



HISTORIC  
FRANKLIN  
TENNESSEE

ITEM #3  
CIC  
10-11-12

## MEMORANDUM

---

September 27, 2012

**TO:** Board of Mayor and Aldermen

**FROM:** Eric Stuckey, City Administrator  
David Parker, City Engineer/CIP Executive  
Paul P. Holzen, Director of Engineering  
Crystal Piper, Stormwater Coordinator

**SUBJECT:** **Consideration of the Professional Services Agreement (COF Contract 2012-0157) with CDM Smith for Hatcher Springs Watershed Stormwater Master Planning Project in the amount of \$110,000**

### Purpose

The purpose of this memo is to provide the Board of Mayor and Aldermen (BOMA) with information to consider a Professional Services Agreement (PSA) with CDM Smith to develop a Stormwater Master Plan for the Hatcher Springs watershed.

### Background

The City developed Stormwater Master Plans in 2001 and 2002, for the major streams contained within the City Limits that drain to the Harpeth River. During that time, the Hatcher Springs watershed had not been fully annexed into the City Limits. The total watershed area of Hatcher Springs is approximately 5.5 square miles and includes Franklin Green, Westhaven, and Willow Springs subdivisions. The Stormwater Master Plan will include hydrologic and hydraulic modeling of the stormwater system to identify potential flood prone areas and erosive channel velocities. Water quality modeling will be performed to identify sources of pollution and annual pollutant loads throughout the watershed. The information gathered will help direct the focus of the City's Stormwater Management Program for the Hatcher Springs Watershed.

### Financial Impact

The PSA is for an amount not to exceed \$110,000.00 paid for out of the Stormwater FY 2013 budget line item 82560 Consultant Services.

### Recommendation

Staff recommends approval of Contract 2012-0157 with CDM Smith to develop a Watershed Master Plan for the Hatcher Springs watershed in an amount not to exceed \$110,000.00.

**Contract 2012-0157**  
**Proposed Scope of Services for Watershed Master Planning**  
**Hatcher Springs**  
**Franklin, TN**

**Scope of Services:**

CDM Smith will perform a watershed master plan of the Hatcher Springs (and adjacent Westhaven neighborhood) watershed. The total watershed area is approximate 5.5 square miles (4.7 for Hatcher, 0.8 for Westhaven). The evaluation will include hydrologic and hydraulic modeling of the stormwater system to identify potential flood prone areas and erosive channel velocities. Water quality modeling will be performed to identify potential sources of pollution and annual pollutant loads throughout the watershed. Finally, CDM Smith will develop recommendations based on the work performed, all of which will be documented in a final report. The scope of work for the project is provided herein.

**Task 1 Project Coordination and Meetings**

CDM Smith has included a number of meetings with City staff and a presentation to the Board of Mayor and Aldermen (BMA) to be used during the project. The purpose of the meetings with staff is for CDM Smith to collect information pertaining to the project as necessary and to provide project status updates for the City. Secondly, CDM Smith will prepare a presentation and attend one BMA meeting to present the final recommendations for the project.

The following is a list of intended meetings:

- **Kickoff Meeting (1)** – intended to establish project lines of communication and to discuss the elements of the scope of work. As a deliverable from the meeting, CDM Smith will develop a project schedule defining specific milestones. The kickoff meeting will also include a half-day windshield survey of the Hatcher Springs watershed with appropriate staff to locate and identify issues of concern for the City;
- **Progress Meetings (2)** – two meetings to provide staff with project updates, to discuss project strategy, to provide interim project results, and to plan/review deliverables;
- **BMA Meeting (1)** - attendance at one BMA meeting to present final recommendations of study.

**Task 2 Data/Information Assessment****Task 2.1 *Compilation and Review of Available Data***

CDM Smith will compile and review existing GIS and pertinent information to support the subsequent tasks in the development of a watershed master plan. Anticipated information to be reviewed and considered includes, but is not limited to:

- GIS base mapping data (e.g. aerials, parcels, land use, contours, LiDAR, etc.)
- City stream assessment information
- Stormwater and other utility mapping
- Stormwater BMP locations
- Major site development plans
- Local rainfall data
- Federal Emergency Management Agency (FEMA) floodplain information
- US Geological Survey (USGS) / Tennessee Department of Environment & Conservation (TDEC) gage and monitoring information

- Historic flooding information (High water marks, storm water requests, flood damage claims information)
- Proposed project and development plans
- Previous studies / reports (if any)

### **Task 2.2 Watershed Characterization**

A general characterization of the watershed is necessary in the development of a storm water plan as it provides a baseline, context, and focus for analysis and evaluation performed in subsequent tasks as well as helps establish a cause and effect relationship for the findings from those tasks. CDM Smith will perform a characterization of the Hatcher Springs watershed (within the City limits and/or UGB as appropriate) using the data collected in previous tasks. The characterization will include/identify the following elements:

- Physical features/characteristics (e.g. topography, drainage patterns, predominant soils and geologic base, etc.)
- Watershed development trends and impacts (e.g. land use/land cover, population, land disturbance, etc.)
- Documented existing watershed conditions (e.g. impaired water bodies, Natural Heritage Program (NHP) protected animal and plant species, etc.)
- Watershed stressors and impact trends

The watershed characterization will be an “office-based” effort (i.e. no or limited field work is anticipated for this specific tasks). The watershed characterization will be used to target field work and to provide indicators for potential flooding and water quality impacts. The findings of this effort will be documented and included in the Master Plan report in Task 8.

### **Task 3 Field Collection/Assessment**

Based on the results of the data collection performed in the previous task, CDM Smith will collect field inventory and survey as described below to support master plan development efforts. The assumptions used to derive the scope of work are noted below:

#### **Task 3.1 Field Inventory and Survey**

CDM Smith will collect open and closed drainage inventory features within the Hatcher Springs watershed to the level identified in the field needs assessment. Anticipated collection efforts include:

- Survey of all open-system roadway/bridge/dam crossings (upstream face, downstream face, structure, and top of road) throughout Hatcher Springs and tributaries. Survey of approximately 15 roadway/bridge/dam surveys along tributaries are anticipated for this scope. 13 additional crossings are required for Westhaven. *(NOTE: accurate as-built or site plan information may reduce these numbers as many of the crossings are within neighborhoods).*
- Survey of open channel cross sections (channel plus 20 feet +/- from top of bank on overbanks) along streams draining greater than 100 acres. Cross sections will be surveyed approximately every 1,000 feet on average. For scoping, 40 cross section surveys are anticipated for Hatcher Springs. An additional 10 cross sections are required for Westhaven.
- Field survey of closed pipe systems (e.g. inverts, pipe sizes and materials, rim elevations, etc.) is not anticipated for this scope of work. It has been assumed that information regarding closed pipe systems can be derived from site development plans provided by the City.

Survey of roadway/bridge crossings will be conducted to survey-grade accuracy (tied to State Plane coordinates) by a licensed surveyor. Open channel cross section surveys will be performed using mapping-grade GPS units, at a minimum. Vertical measurements for mapping-grade cross sections will be referenced to available LiDAR or DEM data to obtain channel elevations.

#### **Task 4 Hydrologic Analysis**

CDM Smith will develop a hydrologic model of the Hatcher Springs and Westhaven watersheds. The modeling platform will be selected during the Project Kickoff meeting. Modeling will be performed as per the following subtasks:

##### ***Task 4.1 Model Parameter Development***

CDM Smith will subdivide the Hatcher Springs Watershed within the City limits into subbasins draining an average of approximately 100-acres. Model parameters will be developed from existing GIS data, input from staff, and from observations made during the windshield survey. Land use will be developed from a combination of zoning data and City planning information. For future land use, all scenarios will be developed and verified with City planning staff for accuracy. CDM Smith will use the Soil Conservation Service (SCS) Curve Number (CN) method to generate runoff parameters. Rainfall amounts for local design storm events will be selected from the City's stormwater design manual, recent NOAA data or other recommended source if directed by City staff. Times of concentration and/or time to peak will be developed from existing GIS terrain data (DEM or other equivalent). Channel reach lengths and dimensions will be estimated from available GIS and survey information.

##### ***Task 4.2 Hydrologic Model Development/Execution***

CDM Smith will simulate a total of five design storm events of appropriate duration: 1-inch, 2-, 10-, 25-, and 100-year. These design storms are necessary to evaluate the conditions and improvements against multiple industry standards, including water quality treatment, stream channel protection, the City's post construction runoff control standard, overbank flood protection and extreme flood protection. The models will be developed to a degree of detail that allows for the evaluation of various stormwater management scenarios. While specific site level BMPs will not be represented in the model, CDM Smith will represent these various management scenarios through modifications of land use, CN and sub-basin travel times to simulate the effects of site level controls.

Each of the five design storms will be simulated under existing and future/build-out land use conditions. Existing conditions will be established through a review of available GIS data, aerial photography, planimetric features, and data collected through the field investigation process. Conditions for the future build-out conditions will be determined through a review of the City's planning documents and through discussions with City Engineering and Planning staff.

##### ***Task 4.3 Model Validation***

CDM Smith will conduct a model validation analysis for the existing conditions model using local rainfall data, regression equations, drainage complaints, and similar watershed information (note: no USGS gage in watershed) for one representative storm event.

#### **Task 5 Hydraulic Analysis**

CDM Smith will develop a hydraulic model of the Hatcher Springs and Westhaven watersheds using a mutually agreed upon modeling platform, as determined during the Kickoff Meeting. Modeling will be performed per the following subtasks:

##### ***Task 5.1 Model Parameter Development***

CDM Smith will develop a hydraulic model of the main stem of Hatcher Springs and its tributaries. All perennial streams that are tributary to the main stem will be modeled to the point where the drainage area is approximately 100-acres.

Stream channel cross sections will be developed based on survey data (i.e. to obtain in-stream channel configuration) and existing LiDAR/DEM data (i.e. to represent overbank/floodplain areas). Data collection and survey for in-stream structures such as road crossings, culverts, etc. will be obtained from the survey task above. Channel bed and bank conditions will also be captured from in-stream assessment data provided by the City in order to estimate Manning's roughness coefficients for use in the model.

Rating curves will be developed for road crossings based on dimensions derived from field survey data, where appropriate. The ratings curves will be developed using a desktop spreadsheet model.

**Task 5.2                      *Hydraulic Model Development/Execution***

CDM Smith will simulate a total of five design storm events, as noted above for the Hydrologic model. The model will include all areas within the City limits draining approximately 100-acres or greater. In addition, all storm sewer systems greater than or equal to 24-inches in diameter will be represented in the model (assuming data on the storm sewer systems is available from site development plans provided by the City).

Each of the five design storms will be simulated under existing and future/build-out land use conditions. 100-year flood profiles, water surface elevations and flood boundary limits will be developed for each land use scenario.

**Task 5.3                      *Model Validation***

CDM Smith will conduct a model validation analysis on the existing condition model using local rainfall data, regression equations, drainage complaints, and similar watershed information (note: no USGS gage in watershed). Also, CDM Smith will validate the model against anecdotal evidence and high water marks (as provided by the City) identified during one recent rain event.

**Task 5.4                      *Floodplain Mapping***

CDM Smith will generate 100-year floodplain maps for each of the land use scenarios using GIS. Flood profiles and boundaries from the hydraulic models will be represented on the most recent GIS terrain data (likely DEM) and/or the most recent City/County aerial photography. CDM Smith will provide two E-size (36" x 48"), color hard-copy maps (approximate scale is 1" = 1,000 ft) showing a comparison of existing to the build-out scenario during the review phase and two, E-size color hard-copy maps as a final deliverable for this task. CDM Smith will also provide the maps electronically and will provide the corresponding GIS floodplain files for the City's records.

**Task 5.5                      *Problem Area Identification***

Once the models have been validated, CDM Smith will summarize and interpret the results of the modeling. Results from the design storm simulations will be presented in tabular form for peak flow and velocity in each model reach/conduit and peak stage at each model junction/node. Model results will be compared against current City level of service standards and/or industry standards to identify existing infrastructure deficiencies. CDM Smith's evaluation will attempt to identify the following basin problems, at a minimum:

- location and frequency of flooding for roadways and structures
- areas of existing erosion or high erosion potential
- undersized or deteriorated drainage facilities

CDM Smith will summarize the results of the modeling into a Technical Memorandum as a deliverable to the City. CDM Smith staff will meet with City staff to review the results of the modeling and modify the technical memorandum as needed. Once approved, the results will be incorporated into the Master Plan as described in Task 8.

**Task 6 Water Quality Analysis**

CDM Smith will develop a watershed pollutant loading model for Hatcher Springs that will estimate pollutant loads originating from existing development and from potential future development on an annual basis. The following sections summarize the work to be completed for this task:

**Task 6.1                      *Model Parameter Development***

A standard pollutant loading model requires both land use and estimated pollutant load generation rates as inputs to compute annual pollutant loads. The land use scenarios for the water quality model will be identical to the land use scenarios developed as part of the hydrologic and hydraulic modeling effort noted above.

CDM Smith will meet with staff to select the pollutants of interest for the watershed pollutant loading model. For a standard water quality evaluation, typical pollutants include BOD, COD, TSS, TDS, TP, DP, TKN, and

various metals. For each of the selected pollutants, CDM Smith will identify appropriate event mean concentrations (EMCs), which are used in the watershed pollutant loading model to predict annual and seasonal pollutant loads from various land uses for average rainfall events. CDM Smith will evaluate local (e.g. Nashville, USGS, etc.) and national EMC databases (e.g. Nationwide Urban Runoff Program or NURP) to determine the most appropriate pollutant loading factors for use in the Hatcher Springs water quality model.

#### ***Task 6.2                      Pollutant Loading Model Development/Execution***

The Watershed Management Model (WMM), developed by CDM Smith and used extensively through the US, has been selected for use on this project. WMM is a database model that was developed to estimate average annual pollutant loads from various land uses and relative benefits derived from the implementation of specific treatment control BMPs, which is particularly beneficial in planning because it can provide a forecast of the relative impact of future actions.

CDM Smith will use the subbasins delineated for the hydrologic model as the same catchment areas for the WMM. The parameters identified above will be assigned to their representative catchment areas and used as inputs for the model. CDM Smith will compute the model for the land use scenarios identified above: 1) existing land use and 2) future, built-out scenario.

#### ***Task 6.3                      Problem Area Identification***

CDM Smith will use the WMM to identify potential pollutant loading “hotspots” throughout Hatcher Springs. “Hotspots” will be defined as areas exceeding pollutant loading thresholds. CDM Smith will develop thematic maps of each land use condition and each of the chosen pollutant parameters in order to show the impact of future development on basin-wide pollutant loadings.

#### **Task 7 Alternatives Evaluation and Cost Development**

CDM Smith will conduct an alternatives evaluation in order to develop recommendations for the mitigation of undesirable stormwater impacts within the basin, such as structural flooding, roadway flooding, erosion potential, aquatic integrity, water quality issues, and wetlands/stream corridor protection. Alternatives will be directed towards solving the highest priority flooding and erosion problems, which will also aid/relieve some nuisance problems. The alternatives will be based on comprehensive water quality and water quantity solutions, which may consist of non-structural (ordinance or regulations and maintenance operations) or structural solutions.

#### ***Task 7.1                      Flood Control/Water Quantity Improvement Alternative Evaluation***

For the problems identified in Tasks 4 and 5, CDM Smith will perform an evaluation of improvement alternatives to mitigate flooding impacts to roads and/or structures. The evaluation will include the consideration of stormwater infrastructure improvements, stormwater detention, changes to roadway elevations, floodplain alterations, buy-outs, etc. The target for each improvement alternative will be to achieve the stated performance standard for both roadway and structural flooding. Based on feedback from the City, CDM will select one alternative to evaluate for each infrastructure issue. For scoping, up to 10 projects/alternatives have been assumed. The alternatives evaluation will also include the development of planning level cost estimates for each recommended improvement. In addition, any existing facilities that are found during the field reconnaissance to be deteriorated will be identified (e.g. crushed or rusted pipe, eroded outlets) and will be included in the recommended improvements.

#### ***Task 7.2                      Water Quality/Environmental Improvement Alternative Evaluation***

Using the in-stream assessment (as provided by the City) and modeling findings from the previous tasks, CDM Smith will evaluate water quality/environment improvement alternatives for areas that were identified as problem areas. Anticipated improvements to be considered include, but will not be limited to, preservation, stream bank restoration/enhancement, BMP implementation and land use/management changes.

CDM Smith will perform a BMP siting evaluation to identify potential locations for up to five structural stormwater BMPs capable of providing water quality and/or flood control benefit. The BMPs will be identified using City GIS data and field reconnaissance. The types of BMPs expected to be considered include

wet detention ponds, dry detention ponds, stormwater wetlands, bioretention cells, level spreaders/vegetated filter strips, stream restoration, infiltration BMPs, and manufactured devices.

CDM Smith will also evaluate potential stream restoration areas based on the results of the modeling. Up to 5 areas will be identified and prioritized based on such factors as cost, hydraulics, monitorability, permitting, mitigation credit, constructability, water quality improvements, aesthetics, maintenance and other associated impacts.

CDM Smith will develop conceptual opinions of probable cost for each of the BMP and stream projects. Costs for BMPs will be developed using cost equations, typically based on BMP surface area or watershed area. Costs for stream enhancements will be generated using standardized unit costs based upon the management recommendation proposed (i.e. \$150 per linear foot for Priority 1 stream restoration). A final alternative improvement recommendation will be made for each reach/area and then between the different reaches/areas, resulting in an overall prioritized list of improvements by reach/area based on need and feasibility

### **Task 8 Master Plan Development**

CDM Smith will produce a Watershed Master Plan (WMP) summarizing the work from Tasks 1 through 7. The WMP will include the identification and summary of stormwater management issues presently existing in the watershed and those predicted to occur with future development. Based on the alternatives evaluation performed in Task 7, CDM Smith will compile a list of CIP and watershed improvement projects. Recognizing that the City has limited funding for large capital projects, CDM Smith will provide a project ranking protocol based on a planning level, cost-benefit analysis. CDM Smith will collaborate with the City to identify priorities. The ranking protocol will consider public safety concerns, severity of flooding, potential for water quality improvements, and implementation difficulty (i.e. permitting concerns). The end result will be a prioritized list of projects for use by the City in populating the CIP.

CDM Smith will prepare an executive summary of the report providing limited color and illustrations for public consumption. CDM Smith will prepare up to five (5) copies of the draft report for review and comment by City staff. The draft will also be presented as an electronic file in Adobe Acrobat PDF format. CDM Smith will incorporate one round of comments made by the City on the draft report into a final report. CDM Smith will provide the City with five (5) printed copies and one electronic copy (in Adobe Acrobat PDF format) of the final report. The report appendix will include relevant field and modeling data. CDM Smith will prepare the reports from a laymen's point of view, justifying recommended approaches.

As a deliverable, CDM Smith will also prepare an overall map of existing issues, predicted future issues and recommended improvements. The final project deliverable will also include electronic files of all GIS data generated as a part of this project, which includes shapefiles of existing and future floodplain boundaries, and all files supporting the modeling efforts.

### **Task 9 Optional Tasks**

The following task have been identified as optional. This task will not be completed unless CDM Smith is notified in writing of authorization to proceed with these tasks.

#### **Task 9.1 *Floodprone Building Survey and Data Integration***

Once floodplain mapping is complete, CDM Smith will identify those structures within the existing and future 100-year floodplain. The list of structures will be presented to the City for review. Upon review, the City will notify CDM Smith of the structures that will require additional survey to determine flooding depth or depth of inundation. CDM Smith will survey the finished floor and lowest adjacent grade of structures that are identified by the City. Building information will be integrated with GIS building footprints and used in the master plan in the assessment of flood risk/damage. The cost for this task will be based on a per structure unit cost.

**Fee for Scope of Services:**

For the Scope of Services under Tasks 1 through 8 of this Exhibit, the City of Franklin agrees to pay CDM Smith on a billing rate basis up to a maximum, not-to-exceed upper limit of (\$110,000). This budget includes an allowance of \$20,000 for field survey based on assumed need. CDM will invoice the City on a monthly basis based on work completed. Task 9 is optional and will not be completed unless CDM is notified in writing of authorization to proceed.

Should changes or extra services be needed, which will cause a cost overrun; CDM Smith will consult with the City for adjustments prior to conducting the work.



**CITY OF FRANKLIN, TENNESSEE  
PROFESSIONAL SERVICES AGREEMENT  
COF Contract No 2012-0157**

THIS PROFESSIONAL SERVICES AGREEMENT (“Agreement”) is by and between the City of Franklin, Tennessee, hereinafter referenced as City, and CDM SMITH hereinafter referenced as Consultant, who mutually agrees as follows:

**DECLARATIONS.** City desires to retain Consultant to provide engineering, related technical, and other services in connection with City’s project hereinafter referenced as Project. The Project is described as follows:

**Hatcher Springs – Watershed Master Planning Project**

1. **SCOPE OF SERVICES.** Consultant shall provide engineering and related technical services for the Project in accordance with the SCOPE OF SERVICES. The SCOPE OF SERVICES as found in Exhibit A shall be considered as an integral part hereof.
2. Consultant shall be paid monthly on an hourly basis for work performed an Amount Not To Exceed ONE HUNDRED AND TEN THOUSAND AND NO/100 DOLLARS (\$110,000.00).
3. In event of a conflict between this Agreement and the attached document(s), this Agreement shall supersede conflicting terms and conditions.

The Board of Mayor and Aldermen Approved this Agreement on the \_\_\_\_\_ Day of \_\_\_\_\_ 2012.

BY: \_\_\_\_\_  
Consultant’s Signature  
TITLE: \_\_\_\_\_  
Date: \_\_\_\_\_

BY: \_\_\_\_\_  
Dr. Ken Moore  
Mayor  
Date: \_\_\_\_\_

## TERMS AND CONDITIONS FOR PROFESSIONAL SERVICES

### ARTICLE 1. SERVICES. Consultant will:

- 1.1 Act for City in a professional manner, using that degree of care and skill ordinarily exercised by and consistent with standards of competent consultants using the standards in the industry:
- 1.2 Consider all reports to be confidential and distribute copies of the same only to those persons specifically designated by the City.
- 1.3 Perform all services under the general direction of a senior professional employee, licensed and/or registered in the State of Tennessee, when appropriate.
- 1.4 Retain pertinent records relating to the services performed for a period of seven (7) years following the completion of the work; during this period the records shall be available for review by City at all reasonable times.

### ARTICLE 2. CITY'S RESPONSIBILITIES. City, or its authorized representative, will:

- 2.1 Provide Consultant with all information regarding the Project, which is available to, or reasonably obtainable by, the City.
- 2.2 Furnish right-of-entry onto the Project site for Consultant's necessary field studies and surveys. Consultant will endeavor to restore the site to its original condition and shall remain solely liable for all damages, costs and expenses, including reasonable attorneys' fees, for failure to make such restoration.
- 2.3 Designate, in writing, the sole Project representative to coordinate with and direct the Consultant, including all contact information.
- 2.4 Guarantee to Consultant that it has the legal capacity to enter into this contract and that sufficient monies are available to fund Consultant's compensation.

### ARTICLE 3. GENERAL CONDITIONS.

- 3.1 Consultant, by the performance of services covered hereunder, does not in any way assume, abridge or abrogate any of those duties, responsibilities or authorities customarily vested in other professionals or agencies participating in the Project.
- 3.2 Consultant shall be responsible for the acts or omissions of any party involved in concurrent or subsequent phases of the PROJECT acting upon written instruction issued by the Consultant.
- 3.3 Neither City nor Consultant may assign or transfer its duties or interest in this Agreement without written consent of the other party. However, nothing in this Article shall prevent Consultant from

engaging independent consultants, associates, and subcontractors to assist in the performance of the Services at Consultant's cost.

3.4 ALLOCATION OF RISK AND LIABILITY; GENERAL. Considering the potential liabilities that may exist during the performance of the services of this Agreement, the relative benefits and risks of the Project, and the Consultant's fee for the services rendered, and in consideration of the promises contained in this Agreement, the City and the Consultant agree to allocate and limit such liabilities in accordance with this Article.

3.5 INDEMNIFICATION. Consultant agrees to indemnify and hold City harmless from and against legal liability for all judgments, losses, damages, and expenses to the extent such judgments, losses, damages, or expenses are caused by Consultant's negligent act, error or omission in the performance of the services of this Agreement. In the event judgments, losses, damages, or expenses are caused by the joint or concurrent negligence of Consultant and City, they shall be borne by each party in proportion to its own negligence.

3.5.1 SURVIVAL. The terms and conditions of this paragraph shall survive completion of this services agreement.

3.6 LIMITATIONS OF RESPONSIBILITY. Consultant shall not be responsible for (a) construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the Project unless specifically undertaken in Attachment A, SCOPE OF SERVICES; (b) the failure of any contractor, subcontractor, Consultant, or other Project participant, not under contract to Consultant, to fulfill contractual responsibilities to City or to comply with federal, state, or local laws, regulations, and codes; or (c) procuring permits, certificates, and licenses required for any construction unless such procurement responsibilities are specifically assigned to Consultant in Attachment A, SCOPE OF SERVICES.

**ARTICLE 4. TERMINATION BY THE CITY.** The City may terminate this Agreement in accordance with the following terms and conditions:

4.1 Termination for Convenience. The City may, when in the interests of the City, terminate performance under this Agreement with the Consultant, in whole or in part, for the convenience of the City. The City shall give written notice of such termination to the Consultant specifying when termination becomes effective. The Consultant shall incur no further obligations in connection with the work so terminated, other than warranties and guarantees for completed work and installed equipment, and the Consultant shall stop work when such termination becomes effective. The Consultant shall also terminate

outstanding orders and subcontracts for the affected work. The Consultant shall settle the liabilities and claims arising out of the termination of subcontracts and orders. The City may direct the Consultant to assign the Consultant's right, title and interest under termination orders or subcontracts to the City or its designee. The Consultant shall transfer title and deliver to the City such completed or partially completed work and materials, equipment, parts, fixtures, information and Contract rights as the Consultant has in its possession or control. When terminated for convenience, the Consultant shall be compensated as follows:

- (1) The Consultant shall submit a termination claim to the City specifying the amounts due because of the termination for convenience together with costs, pricing or other data required by the City. If the Consultant fails to file a termination claim within one (1) year from the effective date of termination, the City shall pay the Consultant the amount the City deems the Consultant is due.
- (2) The City and the Consultant may agree to the compensation, if any, due to the Consultant hereunder.
- (3) Absent agreement to the amount due to the Consultant, the City shall pay the Consultant the following amounts:
  - (a) Contract costs for labor, materials, equipment and other services accepted under this Agreement;
  - (b) Reasonable costs incurred in preparing to perform and in performing the terminated portion of the work, and in terminating the Consultant's performance, plus a fair and reasonable allowance for direct job site overhead and earned profit thereon (such profit shall not include anticipated profit or consequential damages); provided however, that if it reasonably appears that the Consultant would have not profited or would have sustained a loss if the entire Agreement would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss, if any;

The total sum to be paid the Consultant under this Section shall not exceed the total Agreement Price, as properly adjusted, reduced by the amount of payments otherwise made, and shall in no event include duplication of payment.

- 4.2 Termination for Cause. If the Consultant does not perform the work, or any part thereof, in a timely manner, supply adequate labor, supervisory personnel or proper equipment or materials, or if it fails to timely discharge its obligations for labor, equipment and materials, or proceeds to disobey applicable law, or otherwise commits a violation of a material provision of this Agreement, then the City, in addition to any other rights it may have against the Consultant or others, may terminate the performance of the Consultant, in whole or in part at the City's sole option, and assume possession of the Project Plans and materials and may complete the work.

In such case, the Consultant shall not be paid further until the work is complete. After Completion has been achieved, if any portion of the Contract Price, as it may be modified hereunder, remains after the cost to the City of completing the work, including all costs and expenses of every nature incurred, has been deducted by the City, such remainder shall belong to the Consultant. Otherwise, the Consultant shall pay and make whole the City for such cost. This obligation for payment shall survive the termination of the Agreement.

In the event the employment of the Consultant is terminated by the City for cause pursuant to this Section and it is subsequently determined by a Court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a Termination for Convenience under this Section and the provisions of Section 4.1 shall apply.

- 4.3 Termination for Non-Appropriation. The City may also terminate this Agreement, in whole or in part, for non-appropriation of sufficient funds to complete or partially complete the Project, regardless of the source of such funds, and such termination shall be on the terms of Section 4.1.
- 4.4 The City's rights under this Section shall be in addition to those contained elsewhere herein or provided by law.

**ARTICLE 5. SCOPE OF SERVICES.** Consultant shall provide the Services as described in Attachment A, SCOPE OF SERVICES.

5.1 By mutual agreement, this contract and scope can be amended by the parties. The scope and fee for any additional tasks or services under such amendment shall be mutually negotiated and agreed to in writing prior to beginning such additional tasks or services.

5.2 **ENVIRONMENTAL RESPONSIBILITY.**

Where drilling/sampling services are involved, the samples obtained from the Project site are the property of the City. Should any of these samples be recognized by the Consultant to be contaminated, the City shall remove them from the Consultant's custody and transport them to a disposal site, all in accordance with applicable government statutes, ordinances, and regulations. For all other samples, the Consultant shall retain them for a sixty (60)-day period following the submission of the drilling/sampling report unless the City directs otherwise; thereafter, the Consultant shall discard the samples in accordance with all federal, state and local laws.

**ARTICLE 6. SCHEDULE.**

6.1 **TIME OF THE ESSENCE.** The parties agree that TIME IS OF THE ESSENCE with respect to the parties' performance of all provisions of the Agreement.

6.2 **FORCE MAJEURE.** Neither party will be liable to the other for any delay or failure to perform any of the services or obligations set forth in this Agreement due to causes beyond its reasonable control, and performance times will be considered extended for a period of time equivalent to the time lost because of such delay plus a reasonable period of time to allow the parties to recommence performance of their respective obligations hereunder. Should a circumstance of force majeure last more than ninety (90) days, either party may by written notice to the other terminate this Agreement. The term "force majeure" as used herein shall mean the following: acts of God; strikes, lockouts or other industrial disturbances; acts of public enemies; orders or restraints of any kind of the government of the United States or of the State or any of their departments, agencies or officials, or any civil or military authority; insurrections, riots, landslides, earthquakes, fires, storms, tornadoes, droughts, floods, explosions, breakage or accident to machinery, transmission pipes or canals; or any other cause or event not reasonably within the control of either party.

6.3 Should City request changes in the scope, extent, or character of the Project, the fee and the time of performance of Consultant's services as indicated in Attachment A shall be adjusted equitably.

## ARTICLE 7. USE OF DOCUMENTS, DATA.

7.1 All Documents, including, but not limited to, reports, drawings, specifications, and computer software prepared by Consultant pursuant to this Agreement are instruments of service in respect to the Project. Consultant shall retain an ownership and property interest therein (including the right of reuse at the discretion of the Consultant) whether or not the Project is completed.

7.1.1 USE OF DATA SYSTEMS: Ownership, property interests and proprietary rights in data systems used by Consultant do not extend to the data created by or supplied to Consultant by the City; all rights to that data (including derivative or hidden data such as metadata) shall vest solely in City at the moment of creation.

7.1.2 DISCLOSURE OF DOCUMENTS/DATA. City may be required to disclose documents or data under state or federal law. City shall notify Consultant if a request for data or documents has been made and shall give Consultant a reasonable opportunity under the circumstances to respond to the request by redacting proprietary or other confidential information. Consultant waives any right to confidentiality of any document, e-mail or file it fails to clearly mark on each page as confidential or proprietary. In exchange, Consultant agrees to indemnify, defend, and hold harmless City for any claims by third parties relating thereto or arising out of (i) the City's failure to disclose such documents or information required to be disclosed by law, or (ii) the City's release of documents as a result of City's reliance upon Consultant representation that materials supplied by Consultant (in full or redacted form) do not contain trade secrets or proprietary information, provided that the City impleads Consultant and Consultant assumes control over that claim.

7.2 City-furnished data that may be relied upon by Consultant is limited to the printed copies that are delivered to the Consultant pursuant to Article 2 of this Agreement. Any copyrighted electronic files furnished by City shall be used by Consultant only for the Project as described herein. City's posting or publication of such documents created by Consultant for City shall constitute fair use and shall not constitute an infringement of Consultant's copyright, if any.

7.3 Documents that may be relied upon by City are limited to the printed copies (also known as hard copies) that are signed or sealed by the Consultant. Files in electronic media format of text, data, graphics, or

of other types that are furnished by Consultant to City are only for convenience of City, unless the delivery of the Project in electronic media format has been dictated in Attachment A, SCOPE OF SERVICES. Any conclusion or information obtained or derived from electronic files provided for convenience will be at the user's sole risk.

- 7.4 Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files. Unless stated otherwise herein, Consultant shall not be responsible to maintain documents stored in electronic media format after acceptance by City.
- 7.5 When transferring documents in electronic media format, Consultant makes no representations as to long term compatibility, usability, or readability, of documents resulting from the use of software application packages, operating systems, or computer hardware differing from that as required of, and used by, Consultant at the beginning of this Project.
- 7.6 City may make and retain copies of Documents for information and reference in connection with use on the Project by the City, or his authorized representative. Such Documents are not intended or represented to be suitable for reuse by City or others on extensions of the Project or on any other project. Any such reuse or modifications without written verification or adaptation by Consultant, as appropriate for the specific purpose intended, will be at City's sole risk and without liability or legal exposure to the Consultant or to Consultant's Consultants.
- 7.7 If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- 7.8 Any verification or adaptation of the Documents for extensions of the Project or for any other project will entitle Consultant to further compensation at rates to be agreed upon by City and Consultant.

#### ARTICLE 8. INSURANCE.

- 8.1 During the performance of the Services under this Agreement, Consultant shall maintain the following minimum insurance:
- a) General Liability Insurance with a combined single limit of \$1,000,000 per occurrence and \$2,000,000 annual aggregate.
  - b) Automobile Liability Insurance with a combined single limit of \$1,000,000 for each person and \$1,000,000 for each accident.



- c) Workers' Compensation Insurance Coverage A in accordance with statutory requirements and Coverage B, Employer's Liability Insurance, with a limit of \$500,000 for each occurrence.
  - d) Professional Liability Insurance with a limit of \$1,000,000 annual aggregate.
- 8.2 Consultant shall add the City an additional insured on all policies unless otherwise prohibited.
- 8.3 Consultant shall, upon execution of this Agreement, furnish City certificates of insurance, which shall include a provision that such insurance shall not be canceled without at least thirty days' written notice to City.
- 8.4 No insurance, of whatever kind or type is to be considered as in any way limiting other parties' responsibility for damages resulting from their activities in the execution of the Project. City agrees to include, or cause to be included, in the Project's construction contract, such requirements for insurance coverage and performance bonds by the Project's construction contractor as City deems adequate to indemnify City, Consultant, and other concerned parties against claims for damages and to insure compliance of work performance and materials with Project requirements.

#### ARTICLE 9. PAYMENT.

- 9.1 City will pay Consultant for services and expenses in accordance with the Fee Schedule proposal submitted for the Project as part of the Scope Of Services. Consultant's invoices will be presented at the completion of the work or monthly and will be payable upon receipt. Payment is due upon presentation of invoice and is past due thirty (30) days from invoice date. City shall give prompt written notice of any disputed amount and shall pay the remaining amount.
- 9.2 Consultant shall be paid in full for all services under this Agreement, including City-authorized overruns of the Project budget or unforeseen need for Consultant's services exceeding the original Scope Of Services.
- 9.3 TRAVEL; EXPENSES  
The City shall reimburse reasonable expenses, including travel and meals, when specified in the Scope Of Services, but only in accordance with the City's Travel and Expense Policy and Procedures Manual. The maximum amount will be applied as of the date of travel and as listed in the per diem reimbursement rates on the "CONUS" website developed by the United States General Services Administration, located at [www.gsa.gov](http://www.gsa.gov) [click on 'per diem rates' under the 'etools' category].

**ARTICLE 10. MISCELLANEOUS PROVISIONS**

10.1 **EQUAL EMPLOYMENT OPPORTUNITY.** In connection with this Agreement and the Project, the City and the Consultant shall not discriminate against any employee or applicant for employment because of race, color, sex, national origin, disability or marital status. The City and Consultant will take affirmative action to ensure that contractor used for the Project does not discriminate against any employee and employees are treated during employment without regard to their race, age, religion, color, gender, national origin, disability or marital status. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination, rates of pay or other forms of compensation; and selection for training, including apprenticeship.

10.1.1 The Consultant shall insert the foregoing provision in all contracts relating to this Project.

10.2 **TITLE VI – CIVIL RIGHTS ACT OF 1964.** The City and the Consultant shall comply with all the requirements imposed by Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d), 49 C.F.R., Part 21, and related statutes and regulations.

10.2.1 The Consultant shall insert the foregoing provision in all contracts relating to this Project.

10.3 **NO THIRD PARTY RIGHTS CREATED.** City and Consultant each binds itself and its successors, executors, administrators, permitted assigns, legal representatives and, in the case of a partnership, its partners, to the other party to this Agreement and to their successors, executors, administrators, permitted assigns, legal representatives and partners of such other party in respect to all provisions of this Agreement. The Services provided for in this Agreement are for the sole use and benefit of City and Consultant. Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than the City and the Consultant.

10.4 **WARRANTIES/LIMITATION OF LIABILITY/WAIVER.** The City reserves all rights afforded to local governments under law for all general and implied warranties. The City does not waive any rights it may have to all remedies provided by law and therefore any attempt by Consultant to limit its liability shall be void and unenforceable.

**ARTICLE 11. EXTENT OF AGREEMENT:**

11.1 **APPLICABLE LAW/CHOICE OF FORUM AND VENUE.** This Agreement is made under and will be construed in accordance with the laws of the State of Tennessee without giving effect to that state's

choice of law rules. The parties' choice of forum and venue shall be exclusively in the courts of Williamson County, Tennessee. Any provision of this Agreement held to violate a law or regulation shall be deemed void, and all remaining provisions shall continue in force.

- 11.2 ENTIRE AGREEMENT. This Agreement, including these terms and conditions, represent the entire Agreement between City and Consultant for this Project and supersedes all prior negotiations, representations or agreements, written or oral. This Agreement may be amended only by written instrument signed by City and Consultant.

**ARTICLE 12. DISPUTE RESOLUTION, BREACH.**

- 12.1 If a dispute should arise relating to the performance of or payment for the services under this Agreement, the aggrieved party shall notify the other party of the dispute within a reasonable time after such dispute arises. During the pendency of any dispute, the parties shall continue diligently to fulfill their respective obligations hereunder. No arbitration or mediation shall be required as a condition precedent to filing any legal claim arising out of or relating to the Contract. No arbitration or mediation shall be binding.
- 12.2 BREACH. Upon deliberate breach of the Contract by either party, the non-breaching party shall be entitled to terminate the Contract with notice, with all of the remedies it would have in the event of termination, and may also have such other remedies as it may be entitled to in law or in equity.

**ARTICLE 13. SURVIVAL.**

The provisions contained in this Professional Services Agreement shall survive the completion of or any termination of the Contract, agreement or other document to which it may accompany or incorporate by reference or which subsequently may be modified, unless expressly excepted from this Article upon consent of both parties.