

March 19, 2015
File No. 9301110

Mr. Paul Holzen, Director of Engineering
CITY OF FRANKLIN
Department of Engineering
109 3rd Avenue South
Franklin, Tennessee 37064

RE: PARKVIEW DRAINAGE IMPROVEMENTS STUDY

Dear Mr. Holzen:

Barge Waggoner Sumner & Cannon, Inc. (BWSC) encloses the details of our scope of work (Attachment A) for the project named above.

This proposal was prepared based on my understanding of the project description. If we have not fully addressed your project requirements, or if you have any other questions regarding the proposal, please advise me immediately by calling 615-252-4232.

BWSC can also provide additional services not included in this scope and can amend the document as necessary for this purpose.

BWSC will work with you to determine the project schedule once you are ready to start work.

It is my understanding that you will forward an agreement for us to execute, and my assumption that this scope of work will be incorporated in the agreement.

We appreciate the opportunity to work with the City and look forward to a successful project.

Sincerely,



Charlie Smith, PE
Nashville Civil Group Manager

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ATTACHMENT A

**CITY OF FRANKLIN
PARKVIEW DRAINAGE IMPROVEMENTS STUDY
FEBRUARY 23, 2015**

The scope of work is presented in the following elements.

- I. Project Description
- II. Scope of Services
- III. Assumptions
- IV. Additional Services
- V. Time of Performance
- VI. Owner's Responsibilities
- VII. Deliverables
- VIII. Compensation

I. Project Description

The City of Franklin desires to reevaluate the Parkview Drainage Improvements Study completed in 1995. The purpose of conducting the study is to investigate the hydrology and hydraulics involved with the installation of a storm sewer system to serve the Parkview area and alleviate flooding in the area. The project consists of preparing a report for the approximate 50-acre area that documents the assessment of existing conditions and options of piping, along with detention for the area that can achieve project objectives. The report will also examine the probable cost of alternatives and evaluate construction phasing.

II. Scope of Services

Barge Waggoner Sumner & Cannon, Inc., proposes the following Scope of Services.

- A. Review of existing data. This review will include the 1995 report and any additional calculations available, the City's GIS data, City design standards and regulations, and any public works records for flooding reports or complaints.
- B. Conduct site visit. After a review of existing data, BWSC will make a site visit to the area and meet with City staff. The purpose of the meeting would be to refine objectives for the project, identify project constraints, and discuss potential solutions to be evaluated.

- C. Conduct limited site survey. Data collected will include inverts and cross-culvert pipe sizes at a few key locations to assist in developing routing alternatives. This work will not constitute a complete design survey. A design-level survey will need to be conducted after this study is completed in order to implement study recommendations.
- D. Perform hydrology study. Based upon current land uses and soil data, BWSC will prepare a hydrology study for the area to produce flooding hydrographs and/or peak flow rates for storm events to be evaluated. Based on the fact that the area under study is existing development (as opposed to new development); we propose to study the 2-, 10-, and 25-year design storm events. An exception to this would be any proposed detention analysis, which would also include the 50- and 100-year design-storm events.
- E. Develop hydraulic model. After flood flows have been developed, BWSC will prepare a hydraulic model for the system that will be used to examine potential detention basin options, as well as options and sizing for routing of stormwater flow to the Harpeth River.
- F. Prepare summary report. BWSC will prepare a summary report with findings from the hydrology and hydraulic study, along with recommended solutions. The report will also contain opinions of probable cost for the options studied.
- G. After the report has been prepared and reviewed by the City, BWSC will meet with the City to discuss phasing constraints for the preferred alternative.
- H. BWSC will develop a phase plan for the stormwater elements identified in the report, in conjunction with other improvements being constructed in the area by the City. Plan to include:
 - 1. Proposed stormwater improvements
 - 2. Proposed coordinated water and sanitary system improvements
 - 3. Proposed coordinated roadway and sidewalk improvements
 - 4. Other utility relocations
 - 5. Impacts to Right-of Way
 - 6. Impacts to traffic during construction
 - 7. Impacts to/coordination with other potential improvements along Harpeth River, including:
 - a. Water quality
 - b. Bikeway/greenway/riverwalk
 - c. Recreational boat use of the river
 - d. Other development in the vicinity of the proposed discharge location
 - 8. Identification of permitting issues and coordination required for proposed improvements
 - 9. Total cost of improvements

- I. BWSC will meet City staff and present a draft final report to the City.
- J. Refine plan per staff comments
- K. Deliver final study and phasing plan to the City.

III. Assumptions

BWSC will provide the above-noted services based upon a given set of assumptions, as follows.

- A. City of Franklin GIS data and public works records will be available for use in the study.
- B. No specific software is required by the City.
- C. The City will contact homeowners if necessary.
- D. Williamson County Soil Maps will be used for documenting soil types.
- E. BWSC's fee is based upon studying two alternatives for new storm sewer alignment and two alternatives that are a combination of new storm sewer alignment and the use of existing storm sewer capacity.

IV. Additional Services

- A. BWSC is available to provide additional services as requested by client as needed.
- B. Additional services can be added to this Scope of Services by amendment and equitable adjustment in fee, based on BWSC's hourly rate schedule provided as Exhibit A.

V. Time of Performance

BWSC is prepared to begin work shortly after receipt of a signed professional services agreement or written authorization to proceed. We anticipate completion of a draft report within 60 days of authorization to proceed. A final report will be delivered within 30 days of meeting with the City to receive comments on the draft.

VI. Owner’s Responsibilities

BWSC strives to work closely with our clients. In order for the project team to function efficiently, certain information is needed to be provided by the Owner and other interested stakeholders in a timely manner. These items and responsibilities are noted below.

- A. The City staff will be available to answer questions and provide necessary collaboration to facilitate identification of project constraints and objectives.

VII. Deliverables

The following is a list of probable deliverables that will be produced as part of this effort that will be included in a summary report for the Parkview Area Drainage Improvements.

- A. Hydrologic calculations for the basin
- B. Drawing showing the options evaluated as part of the study
- C. Hydraulic calculations package
- D. Drawing showing the phasing plan for the preferred alternative
- E. Preliminary opinions of probable cost for the plan phases

VIII. Compensation

The compensation to be paid to BWSC for providing the requested services shall be as follows.

Method of Compensation	Hourly not to exceed
Total Fee	\$ 48,750

EXHIBIT A

**SCHEDULE OF
STANDARD CHARGES**

HOURLY-RATE BASIS

Hourly Rates:

Principal Engineer, Planner, or Architect	\$170 to	\$280
Professional Engineer, Planner, Architect, Landscape Architect, or Land Surveyor.....	100 to	180
Graduate Engineer, Planner, or Architect.....	70 to	130
Designer or Technician	60 to	120
Drafter, Administrative Assistant, etc.....	50 to	100
Construction Representative	50 to	100
Surveyor	30 to	80

Outside services contracted for a specific project, such as professional and technical consultants, laboratory testing, reproduction, photography, etc., will be invoiced at the amount of the subcontractor's statement plus 15 percent.

Other expenses which are properly chargeable to the work will be invoiced as follows:

- a. Travel by company or private vehicle at the IRS approved standard mileage rate.
- b. In-house printing, reproduction, and photography charges at commercial rates.
- c. Travel and living expenses for all personnel when required to be away from headquarters in connection with the work at cost.

Invoices will be issued on a monthly basis.

NOTE: The average three-member survey crew rate ranges from \$140 to \$200 per hour, depending upon the mix of personnel used.

Effective October 2011