

BURGESS & NIPLE

5085 Reed Road | Columbus, OH 43220 | 614.459.2050

Mr. Jeff Feltz
City of Gahanna
200 South Hamilton Road
Gahanna, OH 43230

Re: 2020 SSES Phase 1

June 17, 2020

Dear Mr. Feltz:

Burgess & Niple, Inc. (B&N) is pleased to submit this Proposal to the City of Gahanna (Owner) for professional services associated with SSES Phase 1 study of the area outlined with the attached 2020 Water In Basement locations exhibits. The Sanitary Sewer SSES project involves evaluating the sanitary sewer system in the areas located where recent Water in Basement's (WIB) have occurred in during two rain events in March and May of 2020. Most of these homes were in this study area were constructed post World War 2. We would anticipate, therefore, that most of the homes in the study area do not have sump pumps since sump pumps were not required until after 1973. There have been reported occurrences of sanitary sewer overflows and Water in Basement (WIB) occurrences during two significant rain events in 2020.

The goal of this project is to determine sources of I/I and locations where flow capacity is limited and determine a plan of improvements to reduce I/I, reduce overflows, and minimize WIB occurrences. Improvements may range from construction of larger sewers to convey the sanitary flow, to inflow/infiltration reduction in both the City-owned and privately-owned parts of the collection system. Historically, private side I/I has not been investigated in communities due to the challenges in working with the public on stormwater improvements on private property. Instead, larger sewers have been built to convey additional flow downstream. But merely conveying the additional flow may no longer be the most cost-effective solution due to recent studies performed by the City of Columbus.

THIS IS AN AGREEMENT effective as of the date of the issued Purchase Order ("Effective Date") between Owner and B&N. **Your issuance of a Purchase Order indicates acceptance of our Proposal** and serves as notice to proceed with this instrument as an Agreement between the Owner and B&N.

Owner's Project, of which B&N's services under this Agreement are a part, is generally identified as follows:

- 2020 SSES Phase 1.

B&N's Services under this Agreement are generally identified as follows:

1.01 Proposed Work Plan / Scope of Services

We propose to perform professional the engineering services to determine the most cost effective solution to mitigate the WIBs.

This project scope includes review of historical data related to maintenance and complaints in conjunction with the I/I studies performed in the 1990's, and flow monitoring of discreet subareas within the overall tributary area for analysis of the sewer systems in those subareas and to ascertain general locations of I/I for further study.

As authorized by the Owner, B&N agrees to provide the necessary services for the above referenced project. These services may include, but may not be limited to, the following:

SSES Phase 1

Task 1.1 – Document Complaint List

Complaint records are used to identify potential problems within a collection system such as WIB occurrences and localized yard flooding. The City maintains a database of complaints by customers. B&N will review the complaint records from the last 5 years (2015-2020) and plot on a map the location of each complaint in the study areas using ESRI ArcEditor. For the purposes of this proposal, it is assumed that organized complaint records not to exceed 100 complaints will be provided to us.

Task 1.2 – Document Maintenance Records

The need for excessive maintenance of sewers can be due to inadequacies within the collection system. The City has identified sewers that require frequent cleaning or root treatment. These maintenance records will be summarized by the City and provided to us. Sewers that require frequent maintenance will be plotted on a map using ESRI ArcEditor. We will also interview City maintenance personnel for information to supplement the written maintenance records.

The City has implemented a manhole inspection and rehabilitation program. The findings and improvements made during these historical programs will be added to the mapping.

Task 1.3 – Develop Flow Projections

B&N will develop flows for each of the sub-tributary areas. The flow projections will include dry weather flow (base wastewater and groundwater infiltration), and rain-dependent inflow and infiltration (RDII). Flow monitoring, rainfall, water consumption, and population data will be used to quantify and characterize base wastewater flow, groundwater infiltration, and the amount of RDII occurring in each sewer tributary area in the study.

Prior to installation of flow monitors, we will meet with City staff and determine the appropriate locations of flow monitors for each of the tributary areas based on the City's existing GIS mapping and the results of the mapping investigations. Based on our preliminary review of the sewer configuration in these tributary areas, a total of 17 flow monitors is included in this proposal. B&N will utilize the City's recently purchased 8 Hach flow meters and tipping bucket rain gauge and will supplement with an additional 9 flow meter rentals from Hach. The flow monitor locations were determined for the following objectives:

- to isolate subareas within each tributary area that may have minimal I/I based on agreed definitions of excessive I/I, and therefore no further SSES investigations are needed in those subareas;
- to quantify I/I amounts in areas of high I/I so that, after improvements are made in those areas, post-improvement flow monitoring can be used to measure the effectiveness of I/I removal efforts; and
- to witness the type of I/I based on the hydrographs, for indications of the sources of I/I. For example, quick spikes in flow during or after a rainfall event suggest inflow sources such as roof drains, yard drains, and storm sewer cross connections, where gradual and long-lasting flow increases suggest infiltration sources such as foundation drains and joint infiltration.

Prior to installation, we will inspect the sites and determine alternate locations if the proposed locations are not feasible for flow monitor activities. B&N will provide a list of the finalized flow metering locations to the City prior to installation. If any of the locations inspected have maintenance issues, we will notify the City.

B&N will utilize each monitor for a sufficient period of time to capture dry weather flows as well as several significant rainfall events. For the purposes of this proposal it is assumed that the monitors will be in service for a period of 4 months. The flow monitors will be programmed to collect data on a 5-minute interval. Data will be collected in the following units: flow-gallons per minute, level-inches, and velocity-feet per second.

Data will be downloaded weekly and reviewed by the team to verify quality data is being obtained. To maximize the potential for observing wet-weather events, the flow monitoring should be performed during the seasonally wet spring months as well as a few dry months to obtain baseline data, and our schedule reflects this time period.

B&N will utilize the City and rental HACH flow monitors and associated hardware and will return the City owned equipment and rental equipment upon completion of the flow monitoring activities.

B&N will also utilize the City's tipping bucket rain gauge for the duration of the flow monitoring period to correlate wet weather flows and rainfall frequency. Rainfall data will be retrieved weekly in conjunction with downloads from the flow meters. The City of Columbus DIAD rain gauge located at Mifflin Cemetery will be utilized as well to check the spatial distribution of the rainfall across the study area.

It is assumed that traffic maintenance for the flow monitoring activities will be limited to the use of the survey vehicle and traffic cones for traffic control.

Task 1.4 – Capacity Evaluation

B&N will develop Civil 3d model of the collection system and use the SSA module to perform capacity evaluation, the output from the model will be spreadsheets of the collection system in each of the tributary areas with existing sewer configurations and capacities, dry and wet weather flow data, and identification of excess/deficient capacities based on predetermined rainfall events. In this task, the model and spreadsheets will be used to understand the existing system and characterize the rain-dependent I/I responses for each sewer subdistrict. Historical rainfall events can be loaded into the model and run once the model is calibrated. We anticipate using 3 historical events for the evaluation; Columbus 10 year – 6 hour storm, March 2020 and May 2020.

Task 1.5 – Develop a Public Education Program

An important sub-task in identifying sources of I/I on private property is communicating with residents of the testing area. We will develop and distribute a notification letter with project area map and questionnaire to gain an understanding of surface water and basement flooding problems in the project area and obtain information about individual residential problems. It also will serve as a public relations tool to reach out to residents in the area scheduled to be tested.

Distributing questionnaires to residents at the beginning of a project is a useful way to educate the public about the project, making them aware of impending work in their neighborhood. B&N will receive questionnaires, organize this information into a useful Access database, and compile the results of the resident questionnaires for analysis and inclusion in the final report. These responses can be used to evaluate WIB patterns and frequency and potential storm water inflow problems prior to the actual field testing in the area.

At the City's discretion we can utilize an electronic questionnaire for this study and have linked to the City's website. However, a hard copy of the questionnaire will also be mailed to all affected residents and property owners to maximum the response rate. For purposes of this proposal we have anticipated 3,000 parcels to be included in this mailing

Task 1.6 – Attend Progress Meetings

B&N will coordinate monthly progress meetings as needed to discuss progress made on the project, status of the project schedule, items that may affect the schedule or budget, and other items of concern to B&N and the City. In addition to the progress meetings, we will prepare one presentation of the study for City Council.

Task 1.7 – Prepare Draft Interim Flow Metering and Findings Report

A draft report will document the entire process involved in preparing the Sanitary Sewer SSES Draft Report. We will meet with City staff to discuss the draft report, incorporate the City's comments, and submit 4 copies of the final interim report. The report will include:

- A. Sanitary sewer base map.
- B. Summary of existing data, including complaint records and maintenance records.
- C. Results of the physical surveys, including sewer surveys, flow monitoring, and questionnaire results.
- D. Evaluation of the flow monitoring results, including estimated dry- and wet-weather flow data, comparisons of expected and excessive I/I, and recommendations for further field investigations in areas of excessive I/I.
- E. Sewer system spreadsheets, with existing dry and wet-weather flows, projected redevelopment flows, and sewer capacities.
- F. Estimated costs of recommended additional field investigations.

Owner and B&N further agree as follows:

2.01 Basic Agreement and Period of Service

- A. B&N shall complete its services within 8 months of the notice to proceed.
- B. If authorized by Owner, or if required because of changes in the Project, B&N shall furnish services in addition to those set forth above. Owner shall pay B&N for its services as set forth in Sections 3 below.

3.01 Basis of Payment-Hourly Rates Plus Reimbursable Expenses

- A. Using the procedures set forth in the Scope of Work outlined in Section 1.01 and procedures set forth below, Owner shall pay B&N as follows:
 1. An amount equal to the cumulative hours charged to the Project by each class of B&N's employees times standard hourly rates for each applicable billing class for all services performed on the Project, plus reimbursable expenses and B&N's consultants' charges, if any.
 2. B&N's Standard Hourly Rates are attached as Appendix 1.

3. B&N's Reimbursable Expenses are attached as Appendix 2.
 4. The total compensation for services and reimbursable expenses is estimated to be **\$300,996.00**. B&N will not exceed this fee without prior written authorization from Owner.
- B. The fee proposal for the scope of work is an estimate, therefore B&N will notify Owner at approximately 80 percent completion and will wait for written authorization to proceed before exceeding initial authorized payment amount. Payment for services will also follow Section 3.01. Owner waives any and all claims against B&N for any suspension of services due to delays waiting for additional authorization.

3.02 Invoicing

- A. B&N shall prepare invoices in accordance with its standard invoicing practices and submit the invoices to Owner on a monthly basis. Invoices are due and payable within 30 days of receipt. If Owner fails to make any payment due B&N for services and expenses within 30 days after receipt of B&N's invoice, then the amounts due B&N will be increased at the rate of 1.5 percent per month from said 30th day. In addition, B&N may, after giving seven days written notice to Owner, suspend services under this Agreement until B&N has been paid in full all amounts due for services, expenses, and other related charges. Owner waives any and all claims against B&N for any such suspension. Payments will be credited first to interest and then to principal.

If the account remains delinquent for more than 30 days, B&N shall have the right to cease all services on the Project without notice. If the account is delinquent, and the delinquent account is placed in the hands of an attorney or collection agency for collection, the Owner agrees to waive the benefit of all exemptions as to the delinquent account and further agrees to pay all expenses incurred in collecting the same, including, without limitation, reasonable attorney fees in the amount of one-third of the total principal amount awarded or the actual amount of attorney's fees incurred, whichever amount is greater, collection agency fees, court costs, and all other costs incurred by B&N.

3.03 Tax Clause

If after the Effective Date any governmental entity takes a legislative action that imposes taxes, fees, or charges on B&N's services or compensation under this Agreement, then B&N may invoice such new taxes, fees, or charges as a Reimbursable Expense to which a factor of 1.0 shall be applied. Owner shall reimburse B&N for the cost of such invoiced new taxes, fees, and charges; such reimbursement shall be in addition to the compensation to which B&N is entitled.

3.04 Termination

- A. The obligation to continue performance under this Agreement may be terminated:
1. For cause,
 - a. By either party upon 30 days written notice in the event of substantial failure by the other party to perform in accordance with the Agreement's terms through no fault of the terminating party. Failure to pay B&N for its services is a substantial failure to perform and a basis for termination.
 - b. By B&N:

- 1) Upon seven days written notice if owner demands that B&N furnish or perform services contrary to B&N's responsibilities as a licensed professional; or
- 2) Upon seven days written notice if B&N's services for the Project are delayed for more than 90 days for reasons beyond B&N's control.

B&N shall have no liability to Owner on account of a termination by B&N under Section 4.01.A.1.b.

- c. Notwithstanding the foregoing, this Agreement will not terminate as a result of a substantial failure under Section 4.01.A.1.a if the party receiving such notice begins, within seven days of receipt of such notice, to correct its substantial failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of notice; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such 30 day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, 60 days after the date of receipt of the notice.

2. For convenience, by Owner effective upon B&N's receipt of written notice from Owner.

- B. The terminating party under Section 4.01.A may set the effective date of termination at a time up to 30 days later than otherwise provided to allow B&N to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Project materials in orderly files.
- C. In the event of any termination under Section 4.01, B&N will be entitled to invoice Owner and to receive full payment for all services performed or furnished in accordance with this Agreement and all reimbursable expenses incurred through the effective date of termination.

4.01 Successors, Assigns, and Beneficiaries

- A. Owner and B&N are hereby bound and the successors, executors, administrators, and legal representatives of Owner and B&N (and to the extent permitted by Section 5.01.B the assigns of Owner and B&N) are hereby bound to the other party to this Agreement and to the successors, executors, administrators, and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements, and obligations of this Agreement.
- B. Neither Owner nor B&N may assign, sublet, or transfer any rights under or interest (including, but without limitation, moneys that are due or may become due) in this Agreement without the written consent of the other, except to the extent that any assignment, subletting, or transfer is mandated or restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.
- C. Unless expressly provided otherwise, nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by Owner or B&N to any contractor, subcontractor, supplier, other individual or entity, or to any surety for or employee of any of them. All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of Owner and B&N and not for the benefit of any other party.

5.01 General Considerations

- A. The standard of care for all professional engineering and related services performed or furnished by B&N under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. B&N makes no warranties, express or implied, under this Agreement or otherwise, in connection with B&N's services. Subject to the foregoing standard of care, B&N and its consultants may use or rely upon design elements and information ordinarily or customarily furnished by others, including, but not limited to, specialty contractors, manufacturers, suppliers, and the publishers of technical standards.
- B. B&N shall not at any time supervise, direct, control, or have authority over any contractor's work, nor shall B&N have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, or the safety precautions and programs incident thereto, for security or safety at the Project site, nor for any failure of a contractor to comply with laws and regulations applicable to such contractor's furnishing and performing of its work.
- C. This Agreement is to be governed by the laws of the State of Ohio.
- D. B&N neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform its work in accordance with the contract between Owner and such contractor. B&N is not responsible for variations between actual construction bids or costs and B&N's opinions or estimates regarding construction costs.
- E. B&N shall not be responsible for the acts or omissions of any contractor, subcontractor, or supplier, or of any of their agents or employees or of any other persons (except B&N's own employees) at the Project site or otherwise furnishing or performing any construction work; or for any decision made regarding the construction contract requirements, or any application, interpretation, or clarification of the construction contract other than those made by B&N.
- F. The general conditions for any construction contract documents prepared hereunder are to be the "Standard General Conditions of the Construction Contract" as prepared by B&N's Joint Contract Documents Committee (EJCDC C-700, 2013 Edition) unless the parties agree otherwise.
- G. All documents prepared or furnished by B&N are instruments of service, and B&N retains an ownership and property interest (including the copyright and the right of reuse) in such documents, whether or not the Project is completed. Unless subject to Ohio's Public Records Act, Owner shall have a limited license to use the documents on the Project, extensions of the Project, and for related uses of the Owner, subject to receipt by B&N of full payment for all services relating to preparation of the documents and subject to the following limitations: (1) Owner acknowledges that such documents are not intended or represented to be suitable for use on the Project unless completed by B&N, or for use or reuse by Owner or others on extensions of the Project, on any other project, or for any other use or purpose, without written verification or adaptation by B&N; (2) any such use or reuse, or any modification of the documents, without written verification, completion, or adaptation by B&N, as appropriate for the specific purpose intended, will be at Owner's sole risk and without liability or legal exposure to B&N or to its officers, directors, members, partners, agents, employees, and consultants.
- H. To the fullest extent permitted by law, Owner and B&N (1) waive against each other, and the other's employees, officers, directors, agents, insurers, partners, and consultants, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in

any way related to the Project, and (2) agree that B&N's total liability to Owner under this Agreement shall be limited to \$50,000 or the total amount of compensation received by B&N, whichever is greater.

- I. Insurance: The insurance maintained by B&N is summarized below:
 - 1. B&N shall comply with all Workers' Compensation laws and, if required, provide certificates of coverage in connection with this Agreement.
 - 2. During the term of this Agreement, B&N will maintain in full force and effect liability insurance coverage, and will provide to the Owner certificates confirming such coverage, upon request.
- J. Indemnification by B&N: To the fullest extent permitted by Laws and Regulations, B&N shall indemnify and hold harmless Owner, and Owner's officers, directors, members, partners, agents, consultants, and employees, from losses, damages, and judgments (including reasonable consultants' and attorneys' fees and expenses) arising from third-party claims or actions relating to the Project, provided that any such claim, action, loss, damages, or judgment is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of B&N or B&N's officers, directors, members, partners, agents, employees, or Consultants.
- K. Owner and B&N agree to negotiate each dispute between them in good faith during the 30 days after notice of dispute. If negotiations are unsuccessful in resolving the dispute, then the dispute shall be mediated. If mediation is unsuccessful, then the parties may exercise their rights at law.

6.01 Total Agreement

- A. This Agreement (including any expressly incorporated attachments), constitutes the entire agreement between Owner and B&N and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument.

B&N appreciates the opportunity to submit this Proposal and look forward to working with you on this project. If you are in accord with this Proposal, please issue a Purchase Order which acknowledges the contract conditions stated herein, and that the work will be done in accordance with this Proposal.

BURGESS & NIPLE, INC.

By: _____

Title: Vice President

Date Signed: _____

Firm's Certificate No: 01762

State of: Ohio

Project Manager: _____

John W. Swartzbaugh, PE

Address for giving notices:

5085 Reed Road

Columbus, OH 43220

JWS:cmc
Attachments

APPENDIX 1

**BURGESS & NIPLE, INC.
2020 HOURLY RATES**

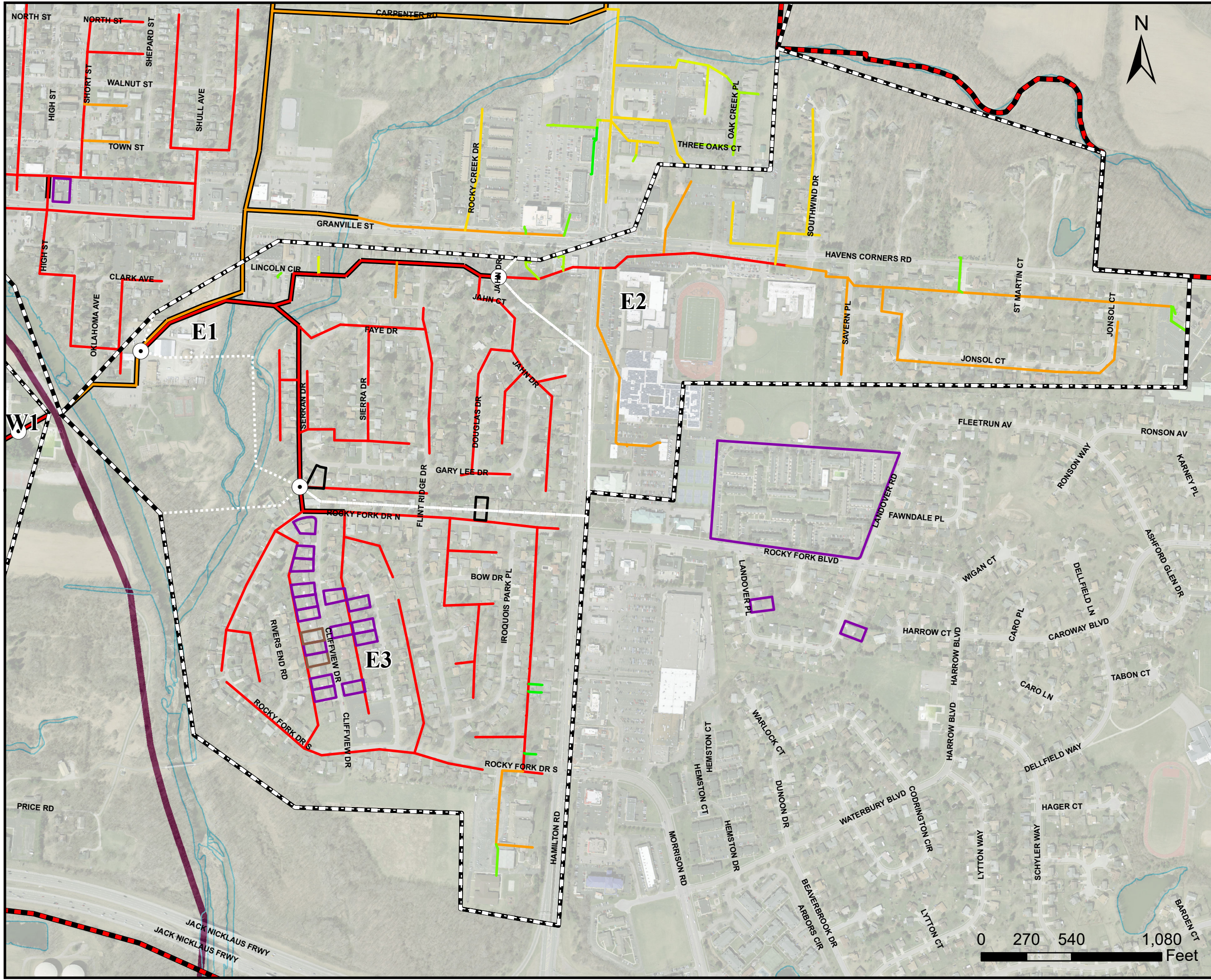
	<u>2020 Min</u>	<u>2020 Max</u>
Principals/Associates	\$220	\$370
Project Director	\$175	\$315
Staff Consultant	\$170	\$365
Senior Staff		
Architect	\$175	\$260
Chemical Engineer	\$175	\$260
Civil Engineer	\$175	\$260
Electrical Engineer	\$175	\$300
Environmental Engineer	\$175	\$260
Environmental Scientist	\$145	\$230
Geotechnical Engineer	\$175	\$260
Hydrogeologist	\$135	\$320
Geologist	\$125	\$230
Instrumentation Engineer	\$175	\$300
Landscape Architect	\$130	\$180
Mechanical Engineer	\$175	\$280
Sanitary Engineer	\$175	\$280
Structural Engineer	\$175	\$260
Staff Categories		
Administrative Aide	\$85	\$135
Architect	\$95	\$200
CADD Operator	\$85	\$135
Chemical Engineer	\$105	\$200
Civil Engineer	\$95	\$200
Clerical	\$85	\$135
Designer	\$85	\$165
Electrical Engineer	\$115	\$210
Environmental Engineer	\$100	\$200
Engineering Aide	\$85	\$115
Environmental Scientist	\$85	\$200
Environmental Technician	\$85	\$135
Geologist	\$80	\$185
Geotechnical Engineer	\$95	\$240
Hydrogeologist	\$95	\$200
Instrumentation Engineer	\$105	\$210
Mechanical Engineer	\$105	\$210
Project Representative	\$95	\$175
Sanitary Engineer	\$105	\$210
Structural Engineer	\$95	\$200
Technician	\$85	\$135

APPENDIX 2

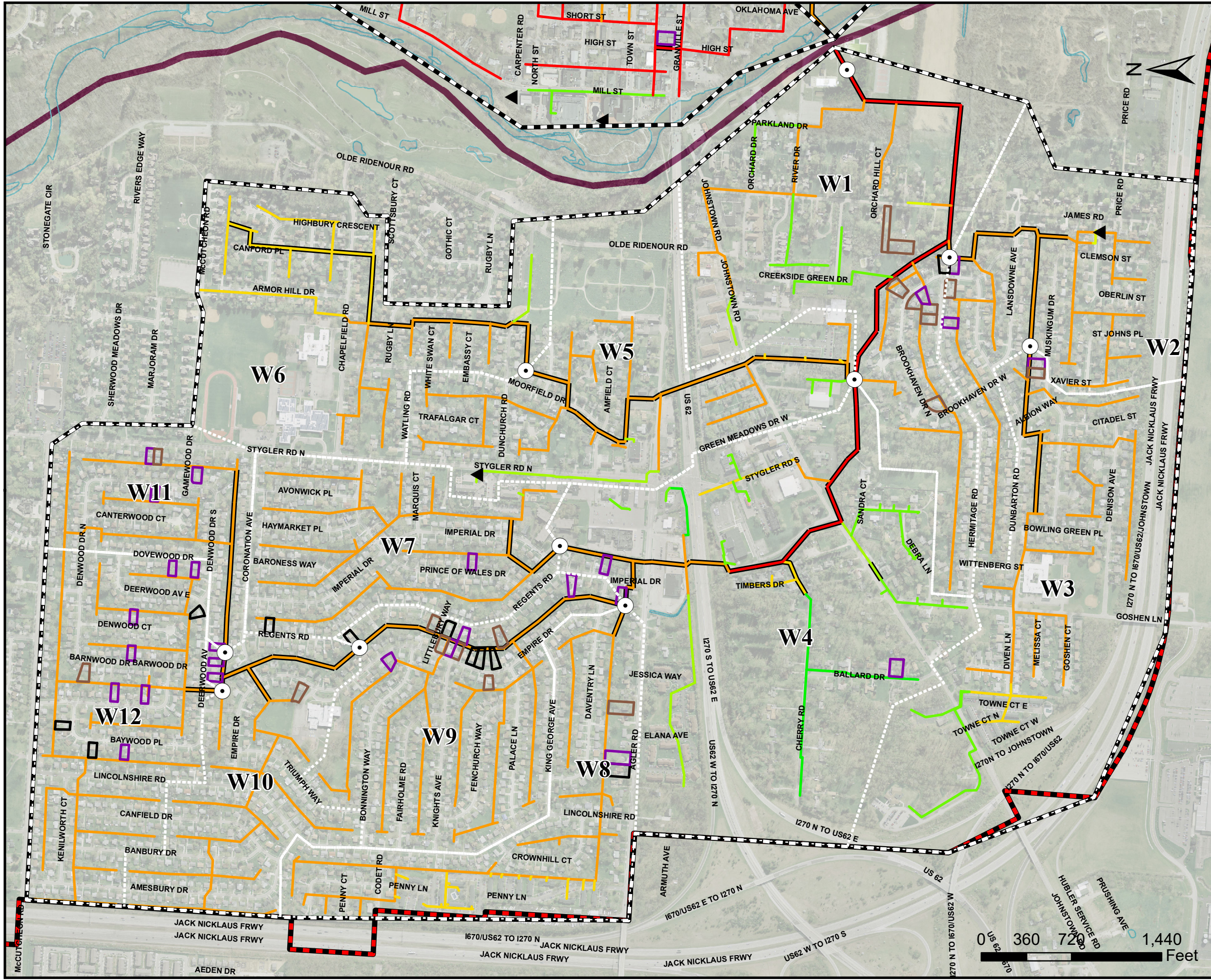
**BURGESS & NIPLE, INC.
2020 HOURLY RATES**

- | | |
|--|------------------------------------|
| 1. Local Travel (auto) | 57½¢ per mile or approved IRS rate |
| 2. Other Owner-authorized travel including meals and lodging | At cost |
| 3. Technology charges will be billed as follows: | \$4.75 per labor hour |
| 4. Owner-authorized subcontracted work | Cost plus 10% markup |
| 5. Other reimbursable expenses | At cost |

SSES Phase 1-Hours and Cost Summary				
City of Gahanna, Ohio				
Project Title: Sanitary SewerSSES Phase 1				
Phase 1		Total Estimated Hours	Subconsultant Fee or Equipment Rental	Estimated Total Fee
Task 1.1	Document Complaint List	28		\$4,026
Task 1.2	Document Maintenance Records	50		\$7,235
Task 1.3	Develop Flow Projections (17 Flow Meters, 1 Rain Gauge)	685	\$32,450	\$118,996
Task 1.4	Capacity Evaluation	468		\$71,016
Task 1.5	Develop Public Education Program	168	\$3,000	\$22,426
Task 1.6	Attend Progress Meetings	76		\$14,641
Task 1.7	Prepare Final Report	406		\$62,657
Subtotal of Task 1 Scope Items		1881	\$35,450	\$300,996



	Gahanna Corp Line		3-18-20 WIB Locations		Proposed FM Locations		1981 - 1990
	SSES Boundary		5-18-20 WIB Locations		COC Interceptor		1939 - 1960
	Flow Meter Boundaries		3-18 and 5-18 WIB Locations		10"-21" Mainline		1961 - 1970
							1971 - 1980
							1991 - 2000
							2001 - 2010
							2011 - 2020



	Gahanna Corp Line		3-18-20 WIB Locations		Proposed FM Locations		1981 - 1990
	SSES Boundary		5-18-20 WIB Locations		COC Interceptor		1939 - 1960
	Flow Meter Boundaries		3-18 and 5-18 WIB Locations		10"-21" Mainline		1961 - 1970
							2001 - 2010
							2011 - 2020