at each phase and written responses to Town comments. Final approval does not relieve the Engineer of responsibility for errors or omissions.

D14.10 TRAFFIC CONTROL PLAN:

> FEE: $8,500

McAdams will provide traffic control plans for the proposed design. This will include consideration for vehicle and pedestrian detours, road closures, and night-time construction as needed. The plans will conform to NCDOT standards and Manual on Uniform Traffic Control Devices (MUTCD).

E4.10 PERMITTING:

> Hourly: $16,300

McAdams will provide permitting services and coordination with the following impacted agencies throughout the course of the project in order to obtain applicable permits or approvals:

- Town of Black Mountain;
  - Development Services;
  - Historic Preservation Commission;

- NCDOT;
- Railroad (Norfolk Southern); and
- USACE.

L4.10 GEOTECHNICAL DESIGN + SUPPORT:

FEE: $17,250

McAdams' geotechnical subconsultant, S+ME, Inc. will provide the following scope for geotechnical services to help determine the subsurface conditions:

- Contact the North Carolina One Call Center (NC 811) to field mark member underground utilities near the soil test borings (this is required by law). We anticipate McAdams will perform SUE services and will identify private utilities not marked by NC 811 to us;
- Field layout of soil test boring locations;
- Subcontract a traffic control service to perform a lane closure during our work if drilling cannot be performed from the parking areas along Sutton Avenue;
- Mobilize a truck-, ATV- or track-mounted drill rig to the site;
- Conduct 2 to 3 soil test borings along the proposed repair area. The borings are planned to be drilled to 15 to 20 feet, or shallower auger refusal;
- Collect 2 bulk samples from the borings;
- Perform laboratory testing on selected soil samples consisting of grain size, moisture content, Atterberg limits, and standard Proctor tests;
- Attempt to measure groundwater levels at termination of each boring;
- Backfill borings with soil cuttings and install mechanical hole plugs to help reduce borehole settlement;
- Patch the surface of the borings in existing pavement areas with a cold-mix asphalt patch material;
- Prepare an engineering report summarizing our understanding of the project, exploration, subsurface conditions, analyses, and recommendations. Our report will address and/or include:
  - Boring location plan;
  - Boring logs;
  - Laboratory test data;
  - Description of the project background, existing site conditions, and area geology;
  - Presence, character, and consistency of existing fill and alluvial soils (if encountered) and residual soils;
  - Presence and depth of weathered rock, mass rock, and/or subsurface water in the borings (if encountered);
  - General suitability of existing subgrade soils for supporting the proposed storm lines;
  - General suitability of on-site soils for use as trench backfill;
  - General recommendations for trench backfill placement; and
  - General trench bedding / stabilization recommendations for the storm lines.

L4.20 NATIONWIDE / GENERAL CERTIFICATION PERMITTING FOR SURFACE WATER / WETLAND IMPACTS:

FEE: $5,040

McAdams' environmental subconsultant, NRC will prepare an Aquatic Resource Report using a data form and photographs provided by McAdams to obtain a delineation concurrence from the US Army Corps of Engineers,

which is suitable for permitting purposes. Guidance on avoiding and minimizing impacts, and on reducing mitigation costs, will be provided throughout the planning process. Once a replacement plan is finalized and impacts are sufficiently minimized, they will work with McAdams to prepare an application for a Nationwide Permit from the US Army Corps of Engineers and a Water Quality Certification from the NC Division of Water Resources.

This application requires assessments of the project's effect on federally protected species. USFWS's Information for Planning and Consultation online tool will be used to identify protected species and habitat that may be impacted and conduct a regulatory review of the project. NC Natural Heritage Data Explorer will be consulted to identify occurrences of natural resources located in the project area. NRC will rely on McAdams personnel to assist with habitat assessment for protected species. This information will be compiled and included with the application.

E4.15 SITE ASSESSMENT (SURFACE WATER / WETLAND DELINEATION):

> FEE: $1,520

McAdams will conduct detailed delineation of surface waters and wetlands present within the project area. This will be completed in general accordance with the 1987 Corps of Engineers Wetland Delineation Manual, the appropriate regional supplement, and the NC Division of Water Resources Methodology for Identification of Streams. Identified wetlands and streams within the project area will be evaluated using NC Wetland / Stream Assessment Methods to document the quality of these resources and support site plan permitting. Data forms and photographs will be sent to NRC to complete Nationwide / General Certification permitting for surface water / wetland impacts.

Assumptions:

- The Client will be responsible for notification of existing property owners and for assuring access to the site(s);
- Any previously completed environmental reports for the project site area (concurrence documents, Phase 1, Phase 2, or similar) will be provided by the Client to McAdams if necessary; and
- Specialized protected species surveys, archeological surveys, and specialized cultural resource surveys are not included in the scope of this Agreement. Should formal surveys become required, additional scope and fee will be provided at that time based on the identified species.

Bid + Construction Phase Services

H4.10 BID PHASE ASSISTANCE:

> FEE: $17,570

The Engineer shall provide the following bid phase services at the request of the Project Manager, including:

- In general, bid documents will include front ends, bid schedule of prices, general conditions (EJCDC or Town-selected format), technical specifications, and any relevant special project provisions for selected stormwater system replacement and construction drawings suitable for procurement for construction bid estimates from contractors;

- Attend and participate in up to one (1) pre-bid meeting. Engineer will help Town PM develop agenda, answer contractor questions regarding design plans and specifications, take notes and develop meeting minutes, and attend both in-office and follow-up field meeting at project site;
- Issue up to two (2) addenda; and
- Provide clarifications and information as requested by bidders that may arise after the pre-bid meeting.

H4.20 CONSTRUCTION PHASE ASSISTANCE:

> FEE: By hourly charges in accordance with the attached rate schedule, not to exceed $25,450

Provide limited construction oversight and management services for the duration of the construction contract for the project, including:

- Attendance at one (1) preconstruction meeting, either onsite, virtually, or at the Town's offices;
- Provide onsite, part time construction oversight and inspection assistance sufficient to certify that the work is in conformance with plans and specifications as well as to certify as-built construction documents at the end of the project. Assumes weekly site visits to observe the quality of construction for a duration of twenty-four (24) weeks, equating to twenty-four (24) site visits at three (3) hours each, equating to **72-hours** total of field observation time amongst consultant staff;
- Fulfill duties as Client's Representative per Article 10.01 of the EJCDC C-700 Standard General Contract;
- Review pertinent submittals and shop drawings;
- Assist with change order review, field directives, and RFI responses;
- Assist with review of contractor's pay applications;
- Participate, as needed, in Construction Progress Meetings; and
- Perform final walkthrough and generate punchlist for Contractor.

This scope assumes no more than six (6) months construction work. Should construction duration change considerably or be extended due to delays from the construction contractor, the Engineer may request additional services for any construction administration services and tasks, in accordance with the hourly rate schedule in effect at the time of the construction work. All additional service requests shall be made in coordination with the Project Manager.

I4.10 STORM DRAINAGE AS-BUILT CERTIFICATION:

> FEE: $3,560

The Engineer shall prepare the as-built submittal package utilizing the Contract Documents, post construction record survey, and Construction Contractor's final Record Documents. The Engineer shall sign and seal the as-built plans certifying conformance to the Contract Documentation, approved plans or any approved revisions, and all applicable permit / checklist requirements. The Engineer shall submit the as-built submittal to the Town in accordance with any checklist requirements.

- Coordination of an as-built post construction survey with the construction contractor and any impacted property owners after stormwater conveyance system has been installed and after first lift of asphalt. The as-

built survey shall be conducted and sealed by a licensed professional land surveyor providing services to the Engineer; and

- Prior to acceptance and use of the survey, the Engineer shall perform a field review of the survey to verify it is complete, accurate, and meets the requirements of the project scope and stormwater conveyance as-built submittal checklist. Engineer will manage the project in a manner so as to be responsive to the needs and schedule of the Town and the Engineer and assure the quality of the product.

Extra Services

J. ADDITIONAL SERVICES

When requested by the Client and confirmed by the Client and/or Firm in writing, the Firm shall perform services in addition to those described above in this Agreement and the Client shall compensate the Firm by hourly charges in accordance with the attached Rate Schedule.

K. EXPENSES + REIMBURSABLES

> FEE: Not to exceed $1,500

Valid expenses include reproduction, express delivery services, vehicular transportation at the rate established by the Internal Revenue Service current at the time the travel occurs, parking fees, permit fees, and postage fees with an anticipated total hourly not to exceed budget of **$1,500**. These expenses may be paid by the Town of Black Mountain in addition to the fees listed above. McAdams shall submit invoices for valid expenses with each payment request.

Fee Summary

Our proposed fee for the scope of services described herein is **$221,405**, excluding reimbursables, per the Professional Services Agreement. Please refer to the attached fee summary for more information.

Project Schedule

The Firm's services shall be performed as expeditiously as is consistent with professional skill and care and the orderly progress of the project. The following is the expected schedule for completion of work on this project:

Schedule to be mutually agreed upon between Client and Firm.

The time limits and schedule set forth above have been agreed to by the Client and Firm, but the time limits and schedule shall be extended for (1) reasonable cause, or for (2) any delays associated with the Firm's work on the project that are not the sole responsibility of the Firm.

Client Responsibilities

Client shall be responsible for the following:

- Notification to proceed;
- Timely approval of sketches presented for Client approval;

- Payment of all application and permit fees;
- Payment of invoices in accordance with Item 1 of Terms and Conditions;
- Notification to Firm of any problems, in accordance with Item 2 of Terms and Conditions.

Exclusions

The following services are not included in this Agreement:

- Off-site utility extensions or roadway improvements (may be quoted if required);
- Structural design of retaining walls, headwalls or stormwater facilities or structures;
- Traffic Impact Analysis;
- Color graphics for meetings or marketing purposes (will be quoted if required);
- Permit application, plans review or re-review fees;
- Detailed landscape, hardscape, irrigation or lighting design (can be quoted separately);
- Revised directives from Client after design has begun;
- Acquisition of easements; preparation of off-site easements;
- Flood studies for FEMA;
- Court appearances for litigation, or preparation for same;
- Any costs incurred by Client or Contractor due to changes required by the approving authority or their inspectors after construction drawings have been approved.

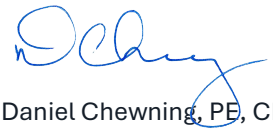
General Conditions

- The conditions set forth within the Professional Services Agreement dated January 4, 2024 shall apply to this Agreement.
- This proposal is valid for 30 days from the above date.
- Reimbursable expenses will be billed in accordance with the attached Rate Schedule.
- Client is responsible for all application and permit fees.

Conclusion

We appreciate this opportunity to propose our services. We are eager to pursue this project further and thank you for your consideration.

Sincerely,
McAdams



Daniel Chewning, PE, CFM | Project Manager, Water Resources
chewning@mcadamsco.com | 919. 361. 5000

DC/lf

Acceptance

By: _____ Date: _____

Name: _____

Title: _____

Accounting Information

Billing Contact: _____

Billing Contact Email Address: _____

Billing Contact Phone Number: _____

Billing Address: _____

_____

MCADAMS

Fee Schedule

Downtown Stormwater Conveyance Phase 1 / Town of Black Mountain

Date 14-May-26

Project #	TOB25001.15		

Task ID	Description	Fee	Fee Basis
A4.10	Project Administration	$17,735	Fixed Fee
A4.20	Hydrologic and Hydraulic Modeling	$24,270	Fixed Fee
A4.30	Preliminary Engineering Report	$10,410	Fixed Fee
B2.40	Topographic and Location Survey	$13,000	Fixed Fee
B12.30	Subsurface Utility (SUE) Markings (Level B)	$6,000	Fixed Fee
B12.35	SUE - Level A (Pot Holing) - Test Holes - Vacuum Excavation	$9,000	Fixed Fee
D4.10	Construction Drawings	$45,800	Fixed Fee
D14.10	Traffic Control Plan + Sequencing	$8,500	Fixed Fee
E4.10	Permitting	$16,300	Hourly Fee
L4.10	Geotechnical Design + Support	$17,250	Fixed Fee
L4.20	Nationwide/General Certification Permitting for Surface Water/Wetland Impacts	$5,040	Fixed Fee
E4.15	Site Assessment (Surface Water/Wetland Delineation)	$1,520	Fixed Fee
H4.10	Bid Phase Assistance	$17,570	Fixed Fee
H4.20	Construction Phase Assistance	$25,450	Hourly NTE Fee
I4.10	Storm Drainage As-Built Certification	$3,560	Fixed Fee
	Site Construction Drawing + Permitting Phase TOTAL	**$221,405**	
	Current Contract Total	**$221,405**	
	Running Contract Total	**$221,405**	

MCADAMS

Hourly Rate Schedule / 2026

1. SPECIFICATIONS FOR CONTRACT BY HOURLY CHARGE, THE FOLLOWING RATES APPLY

Role	Rate
General Counsel	$450 /hour
Chairman / President / Vice President	$300 - 450 /hour
Advisor	$260 - 325 /hour
Director / Group Manager / Practice Lead	$145 - 300 /hour
Technical Manager	$135 - 255 /hour
Project Manager	$130 - 275 /hour
Assistant Project Manager	$110 - 180 /hour
Landscape Architect	$155 - 215 /hour
Planner	$105 - 200 /hour
Project Engineer	$145 - 185 /hour
GIS Staff	$140 - 175 /hour
CAD Tech	$100 - 145 /hour
Graphics + Visualization	$140 - 150 /hour
Designer / Analyst / Design Tech	$105 - 180 /hour
Intern	$60 - 115 /hour
Administrative Services	$85 - 145 /hour
Construction Administrator / Observer	$120 - 230 /hour
Survey Technician	$105 - 125 /hour
2 Man Survey Crew	$165 - 185 /hour
3 Man Survey Crew	$185 - 210 /hour
UAS LiDAR Crew	$305 /hour
SUE Crew Member	$90 - 130 /hour

Hourly services are recorded and rounded to the nearest 1/4 hour.

2. THE FOLLOWING CHARGES APPLY ON ALL CONTRACTS, FOR COPIES OF PLANS AND SPECIFICATIONS SENT OUT OF THE ENGINEER'S OFFICE (TO CLIENT, CITY REGULATORY AGENCIES, BIDDERS, CONTRACTOR, OTHER CONSULTANTS, ETC.)

Item	Fee	Item	Fee	Item	Fee
Oversize + Color Rep.	$3.60 /each	Specifications	$0.12 /each	Mylar Sepia	$18.00 /each
Paper Reproductions	$2.40 /each	Oversize Mylar Sepia	$24.00 /each	Paper Sepia	$6.00 /each

3. THE FOLLOWING RATES ARE CHARGED IN ADDITION TO THE ABOVE FEES

Item	Fee
Fees Paid for Permits and Applications	Cost Plus 10%
Outside Photocopying, Travel, Overnight Delivery, Postage for Mass Mailings	Cost Plus 10%
Subcontractor Invoices	Cost Plus 12.5%

4. FEES ARE SUBJECT TO ADJUSTMENT AT THE BEGINNING OF EACH CALENDAR YEAR.

5. PROJECTS ARE BILLED ON A MONTHLY BASIS AND INVOICES ARE DUE UPON RECEIPT. INVOICES WHICH HAVE BEEN NOT BEEN PAID WITHIN 30 DAYS ARE PAST DUE AND SUBJECT TO FINANCE CHARGES OF 1.5% PER MONTH.

Client's Initials _____ Date _____