


Municipality	<b>L O C A L  A G E N C Y</b>	 <b>Illinois Department of Transportation</b>	<b>C O N S U L T A N T</b>	Name STV Incorporated
Township				Address 200 W. Monroe Street, Suite 1650
County Lake County – Division of Transportation		<b>Preliminary Engineering Services Agreement For Motor Fuel Tax Funds</b>		City Chicago
Section 17-00143-15-RS		State Illinois		

THIS AGREEMENT is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2020 between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the improvement of the above SECTION. Motor Fuel Tax Funds, allotted to the LA by the State of Illinois under the general supervision of the State Department of Transportation, hereinafter called the "DEPARTMENT", will be used entirely or in part to finance ENGINEERING services as described under AGREEMENT PROVISIONS.

### Section Description

Name York House Road Reconstruction and Widening

Route CH 65 Length 14435.00 Mi. 2.73 FT (Structure No. N/A )

Termini IL 131 (Green Bay Road) to IL 137 (Sheridan Road)

**Description:**

Phase I Engineering, based on Motor Fuel Tax (MFT) procedures, for roadway improvements along York House Road.

### Agreement Provisions

**The Engineer Agrees,**

1. To perform or be responsible for the performance of the following engineering services for the LA, in connection with the proposed improvements herein before described, and checked below:
  - a.  Make such detailed surveys as are necessary for the preparation of detailed roadway plans
  - b.  Make stream and flood plain hydraulic surveys and gather high water data, and flood histories for the preparation of detailed bridge plans.
  - c.  Make or cause to be made such soil surveys or subsurface investigations including borings and soil profiles and analyses thereof as may be required to furnish sufficient data for the design of the proposed improvement. Such investigations are to be made in accordance with the current requirements of the DEPARTMENT.
  - d.  Make or cause to be made such traffic studies and counts and special intersection studies as may be required to furnish sufficient data for the design of the proposed improvement.
  - e.  Prepare Army Corps of Engineers Permit, **Lake County Stormwater Management Commission Permit**, Department of Natural Resources-Office of Water Resources Permit, Bridge waterway sketch, and/or Channel Change sketch, Utility plan and locations, and Railroad Crossing work agreements.
  - f.  Prepare Preliminary Bridge design and Hydraulic Report, (including economic analysis of bridge or culvert types) and high water effects on roadway overflows and bridge approaches.
  - g.  Make complete general and detailed plans, special provisions, proposals and estimates of cost and furnish the LA with **one (1) copy of each document in both hardcopy and electronic format**. Additional copies of any or all documents, if required, shall be furnished to the LA by the ENGINEER at the ENGINEER's actual cost for reproduction.
  - h.  Furnish the LA with survey and drafts in **duplicate** of all necessary right-of-way dedications, construction easement and borrow pit and channel change agreements including prints of the corresponding plats and staking as required.
  - i.  Assist the LA in the tabulation and interpretation of the contractors' proposals.

- j.  Prepare the necessary environmental documents in accordance with the procedures adopted by the DEPARTMENT's Bureau of Local Roads & Streets.
  - k.  Prepare the Project Development Report when required by the DEPARTMENT.
  - l.  **Services as included and/or defined in the attached Scope of Services.**
2. That all reports, plans, plats and special provisions to be furnished by the ENGINEER pursuant to the AGREEMENT, will be in accordance with current standard specifications and policies **of the LA and** of the DEPARTMENT. It is being understood that all such reports, plats, plans and drafts shall, before being finally accepted, be subject to approval by the LA and the DEPARTMENT.
  3. To attend conferences at any reasonable time when requested to do so by representatives of the LA or the Department.
  4. In the event plans or surveys are found to be in error during construction of the SECTION and revisions of the plans or survey corrections are necessary, the ENGINEER agrees that the ENGINEER will perform such work without expense to the LA, even though final payment has been received by the ENGINEER. The ENGINEER shall give immediate attention to these changes so there will be a minimum delay to the CONTRACTOR.
  5. That basic survey notes and sketches, charts, computations and other data prepared or obtained by the ENGINEER pursuant to this AGREEMENT will be made available, upon request, to the LA or the DEPARTMENT without cost and without restriction or limitations as to their use.
  6. That all plans and other documents furnished by the ENGINEER pursuant to this AGREEMENT will be endorsed by the ENGINEER and will show the ENGINEER's professional seal where such is required by law.

**The LA Agrees,**

1. ~~To pay the ENGINEER as compensation for all services rendered in accordance with this AGREEMENT according to the following method indicated by a check mark:~~
  - a.  A sum of money equal to \_\_\_\_\_ percent of the awarded contract cost of the proposed improvement as approved by the DEPARTMENT.
  - b.  A sum of money equal to the percent of the awarded contract cost for the proposed improvement as approved by the DEPARTMENT based on the following schedule:

~~Schedule for Percentages Based on Awarded Contract Cost~~

Awarded Cost	Percentage Fees	(see note)
Under \$50,000	_____	%
_____	_____	%
_____	_____	%

~~Note: Not necessarily a percentage. Could use per diem, cost-plus or lump sum.~~

2. To pay for all services rendered in accordance with this AGREEMENT at the actual cost of performing such work plus **\*\*** percent to cover profit, overhead and readiness to serve - "actual cost" being defined as material cost plus payrolls, insurance, social security and retirement deductions. Traveling and other out-of-pocket expenses will be reimbursed to the ENGINEER at the ENGINEER's actual cost. Subject to the approval of the LA, the ENGINEER may sublet all or part of the services provided in section 1 of the ENGINEER AGREES. If the ENGINEER sublets all or part of this work, the LA will pay the cost to the ENGINEER plus an additional service charge of up to five (5) percent.

"Cost to Engineer" to be verified by furnishing the LA and the DEPARTMENT copies of invoices from the party doing the work. The classifications of the employees used in the work should be consistent with the employee classifications for the services performed. If the personnel of the firm, including the Principal Engineer, perform routine services that should normally be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the work performed. **\*\*See the CECS**

**The Total Not-to-Exceed Contract Amount shall be \$1163291.00**

3. That payments due the ENGINEER for services rendered in accordance with this AGREEMENT will be made as soon as practicable after the services have been performed. ~~in accordance with the following schedule:~~

- ~~a. Upon completion of detailed plans, special provisions, proposals and estimate of cost - being the work required by section 1 of the ENGINEER AGREES - to the satisfaction of the LA and their approval by the DEPARTMENT, 90 percent of the total fee due under this AGREEMENT based on the approved estimate of cost.~~
- ~~b. Upon award of the contract for the improvement by the LA and its approval by the DEPARTMENT, 100 percent of the total fee due under the AGREEMENT based on the awarded contract cost, less any amounts paid under "a" above.~~

By Mutual agreement, partial payments, ~~not to exceed 90 percent of the amount earned~~, may be made from time to time as the work progresses.

4. That, should the improvement be abandoned at any time after the ENGINEER has performed any part of the services provided for in sections 1 and 3 of the ENGINEER AGREES and prior to the completion of such services, the LA shall reimburse the ENGINEER for the ENGINEER's actual costs plus \*\* percent incurred up to the time the ENGINEER is notified in writing of such abandonment - "actual cost" being defined as in paragraph 2 of the LA AGREES.
5. That, should the LA require changes in any of the detailed plans, specifications or estimates except for those required pursuant to paragraph 4 of the ENGINEER AGREES, after they have been approved by the DEPARTMENT, the LA will pay the ENGINEER for such changes on the basis of actual cost plus \*\* percent to cover profit, overhead and readiness to serve - "actual cost" being defined as in paragraph 2 of the LA AGREES. It is understood that "changes" as used in this paragraph shall in no way relieve the ENGINEER of the ENGINEER's responsibility to prepare a complete and adequate set of plans and specifications.

**\*\*See the CECS**

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#### **It is Mutually Agreed,**

1. That any difference between the ENGINEER and the LA concerning their interpretation of the provisions of this Agreement shall be referred to a committee of disinterested parties consisting of one member appointed by the ENGINEER, one member appointed by the LA and a third member appointed by the two other members for disposition and that the committee's decision shall be final.
2. This AGREEMENT may be terminated by the LA upon giving notice in writing to the ENGINEER at the ENGINEER's last known post office address. Upon such termination, the ENGINEER shall cause to be delivered to the LA all surveys, permits, agreements, preliminary bridge design & hydraulic report, drawings, specifications, partial and completed estimates and data, if any from traffic studies and soil survey and subsurface investigations with the understanding that all such material becomes the property of the LA. The ENGINEER shall be paid for any services completed and any services partially completed in accordance with section 4 of the LA AGREES.
3. That if the contract for construction has not been awarded one year after the acceptance of the plans by the LA and their approval by the DEPARTMENT, the LA will pay the ENGINEER the balance of the engineering fee due to make 100 percent of the total fees due under this AGREEMENT, based on the estimate of cost as prepared by the ENGINEER and approved by the LA and the DEPARTMENT.
4. That the ENGINEER warrants that the ENGINEER has not employed or retained any company or person, other than a bona fide employee working solely for the ENGINEER, to solicit or secure this contract, and that the ENGINEER has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the ENGINEER, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this contract. For Breach or violation of this warranty the LA shall have the right to annul this contract without liability.

IN WITNESS WHEREOF, the parties have caused the AGREEMENT to be executed in quintuplicate counterparts, each of which shall be considered as an original by their duly authorized officers.

Executed by the LA:

ATTEST: County of Lake of the  
(Municipality/Township/County)  
State of Illinois, acting by and through its  
County Board  
By Lake County Clerk  
(Seal) By  
Title Chair, Lake County Board

RECOMMENDED FOR EXECUTION

Shane E. Schneider, P.E.  
Director of Transportation/County Engineer  
Lake County

Executed by the ENGINEER:

Engineering Firm  
Street Address  
City, State  
ATTEST:  
By  
Title  
By  
Title

Approved  
Date  
Department of Transportation  
Regional Engineer  
County Engineer  
On behalf of IDOT pursuant to Agreement  
of Understanding dated May 3, 2018

Note: Five (5) Original Executed Contracts – (2) LCDOT; (2) IDOT District 1, Local Roads; (1) Consultant

**STV Incorporated**



**York House Road Phase I Engineering  
Scope of Services  
STV Incorporated  
May 15, 2020**

This document describes the proposed scope of engineering services to be provided by STV Incorporated (STV) to the Lake County Division of Transportation (LCDOT) for Phase I design engineering for roadway improvements along York House Road from Green Bay Road to Sheridan Road in the City of Waukegan and Village of Beach Park, Lake County, Illinois. The work will be performed in accordance with LCDOT and Illinois Department of Transportation (IDOT) standards. The project will be funded using 100% Motor Fuel Tax (MFT) funds. Phase II design and PS&E preparation are not included in the scope of work.

**1.0 Meetings and Coordination.** STV will prepare for and attend various meetings and field visits over the course of the project design.

**1.1 General Project Coordination.** STV will coordinate and communicate with LCDOT and various project stakeholders via email, telephone, and ad hoc conference calls as necessary to execute the project.

**1.2 Subconsultant Coordination.** STV will coordinate and communicate with the subconsultants via email, telephone, and ad hoc conference calls as necessary to execute the project.

**1.3 Design Meetings.** STV will prepare for and attend a series of meetings as the project design and permitting progresses. Two STV attendees and preparation of meeting minutes as applicable are anticipated.

**1.3.1 Project Kickoff Meeting.** One meeting is anticipated at LCDOT headquarters to discuss project startup, goals, and schedule.

**1.3.2 Concept Design Review.** One meeting is anticipated at LCDOT headquarters to discuss LCDOT comments on the Concept Design submittal.

**1.3.3 Lake County Stormwater Management Commission.** Two meetings are anticipated at LCSMC headquarters associated with the LCSMC WDP process.

**1.3.4 USACE.** One pre-application meeting is anticipated with the USACE.

**1.3.5 City of Waukegan.** Two meetings are anticipated with the City of Waukegan to discuss the project design. The meetings are assumed to occur at the local agency.

**1.3.6 Village of Beach Park.** Two meetings are anticipated with the Village of Beach Park to discuss the project design. The meetings are assumed to occur at the local agency.

**1.3.7 Waukegan Park District.** One meeting is anticipated at Waukegan Park District headquarters to discuss impacts to the Waukegan BMX Track/Bevier Center property.

**1.3.8 Waukegan School District.** One meeting is anticipated with Waukegan School District to discuss impacts to H R McCall Elementary School.

**1.3.9 Waukegan Port District.** One meeting is anticipated with Waukegan Port District to discuss impacts to the Waukegan National Airport.

**1.3.10 FAA.** One meeting is anticipated with the FAA to discuss impacts to the Waukegan National Airport.

**1.3.11 IDOT Aeronautics.** One meeting is anticipated with IDOT Aeronautics to discuss impacts to the Waukegan National Airport.

**1.3.12 Project Coordination Meetings.** A monthly conference call with LCDOT to discuss project status and issues. A 18 month design schedule, with 18 project

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coordination meetings, is anticipated. Each meeting is anticipated to last one hour.

**1.4 Field Visits.** STV will visit the project site to confirm existing conditions and validate the proposed design. Three field visits with two attendees for each field visit are anticipated.

**1.5 Public Meetings.** STV will lead the effort to present up to three public meetings at various points in the project. The first two public meetings are anticipated to be held, while the third public meeting will only be held if deemed necessary. A project website will be created and maintained by LCDOT.

**1.5.1 Public Meeting 1.** The first public meeting will present the existing conditions to the public to solicit input on the project purpose and need. The format of the meeting will be an open house with various stations established to explain the project. STV will perform the following tasks associated with this public meeting and will provide all meeting materials to LCDOT for LCDOT to post on the project website.

- **Notifications.** STV will compile a mailing list of stakeholders and adjacent property owners to be notified about the public meeting. STV will also prepare a notification letter and mail the letter to the identified recipients.
- **Exhibits.** STV will create exhibits for display during the meeting. The exhibits for this meeting are anticipated to include existing conditions roll plots showing aerial photographs and topographic survey, existing conditions plans, existing typical sections, and general information about the Phase I process. Existing conditions plan and profile sheets will also be available in 11"x17" size for reference at the meeting.
- **Dry Run.** Two STV attendees will participate in a dry run at LCDOT headquarters.
- **Meeting venue and attendance.** STV will secure the meeting venue and three attendees will participate in the public meeting. One visit, by one STV attendee, is anticipated to review possible meeting venues.
- **Meeting summary and comment responses.** STV will summarize the meeting and common questions received during the meeting, as well as prepare individual comment responses for unique or in-depth questions or comments.
- **Court Reporter.** A court reporter will not be required at the meeting.

**1.5.2 Public Meeting 2.** The second public meeting will occur upon the conclusion of the preferred alternative development to present the preferred alternative to the public. The format of the meeting will be an open house with various stations established to explain the project. STV will perform the following tasks associated with this public meeting and will provide all meeting materials to LCDOT for LCDOT to post on the project website.

- **Notifications.** STV will compile a mailing list of stakeholders and adjacent property owners to be notified about the public meeting. STV will also prepare a notification letter and mail the letter to the identified recipients.
- **Exhibits.** STV will create exhibits for display during the meeting. The exhibits for this meeting are anticipated to include preferred alternative roll plots showing aerial photographs and the preferred alternative, existing and



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proposed typical sections, staging, and general information about the Phase I process. Preferred alternative plan and profile sheets with dimensions and ROW requirements and cross-section sheets will also be available in 11"x17" size for reference at the meeting. Existing Drainage Plans and draft Proposed Drainage Plans will also be available in 11"x17" size for reference at the meeting.

- **Dry Run.** Two STV attendees will participate in a dry run at LCDOT headquarters.
- **Meeting venue and attendance.** STV will secure the meeting venue and three attendees will participate in the public meeting. One visit, by one STV attendee, is anticipated to review possible meeting venues.
- **Meeting summary and comment responses.** STV will summarize the meeting and common questions received during the meeting, as well as prepare individual comment responses for unique or in-depth questions or comments.
- **Court Reporter.** A court reporter will not be required at the meeting.

**1.5.3 Public Meeting 3.** The third public meeting will occur if further coordination with the public is deemed necessary, to further work through aspects with the public and other stakeholders. The format of the meeting will be an open house with various stations established to describe aspects of the project. STV will perform the following tasks associated with this public meeting and will provide all meeting materials to LCDOT for LCDOT to post on the project website.

- **Notifications.** STV will compile a mailing list of stakeholders and adjacent property owners to be notified about the public meeting. STV will also prepare a notification letter and mail the letter to the identified recipients.
- **Exhibits.** STV will create exhibits for display during the meeting. The exhibits for this meeting are anticipated to reuse the exhibits used in Public Meetings 1 and 2, plus additional exhibits highlighting controversial aspects of the project and proposed mitigation actions.
- **Dry Run.** Two STV attendees will participate in a dry run at LCDOT headquarters.
- **Meeting venue and attendance.** STV will secure the meeting venue and three attendees will participate in the public meeting. One visit, by one STV attendee, is anticipated to review possible meeting venues.
- **Meeting summary and comment responses.** STV will summarize the meeting and common questions received during the meeting, as well as prepare individual comment responses for unique or in-depth questions or comments.
- **Court Reporter.** A court reporter will not be required at the meeting.

**1.6 Utility Coordination.** STV will coordinate with utility owners regarding their existing facilities and the relocation of any facilities required due to the roadway improvements. Ten utility owners are anticipated for this scope of services.

**1.6.1 Existing Information.** STV will request existing utility information from the utility companies and provide it to Sanchez and Associates and Wantman Group for use in preparing SUE Level B base files.

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**1.6.2 SUE Level B.** See separate scope of services from Wantman Group for a description of the methods they will use to provide SUE Level B quality information.

**1.6.3 Conflict Resolution.** The goal of the project will be to design to minimize utility conflicts. For locations where conflicts occur, STV will provide information about the roadway improvements to utility owners for their use in relocating their facilities. Edits to the proposed roadway improvements may be made to avoid utility conflicts, depending on the scope and nature of identified conflicts and as agreed upon with LCDOT.

**1.6.4 Meetings with Utilities.** STV has estimated that two meeting with utility companies will be required. One STV attendee will be required at each meeting.

**1.7 ROW Acquisition.** The alternate geometrics studies will evaluate the right-of-way (ROW) impacts of each alternative with the goal of minimizing the need for ROW acquisition. Meetings with individual property owners, if needed, will occur during Phase II.

**2.0 Alternate Geometric Studies.** STV will develop preliminary geometry for initial alternatives for consideration by LCDOT. These alternatives will be evaluated in conjunction with input received from stakeholder coordination and Public Meeting 1.

**2.1 Preliminary Alternatives Development.** Preliminary geometry will be developed for the following three alternatives. Feasibility of 11' lanes at Green Bay Road, Lewis Avenue, and Sheridan Road will also be evaluated to determine if the existing pavement width can accommodate bike friendly shoulders.

- Three-Lane with bike friendly shoulders, and B.6-24 curb & gutter.
- Three-Lane with bike friendly shoulders, B.6-24 curb & gutter, and 7' carriage walk on north side of roadway (Ownership of carriage walk to be discussed with municipalities during coordination meetings 1.3.5 & 1.3.6).
- Three-Lane with bike friendly shoulders, B.6-24 curb & gutter, and 7' carriage way on the south side of roadway (Ownership of carriage walk to be discussed with municipalities during coordination meetings 1.3.5 & 1.3.6).

**2.2 Geometric Studies.** STV will provide typical section sheets, plan view roll plot aerial exhibits, and cross-section sheets for the three alternatives. The horizontal limits of these studies are anticipated to be equivalent to 11 plan and profile sheets for the Green Bay Road to Lewis Avenue segment and 15 plan and profile sheets for the Lewis Avenue to Sheridan Road segment at 1"=40' scale at 11"x17" size. Only plan view roll plot exhibits will be prepared for the preliminary alternatives development process.

- **Typical Sections.** Existing and proposed typical sections sheets will be created for each alternative. Due to this being an LCDOT-let project, existing and proposed typical sections will be overlaid on top of each other instead of having separate existing and proposed typical sections that would be required for an IDOT-let project.
- **Plan Geometry.** Preliminary horizontal layout will be required to determine limits of construction and ROW requirements.

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- **Preliminary Profile.** Preliminary vertical layout will be required to determine limits of construction and ROW requirements.
- **Cross-Sections.** Cross-sections will be provided for each alternative. These plans will be assembled under the following general assumptions:
  - Horizontal and vertical scale: 1"=5' at 11"x17" size
  - Cross-sections will be provided every 50 feet along the length of the project, plus at all driveways and side streets. Cross-sections will also be included at each cross-road culvert.
  - Green Bay Road to Lewis Avenue segment.
    - Length: approx 6360' = 127 even station cross-sections.
    - Driveways: 39 = 39 driveway cross-sections
    - Side streets: 7 = 7 side street cross-sections
    - Total cross-sections: 173, with an average of 2.5 cross-sections per sheet = 70 sheets.
  - Lewis Avenue to Sheridan Road segment.
    - Length: approx. 8200' = 164 even station cross-sections.
    - Driveways: 91 = 91 driveway cross-sections
    - Side streets: 13 = 13 side street cross-sections
    - Total cross-sections: 268, with an average of 2.5 cross-sections per sheet = 108 sheets.
  - Topographic survey items, storm sewer laterals, and miscellaneous removal items will not be shown in these cross-sections. Those elements will be added to the cross-sections during Phase II.

**2.3 Preferred Alternative Development.** Based on the results of the alternatives development, the preferred alternative will be determined. Detailed plan, profile, and cross sections sheets will be developed for the preferred alternative. The deliverable associated with this item of work is the Phase I Concept Design Plans. The geometry used to develop the plans will be used as the basis for the exhibits presented at Public Meeting 2.

**2.3.1 Plan and Profile.** STV will prepare proposed sheets showing the existing and proposed horizontal and vertical geometry of the preferred alternative. Estimated ROW requirements will be shown with dimensions. Horizontal scale: 1"=40' at 11"x17" size, vertical scale: 1"=4' at 11"x17" size. If a significant amount of vertical relief is determined to be needed, the profile will be split to maintain a 1"=4' vertical scale.

**2.3.2 Intersection Design Study.** STV will prepare an Intersection Design Study (IDS) for the McAree Road intersection.

- Sheet will be a single plan with a 1"=40' scale at 11"x17" size, plus additional sheets as needed to show roadway profiles and turning movement diagrams.
- STV will perform geometric analysis for turning movements, non-motorized accommodations, and to ensure space is available within the right-of-way to install the signal pole in the southeast quadrant within

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the right-of-way. This signal pole is currently located outside the right-of-way.

- IDS traffic capacity and signal evaluation will be completed by Gandhi & Associates as stated in their scope. Traffic counts for the IDS will be collected by Gandhi & Associates.

**3.0 Location Drainage Technical Memorandum (LDTM).** STV will prepare an LDTM in accordance with IDOT procedures to document existing conditions, perform a drainage alternatives analysis, and design the proposed drainage systems for the Preferred Alternative. This includes preparation of an Existing Drainage Plan (EDP) and Proposed Drainage Plan (PDP). LCSMC and IDOT design criteria will be used. Revised rainfall depths from Bulletin 70 will be used.

**3.1 Memorandum.** STV will prepare a written narrative describing each aspect of the drainage investigations and design in accordance with IDOT procedures for an LDTM.

**3.2 Existing Drainage Plan.** Development of the EDP includes an evaluation of existing drainage conditions through a review of record roadway plans, maps, reports, and field review. Data collection as part of this task includes obtaining pertinent as-built plans, USGS maps, Soils maps, topographic maps, existing FEMA data/studies, and other pertinent data. Off-site and on-site drainage areas and existing drainage systems will be delineated on the base project mapping.

STV will coordinate with the Village of Beach Park, City of Waukegan, Waukegan Park District, LCDOT, LCSMC, and other agencies as needed regarding drainage patterns and concerns and sensitive drainage areas and/or outlets. Meetings with these agencies are included in the Meetings and Coordination section of this scope of services.

Based on a review of project area mapping, no BFE determination is anticipated to be required.

The EDP plan sheets will match the Preferred Alternative plan and profile sheet scale and limits.

**3.3 Proposed Drainage Plan.** Development of the PDP includes an evaluation of proposed drainage conditions for the Preferred Alternative. Closed drainage systems are anticipated to be used within the project limits, but open drainage using ditches and cross-road culverts will also be considered in the alternatives analysis. The draft PDP will be prepared before Public Meeting 2 and the final PDP will be prepared incorporating input from Public Meetings 2 and 3 (if necessary). One goal of the PDP will be to reduce or avoid property impacts wherever possible. The PDP will fully describe the proposed drainage concept and reflect drainage calculations for drainage system size, type, and location. Existing drainage outlets will be identified and evaluated for sensitivity to changes in flow rates, volumes, and/or water quality.

The anticipated additional impervious area added by this project is anticipated to require stormwater detention. This scope of services assumes four detention systems will be required. The most likely detention system type will be oversized storm sewers, but an

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alternatives analysis will be performed to determine the type of detention best suited for each outlet where it is needed.

Runoff volume reduction and water quality BMPs will be evaluated for incorporation throughout the project.

One potential floodplain impact with required compensatory storage is assumed in the Zone A floodplain south of York House Road in Bevier Park. Work associated with this floodplain impact includes identifying the volume of fill in the floodplain and designing a preliminary grading plan to provide compensatory storage. Hydraulic analysis of the floodplain is not anticipated – the floodplain limits will be determined by overlaying the FEMA floodplain limits on contour data.

The design of storm sewer lateral sizing, inlet spacing, small culverts, and other minor drainage systems will be performed during Phase II.

The PDP plan sheets will match the EDP plan sheets scale and limits.

#### **4.0 Other Design Efforts**

**4.1 Data Collection.** This task includes obtaining all pertinent data required to proceed with all facets of design development. Coordination will occur with LCDOT, LCSMC, the City of Waukegan, the Village of Beach Park, Waukegan Park District, and all other agencies necessary to obtain base data for the project area, including but not limited to the following:

- Record roadway and drainage plans.
- Recorded centerline and right-of-way plans for York House Road.
- Available traffic data.
- Available crash data.
- Available survey data and LiDAR data.
- Existing and proposed land use zoning maps.
- Soils & Geological information.
- Public/private utility plans (STV to coordinate with the LCDOT utility coordinator to obtain this information).
- USGS maps and Flood Insurance Rate Maps.
- Public Service routes including Bus, Mail, and Emergency Services.

#### **4.2 Environmental Studies and Memorandum.**

**4.2.1 Environmental Studies.** An evaluation of environmental impacts will be performed for this project to meet MFT requirements. STV will prepare the following documents for use in the environmental studies:

- **Aerial Exhibits.** These plans will show the extents of the environmental survey limits with aerial imagery. These sheets will be single plan 1"=200' scale 11" X 17" size.
- **Historical Photo Log.** STV will assemble historical building photo log. One field visit is anticipated as part of this task.

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- 4.2.2 Biological Analysis.** See separate scope of services from Huff & Huff. STV hours for this task are for coordination and review of subconsultant deliverables.
- 4.2.3 Special Waste Analysis.** See separate scope of services from Huff & Huff. STV hours for this task are for coordination and review of subconsultant deliverables.
- 4.2.4 Cultural Analysis.** Archeological review is not anticipated due to the highly urbanized nature of the project site and is not included in this scope of services. Section 4(f) coordination will occur if there are impacts to the park district property. This work will be completed by Huff & Huff as described in their separate scope of services. STV hours for this task are for coordination and review of subconsultant deliverables.
- 4.2.5 Environmental Memorandum.** STV will prepare a memorandum summarizing the results of the environmental studies and how the identified environmental resources were taken into account in the alternatives analysis and choosing the Preferred Alternative.

**4.3 Americans With Disabilities (ADA) Grading Analysis.** Grading plans (1"=5' scale at 11"x17" size) will be created showing ADA-compliant design for the following sidewalk ramp locations to ensure sufficient land acquisition in the vicinity of the ramps. Point labels and a table of points including the point label, station, offset distance, offset direction, and elevation will be included with each grading plan. Where feasible, two to four grading plans will be shown on each sheet.

- Seventeen ramps will be required for the Green Bay Road to Lewis Avenue segment. This includes nine existing ramps that will be evaluated for ADA compliance and may either remain in place or be replaced.
- Nineteen ramps will be required for the Lewis Avenue to Sheridan Road segment. This includes two existing ramps that will be evaluated for ADA compliance and may either remain in place or be replaced.

**4.4 Traffic Sequencing Memorandum.** STV will evaluate potential maintenance of traffic staging to construct the preferred alternative and prepare the following items. This scope of services assumes that the project will be constructed consecutively in two separate construction contracts instead of all at once. The first segment will be from Lewis Avenue to Sheridan Road. The second segment will be from Green Bay Road to Lewis Avenue.

- **Memorandum.** STV will write a narrative description of the construction staging concepts for the preferred alternative summarizing the decision-making process and the layout shown in the MOT typical sections and Stages of Construction Plan.
- **MOT Typical Sections.** For each stage of construction where IDOT/LCDOT traffic control standards will not be applicable, STV will develop MOT typical sections that depict the location of the travel lanes and work zone during that stage of construction.
- **Stages of Construction Plan.** The project is assumed to be constructed in the five stages listed below.

**York House Road Phase I Engineering**  
**Scope of Services**  
**STV Incorporated**  
**May 15, 2020**

**Pre-Stage (utilize IDOT/LCDOT standard details)**

- Clearing, grubbing, and tree removal.

**Stage 1**

- Roadway widening on north side of York House Road.

**Stage 2**

- Roadway widening on south side of York House Road.

**Stage 3 (utilize IDOT/LCDOT standard details)**

- Milling and resurfacing York House Road.

**Stage 4 (utilize IDOT/LCDOT standard details)**

- Install final pavement markings and signage.
- Landscaping and clean up.

These sheets will use the following settings:

- These sheets will be double plan 1"=40' scale at 11"x17" size.
- Six sheets will be included for the Green Bay Road to Lewis Avenue segment. The sheets will be formatted so that there is not a break at McAree Road and that the entire McAree Road intersection falls within the limits of a single sheet.
- Eight sheets will be included for the Lewis Avenue to Sheridan Road segment.

**4.5 Right-of-Way and Easement Memorandum.** STV will prepare a memorandum summarizing the nature of right-of-way and easement needs for each of the three alternatives considered and describe how these needs impacted the decision to recommend the Preferred Alternative. The memorandum will also include a table for each alternative listing each impacted property and the associated area for each type of land acquisition. The memorandum will not include estimated purchase costs for land acquisition. The alternatives analysis roll plots and the Preferred Alternative plan and profile sheets will be included as exhibits with this memorandum.

**4.6 Review Work by Subconsultants.** STV will perform an overview of the work being performed by the subconsultants and incorporate information into the project CADD files.

**4.6.1 Land surveying.** See the separate scope of services prepared by Sanchez & Associates for more information. STV hours are for coordination, review, and incorporating new survey data into the project CADD files.

**4.6.2 Traffic capacity and signals analysis.** See the separate scope of services prepared by Gandhi & Associates for more information. STV hours are for coordination and review of subconsultant deliverables.

**York House Road Phase I Engineering**  
**Scope of Services**  
**STV Incorporated**  
**May 15, 2020**

**4.6.3 Environmental.** See the separate scope of services provided by Huff & Huff for more information. STV hours for this task are for coordination and review of subconsultant deliverables.

**4.7 Cost Estimate.** STV will prepare concept level construction cost estimates for each of the three preliminary alternatives. The estimate for the Preferred Alternative will be updated after input from the final Public Meeting is incorporated into the design. Minor pay items will be estimated as percentages of the overall cost of the project or as part of a contingency.

**4.8 Pavement Design.** Per LCDOT request, STV will perform pavement analysis. LCDOT wants to compare the findings of STV pavement design with recommended pavement design determined using standard LCDOT pavement management recommendations. STV pavement design will be performed in accordance with IDOT BLRS Chapter 44. Conventional flexible pavement design per Section 44-3 will be used if the traffic factor (TF) is less than or equal to 0.50. If the TF is greater than 0.50, the pavement design will be performed in accordance with full-depth HMA pavement design per Section 44-4. Heavy vehicle percentages will be taken from the existing traffic counts and the counts that will be taken as part of the IDS at McAree Road. Pavement coring will be included; see separate scope of services prepared by Huff & Huff for more information.

**4.9 Record of Decision Memorandum.** STV will prepare a memorandum to serve as a comprehensive summary of the project development process including the public involvement process, key design constraints, the alternatives analysis and how the Preferred Alternative was chosen, drainage systems, and anticipated permitting. All of the studies, memorandums, and exhibits created for this project will be included on a flash drive or CD to accompany hardcopies of this memorandum.

**4.10 CAD Files.** STV will compile and submit to LCDOT all CAD files used to create the contract plans.

**5.0 Administration & QA/QC.**

**5.5 Administration.** STV will perform administration and project management activities related to maintaining project schedule and budget, as well as preparation of project progress reports and invoices.

**5.6 QA/QC.** STV will quality check contract deliverables at major milestones prior to submitting the deliverables to LCDOT.



**York House Road Phase I Engineering**  
**Scope of Services**  
**STV Incorporated**  
**May 15, 2020**

**Deliverables**

The following deliverables are anticipated for this project. All deliverables shall be completed according to the LCDOT Plan Preparation Guidelines as applicable.

1. Existing Condition Plans.
2. Concept Design Plans.
3. Traffic Sequencing Memorandum.
4. Right-of-Way and Easement Memorandum.
5. Location Drainage Technical Memorandum.
  - a. Existing Conditions (1<sup>st</sup> submittal)
  - b. Draft Proposed Conditions
  - c. Final Proposed Conditions
6. Record of Decision Memorandum.
7. Preliminary cost estimate.
8. Design Files.
9. Environmental Memorandum.

**Direct Costs**

The following direct costs are anticipated for this project:

1. Printing and shipping plans and memorandums to LCDOT.
2. Travel and printing miscellaneous exhibits and other documents for meetings and site visits.
3. Renting the Public Informational Meeting venue.
4. IDNR EcoCAT consultation fee.

**Assumptions**

The following assumptions were made when preparing this scope of services:

1. Plans will be prepared using Bentley Systems Microstation V8i Select Series 2 (SS2) and GEOPAK Select Series 4 (SS4) Open Roads modeling. The three-dimensional (3-D) model will be provided to the LCDOT when requested but will be provided for information only.
2. Environmental studies are included because it is a requirement for MFT funded projects.
3. No meetings with IDNR or IEPA will be required for project permitting.
4. Land acquisition negotiations and associated surveying services will occur during Phase II.
5. Plans will be prepared only in 11"x17" size.
6. LCDOT will perform all stakeholder coordination other than as listed above.
7. Additional traffic counts will not be required, with the exception of the counts listed in the Gandhi separate scope of services.
8. Crash analysis has already been considered in the LCDOT Scoping Report and additional crash analysis during Phase I will not be required.
9. For the proposed retaining wall:

**York House Road Phase I Engineering**  
**Scope of Services**  
**STV Incorporated**  
**May 15, 2020**

- a. TS&L plans will not be needed since the wall is assumed to be shorter than 7 feet from finished grade line to top of wall per IDOT Bureau of Bridges and Structures (BBS) requirements or 10 feet from bottom of footing to top of roadway.
- b. If a wall is warranted, this scope of services assumes a 100 feet long retaining wall with a barrier mounted on top of the wall. The maximum height from finished ground line at front face of wall to the top of the wall is assumed to be no more than 6 feet.
- c. Wall type is assumed to be cast-in-place concrete wall supported by a footing with steel H-piles.
- d. Aesthetic wall treatments, above and beyond the inclusion of LCDOT specifications for patterns typically applied to cast-in-place walls, for the retaining wall are not included in the scope of work.

## 1.0 Meetings & Coordination

	No. of Meetings	Hrs per Meeting	Total	Notes
<b>General Project Coordination</b>			39	0.5 hr per week for 18 months
<b>Sub Coordination Meetings</b>			36	
<b>Design Meetings</b>				
<i>Project KO Meeting</i>	1	8	8	2 STV employees will attend at LCDOT headquarters
<i>Concept Design</i>	1	8	8	2 STV employees will attend at LCDOT headquarters
<i>Lake County Stormwater Management Commission</i>	2	8	16	2 STV employees will attend
<i>USACE 404 Meeting</i>	1	8	8	2 STV employees will attend
<i>City of Waukegan</i>	2	8	16	2 STV employees will attend
<i>Village of Beach Park</i>	2	8	16	2 STV employees will attend
<i>Waukegan Park District</i>	1	8	8	2 STV employees will attend
<i>Waukegan School District</i>	1	8	8	2 STV employees will attend
<i>Waukegan Port District</i>	1	8	8	2 STV employees will attend
<i>FAA</i>	1	8	8	2 STV employees will attend
<i>IDOT Aeronautics</i>	1	8	8	2 STV employees will attend
<i>LCDOT Project Coordination Meetings</i>	18	2	36	2 STV employees will participate in monthly calls.
<i>Exhibit preparation for meetings</i>	32	1.5	48	
<b>Field Visits</b>	3	16	48	
<b>Public Meetings (3 mtgs)</b>				
<i>Notifications</i>	3	24	72	
<i>Exhibits</i>	3	24	72	
<i>Dry Run</i>	3	8	24	
<i>Meeting Venue &amp; Attendance</i>	3	30	90	
<i>Meeting Summary &amp; Comment Responses</i>	3	16	48	
<b>Utility Coordination</b>				
<i>Incorporate Existing Information</i>			16	
<i>Plan Reviews</i>			12	
<i>Conflict Resolution</i>			40	
<i>Meetings with utilities</i>	2	8	16	
<i>Exhibit preparation for meetings</i>			4	
<b>Meetings &amp; Coordination Totals</b>			<b>713</b>	

## 2.0 Alternate Geometric Studies

	No. of Sheets	Hrs per Sheet	Total	Notes
<b>Prelim Alternatives Development</b>				
Typical Sections	2	16	96	Number of sheets per alternative, 3 alternatives considered
Plan Geometry	26	4	312	Number of sheets per alternative, 3 alternatives considered. Presented on big roll plot.
Preliminary Profile	26	2	156	Number of sheets per alternative, 3 alternatives considered. Presented on big roll plot.
Cross Sections	441	3	1323	No. of Sheets is number of Sections (441). 3 Hours per sheet = 1 hour per alternative.
<b>Preferred Alternative Development</b>				
Plan and Profile	26	12	312	
<b>Intersection Design Study (McAree Road intersection)</b>			40	For geometric design. Traffic analysis & signals performed separately by Gandhi & Associates.
<b>Alt. Geometric Studies Totals</b>			<b>2239</b>	

### 3.0 Location Drainage Technical Memorandum (LDTM)

	No. of Sheets	Hrs per Sheet	Total	Notes
<b>Memorandum</b>				
<i>Identified Drainage Problems</i>			2	
<i>Identified Base Floodplains</i>			1	
<i>Major Drainage Features</i>			2	
<i>Design Criteria</i>			1	
<i>Outlet Evaluation</i>			4	
<i>Stormwater Detention</i>			2	
<i>Right-of-Way Analysis</i>			2	
<i>Drainage Alternatives</i>			8	
<i>Local and Other Agency Coordination</i>			2	
<i>Proposed Drainage Plan</i>			8	
<i>Water Quality / BMP</i>			2	
<i>Floodplain Encroachment Evaluation</i>			2	
<i>Evaluate Permit Requirements</i>			16	
<i>Comment Incorporation</i>			8	
<b>Existing Drainage Plan</b>				
<i>Existing Hydrology &amp; Hydraulics</i>			80	
<i>General Location Drainage Map</i>			8	
<i>Flood Insurance Rate Map (FIRM) Exhibit</i>			2	
<i>USDA Soils Maps Exhibits</i>			2	
<i>Existing Drainage Plans</i>	26	6	156	
<i>Comment Incorporation</i>			16	
<b>Proposed Drainage Plan</b>				
<i>Sensitive and Unsuitable Outlets Determination</i>			8	
<i>Proposed Hydrology</i>			80	
<i>Proposed Hydraulics</i>			120	
<i>Proposed Drainage Plans</i>	26	8	208	
<i>Right-of-Way Analysis</i>			8	
<i>Stormwater Detention Analysis</i>	4	40	160	4 detention systems
<i>Floodplain Impacts &amp; Compensatory Storage</i>	1	40	40	1 floodplain impact & compensatory storage location
<i>Water Quality BMPs</i>			40	
<i>Comment Incorporation</i>			24	
<i>Prepare 1st Submittal</i>			2	Existing Conditions
<i>Prepare 2nd Submittal</i>			2	Draft Proposed Conditions
<i>Prepare 3rd Submittal</i>			4	Final Proposed Conditions
<b>LDTM Totals</b>			<b>1020</b>	

#### 4.0 Other Design Efforts

			<b>Total</b>	<b>Notes</b>
<b>Data Collection</b>			24	
<b>Environmental Studies</b>				
<i>Aerial Exhibits</i>			40	5 sheets, 8 hours per sheet
<i>Historical Photo Log</i>			40	Time includes site visit
<i>Environmental Memorandum</i>			20	
<b>ADA Grading Analysis</b>				
<i>Green Bay Road to Lewis Avenue</i>	17	8	136	17 ramps
<i>Lewis Avenue to Sheridan Road</i>	19	8	152	19 ramps
<b>Traffic Sequencing Memo</b>				
Memorandum			16	
MOT Typical Sections				
<i>Green Bay Road to Lewis Avenue</i>	3	8	24	Number of sheets including all 3 stages
<i>Lewis Avenue to Sheridan Road</i>	3	8	24	Number of sheets including all 3 stages
Stages of Construction Plan				
<i>Green Bay Road to Lewis Avenue</i>	18	8	144	Number of sheets including all 3 stages
<i>Lewis Avenue to Sheridan Road</i>	24	8	192	Number of sheets including all 3 stages
<b>ROW and Easement Memo</b>			40	
<b>Review work by subconsultants</b>				
<i>Sanchez - Survey</i>			24	
<i>Gandhi - Traffic</i>			16	
<i>Huff &amp; Huff - Environmental &amp; Geotechnical</i>			30	
<b>Estimates</b>				
<i>Preliminary Alternatives</i>	3	40	120	3 alternatives considered
<i>Preferred Alternative</i>			40	
<b>Pavement Design</b>			40	IDOT BLRS Chapter 44
<b>Record of Decision Memorandum</b>			20	
<b>CAD File Submittal</b>			4	
<b>Other Design Efforts Totals</b>			<b>1146</b>	

**5.0 Administration and Management / QA/QC**

			<b>Total</b>	<b>Notes</b>
Adminstration & Management			205	4%
QA/QC			205	4%
<b>A&amp;M and QA/QC Totals</b>			<b>410</b>	

<b>Summary</b>	<b>Hours</b>
1.0 Meetings & Coordination	713
2.0 Alternate Geometric Studies	2251
3.0 Location Drainage Technical Memorandum (LDTM)	1020
4.0 Other Design Efforts	1146
5.0 Administration and Management / QA/QC	410
<b>Total</b>	<b>5540</b>



## PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME STV Incorporated  
 PRIME/SUPPLEMENT Prime  
 Prepared By STV Incorporated

DATE 05/14/20  
 PTB-ITEM# 000-000

CONTRACT TERM 18 MONTHS  
 START DATE 7/1/2020  
 RAISE DATE 1/1/2021  
 END DATE 12/31/2021

OVERHEAD RATE 140.05%  
 COMPLEXITY FACTOR 0  
 % OF RAISE 3%

### ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	7/1/2020	1/1/2021	6	33.33%
1	1/2/2021	1/1/2022	12	68.67%

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The total escalation = 2.00%

# PAYROLL RATES

**FIRM NAME** STV Incorporated **DATE** 05/14/20  
**PRIME/SUPPLEMENT** Prime  
**PTB-ITEM #** 000-000

**ESCALATION FACTOR** **2.00%**

*Note: Rates should be capped on the AVG 1 tab as necessary*

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Professional 8	\$124.82	\$127.32
Professional 7	\$88.75	\$90.53
Professional 6	\$64.79	\$66.09
Professional 5	\$58.86	\$60.04
Professional 4	\$56.77	\$57.91
Professional 3	\$43.73	\$44.60
Professional 2	\$40.91	\$41.73
Professional 1	\$31.57	\$32.20
Engineering Tech 5	\$56.54	\$57.67
Engineering Tech 4	\$39.74	\$40.53
Engineering Tech 1	\$19.00	\$19.38
Administrative Assistant 3	\$44.89	\$45.79
Administrative Assistant 2	\$23.01	\$23.47

## Subconsultants

FIRM NAME STV Incorporated  
PRIME/SUPPLEMENT Prime  
PTB-ITEM # 000-000

DATE 05/14/20

NAME	Direct Labor Total	Contribution to Prime Consultant
Sanchez & Associates	81,797.00	9,815.64
Huff & Huff	12,143.00	1,457.16
Gandhi & Associates	8,742.00	1,049.04
<b>Total</b>	<b>102,682.00</b>	<b>12,321.84</b>

**COST PLUS FIXED FEE  
COST ESTIMATE OF CONSULTANT SERVICES**

**FIRM** STV Incorporated  
**PTB-ITEM #** 000-000  
**PRIME/SUPPLEMENT** Prime

**OVERHEAD RATE** 140.05%  
**COMPLEXITY FACTOR** 0

**DATE** 05/14/20

DBE DROP BOX	ITEM	MANHOURS	PAYROLL	OVERHEAD & FRINGE BENF	DIRECT COSTS	FIXED FEE	SERVICES BY OTHERS	DBE TOTAL	TOTAL	% OF GRAND TOTAL
		(A)	(B)	(C)	(D)	(E)	(G)	(H)	(B-G)	
	1.0 - Meetings & Coord	713	34,530	48,360		12,776		-	95,666	8.22%
	2.0 - Geometric Studies	2239	105,086	147,173		38,882		-	291,141	25.03%
	3.0 - LDTM	1020	49,905	69,892		18,465		-	138,262	11.89%
	4.0 - Other Design	1146	55,240	77,364		20,439		-	153,043	13.16%
	5.0 - Admin & QA/QC	410	23,692	33,181		8,766		-	65,639	5.64%
	STV Direct Costs		-	-	32,470	-		-	32,470	2.79%
DBE	Subconsultant - Sanchez		-	-		-	306,399	306,399	306,399	26.34%
	Subconsultant - Huff		-	-		-	44,835	-	44,835	3.85%
DBE	Subconsultant - Gandhi		-	-		-	23,514	23,514	23,514	2.02%
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	<b>Subconsultant DL</b>					12,322			12,322	1.06%
	<b>TOTALS</b>	5528	268,453	375,970	32,470	111,650	374,748	329,913	1,163,291	100.00%

644,423

**DBE 28.36%**

### AVERAGE HOURLY PROJECT RATES

FIRM STV Incorporated  
 PTB-ITEM# 000-000  
 PRIME/SUPPLEMENT Prime

DATE 05/14/20

SHEET 1 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			1.0 - Meetings & Coord			2.0 - Geometric Studies			3.0 - LDTM			4.0 - Other Design			5.0 - Admin & QA/QC		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Professional 8	70.00	158.0	2.86%	2.00	40	5.61%	3.93	42	1.88%	1.31	20	1.96%	1.37	16	1.40%	0.98	40	9.76%	6.83
Professional 7	70.00	0.0																	
Professional 6	66.09	910.0	16.46%	10.88	100	14.03%	9.27	280	12.51%	8.26	200	19.61%	12.96	200	17.45%	11.53	130	31.71%	20.95
Professional 5	60.04	0.0																	
Professional 4	57.91	1,100.0	19.90%	11.52	100	14.03%	8.12	450	20.10%	11.64	200	19.61%	11.35	230	20.07%	11.62	120	29.27%	16.95
Professional 3	44.60	1,190.0	21.53%	9.60	190	26.65%	11.89	450	20.10%	8.96	200	19.61%	8.75	230	20.07%	8.95	120	29.27%	13.06
Professional 2	41.73	1,113.0	20.13%	8.40	183	25.67%	10.71	500	22.33%	9.32	200	19.61%	8.18	230	20.07%	8.37			
Professional 1	32.20	1,057.0	19.12%	6.16	100	14.03%	4.52	517	23.09%	7.44	200	19.61%	6.31	240	20.94%	6.74			
Engineering Tech 5	57.67	0.0																	
Engineering Tech 4	40.53	0.0																	
Engineering Tech 1	19.38	0.0																	
Administrative Assistant 3	45.79	0.0																	
Administrative Assistant 2	23.47	0.0																	
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<b>TOTALS</b>		5528.0	100%	\$48.56	713.0	100.00%	\$48.43	2239.0	100%	\$46.93	1020.0	100%	\$48.93	1146.0	100%	\$48.20	410.0	100%	\$57.79

COMPANY NAME: STV Incorporated  
 PTB NUMBER: 0  
 TODAY'S DATE: 5/15/2020

ITEM	ALLOWABLE	UTILIZE W.O. ONLY	QUANTITY J.S. ONLY	CONTRACT RATE	TOTAL
Per Diem (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum			\$0.00	\$0.00
Lodging (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost (Up to state rate maximum)			\$0.00	\$0.00
Lodging Taxes and Fees (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost			\$0.00	\$0.00
Air Fare	Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval			\$0.00	\$0.00
Vehicle Mileage (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum		200	\$0.575	\$115.00
Vehicle Owned or Leased	\$32.50/half day (4 hours or less) or \$65/full day			\$0.00	\$0.00
Vehicle Rental (including toll pass)	Actual cost (Up to \$80/day)		54	\$80.00	\$4,320.00
Tolls	Actual cost			\$0.00	\$0.00
Parking	Actual cost			\$0.00	\$0.00
Overtime	Premium portion (Submit supporting documentation)			\$0.00	\$0.00
Shift Differential	Actual cost (Based on firm's policy)			\$0.00	\$0.00
Overnight Delivery/Postage/Courier Service	Actual cost		20	\$50.00	\$1,000.00
Copies of Deliverables/Mylars (In-house)	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Copies of Deliverables/Mylars (Outside per page)	Actual cost		5,000	\$0.75	\$3,750.00
Project Specific Insurance	Actual cost			\$0.00	\$0.00
Monuments (Permanent)	Actual cost			\$0.00	\$0.00
Photo Processing	Actual cost			\$0.00	\$0.00
2-Way Radio (Survey or Phase III Only)	Actual cost			\$0.00	\$0.00
Telephone Usage (Traffic System Monitoring Only)	Actual cost			\$0.00	\$0.00
CADD	Actual cost (Max \$15/hour)			\$0.00	\$0.00
Web Site	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Advertisements	Actual cost		6	\$1,000.00	\$6,000.00
Public Meeting Facility Rental	Actual cost		3	\$1,000.00	\$3,000.00
Public Meeting Exhibits/Renderings & Equipment	Actual cost		3	\$3,000.00	\$9,000.00
Recording Fees	Actual cost			\$0.00	\$0.00
Transcriptions (specific to project)	Actual cost			\$0.00	\$0.00
Courthouse Fees	Actual cost			\$0.00	\$0.00
Storm Sewer Cleaning and Televising	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Traffic Control and Protection	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Aerial Photography and Mapping	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Utility Exploratory Trenching	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Testing of Soil Samples*	Actual cost			\$0.00	\$0.00
Lab Services*	Actual cost (Provide breakdown of each cost)			\$0.00	\$0.00
Equipment and/or Specialized Equipment Rental*	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Public Meeting Notification Letters & Mailing	Actual cost		3	\$1,000.00	\$3,000.00
IDNR EcoCAT fee	Actual cost		1	\$125.00	\$125.00
Gasoline for rental cars	Actual cost (assumed maximum \$4.00/gallon)		540	\$4.00	\$2,160.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
<b>TOTAL DIRECT COST</b>					<b>\$32,470.00</b>

\*If other allowable costs are needed and not listed, please add in the above spaces provided.

LEGEND

W.O. = Work Order  
 J.S. = Job Specific

**Sanchez & Associates**

**(including Wantman Group for SUE Level B)**







**Project: Plat of Highway – York House Road, N. Green Bay Road to N. Sheridan Road**

**Location:** Waukegan, Lake County, IL.  
**Job No:**

**Client:** Lake County DOT  
**Date:** May 13, 2020  
**Section:** 17-00143-15-R5

**PROJECT SUMMARY:**

**Project Description:** The project requires Professional Topographic Surveying Services in support of the Phase I design for York House Road, in Waukegan, Lake County, Illinois.

Note: Limits includes from 200 feet west of Green Bay Road to 200 feet east of N. Sheridan Road

**General Scope Information:**

- 1) All work will be performed IL State Plane Coordinates, East Zone, NAD 83-2011 Adjustment.
- 2) Vertical datum will be referenced to the North American Vertical datum (NAVD88)
- 3) **All Surveying shall be completed according to the Lake County Division of Transportation (LCDOT) Design Survey Procedures**

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**THE FOLLOWING TASKS WILL BE PERFORMED BY SANCHEZ AS PART OF THIS CONTRACT:**

**1. ADMINISTRATION**

- 1.1. Meetings with client. In-house meetings. Progress reports, scheduling, invoicing, etc.
- 1.2. Technical direction of staff.
- 1.3. Project management, coordination.

**2. DATA COMPILATION**

- 2.1. Obtain existing survey control along the project
- 2.2. Obtain record of underground utilities along the project.
- 2.3. Catalog and summarize data and transfer to working drawings. Provide necessary data to field crews.

**3. HORIZONTAL CONTROL**

Set horizontal control points at an approximate distance of 700 foot apart. Obtain coordinates by GPS-RTK Double Observation methods.  
Establish survey benchmarks at an approximate distance of 1000 feet apart. Set benchmark in stable objects

**4. TOPOGRAPHIC SURVEY**

- 4.1. All field and CAD surveying shall be completed according to the Lake County Division of Transportation (LCDOT) Design Survey Procedures.
- 4.2. Perform a full topographic survey in support of the design team, obtain cross sections at 50-foot intervals along the limits of the project. Limits of survey will be from 200 feet west of N. Green Bay Road to 200 feet east of N. Sheridan Road. Limits also include the survey of intersecting streets from 150 feet north to 150 feet south of York House Road. Limits of survey also include the survey of properties 25 feet behind existing right-of-way.



- 4.3. Locate stream 250 feet up-stream and down-stream from road. Provide opening of drainage structure under the road.
- 4.4. Locate edges of buildings, fences, sidewalks, curbs, shoulders, edges and crown of pavement
- 4.5. Locate all above ground utilities as light poles, signs, signals, manholes, catch basin, inlets etc.
- 4.6. Locate bushes, trees 6" in diameter and above, outlined hedge rows and landscape areas
- 4.7. Download, edit and adjust data.

## 5. ADA RAMPS SURVEYING

5.1 Perform ADA Ramp survey at all four quadrants of each intersection along the project. Existing ramps, where present, will be surveyed for use by the designers to determine if the existing ramp is ADA-compliant and can remain in place. Quadrants which do not currently have a ramp will be surveyed to the same level of detail for use by the designers if new ADA ramps have to be installed to provide non-motorized accommodations.

5.2 Survey shall be completed according to the Lake County Division of Transportation (LCDOT) Design Survey Procedures.

## 6. MANHOLE DETAILS

- 6.1. Locate all above ground utility structures and any evidence of underground utilities such as valves and paint marks.
- 6.2. Open storm, sanitary and water manholes and detail invert, size and type of pipes. Per OSHA regulations, survey personal will not enter any confined space. The details will be obtained from ground level.
- 6.3. Draw on topographic maps, above and below ground utility lines per underground records and located

## 7. SUBSURFACE UTILITY ENGINEERING (SUE) SERVICES

- 7.1. Request from client, municipality and/or Lake County Division of Transportation (LCDOT) all available records of underground utility lines located along the project corridor.
- 7.2. Delineate on ground all traceable underground utility lines and mark location with flags and/or paint marks.
- 7.3. Survey location of delineated underground marks and incorporate into topographic survey drawing all delineated utility lines.

Note: Items 7.1 and 7.2 of this task will be performed by our subconsultant Wantman Group Inc (WGI)

See attached detailed Scope of Work for SUE Services from WGI

## SANCHEZ WILL DELIVER TO CLIENT THE FOLLOWING ITEMS AS PART OF THIS WORK:

1. Base map drawing in Microstation format at 1"=40' scale
2. Copies of Field Books
3. Geopak "gpk" file containing survey points (Geopak format)
4. Geopak TIN file of existing ground
5. Manhole Invert Details in PDF format

## ITEMS TO BE SUPPLIED BY OTHERS:

### A. Property Access

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8604 W. Catalpa Ave, Suite 912  
Phone: 773-444-0144

Chicago, IL. 60656  
Fax: 847-232-3104



Obtain letter from LCDOT for access to private properties.  
Note: Only accessible private properties will be surveyed

**DIRECT COSTS**

A. Vehicle Daily Rate

## PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME Sanchez & Associates, P.C.  
 PRIME/SUPPLEMENT PRIME  
 Prepared By Gerardo P. Sanchez

DATE 04/09/20  
 PTB-ITEM# 000-000

CONTRACT TERM 12 MONTHS  
 START DATE 7/1/2020  
 RAISE DATE 1/1/2021  
 END DATE 6/30/2021

OVERHEAD RATE 104.59%  
 COMPLEXITY FACTOR 0  
 % OF RAISE 3%

### ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	7/1/2020	1/1/2021	6	50.00%
1	1/2/2021	7/1/2021	6	51.50%

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The total escalation = 1.50%

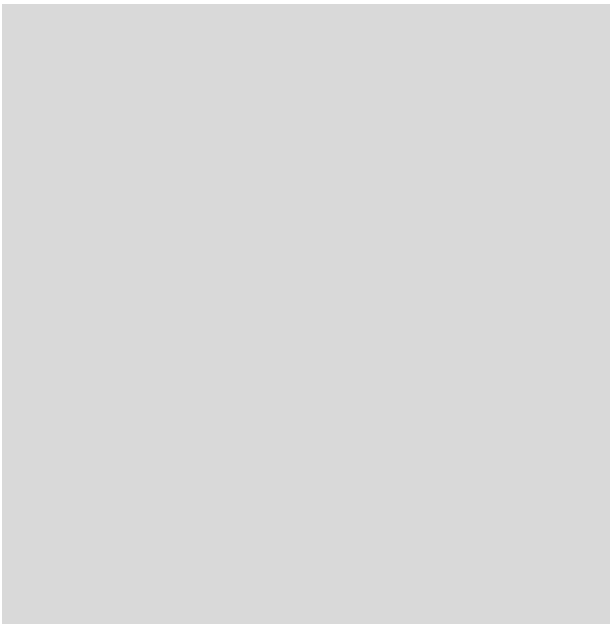
# PAYROLL RATES

FIRM NAME Sanchez & Associates, P DATE 04/09/20  
PRIME/SUPPLEMENT PRIME  
PTB-ITEM # 000-000

ESCALATION FACTOR 1.50%

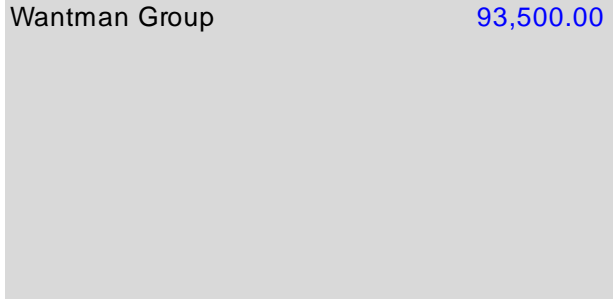
*Note: Rates should be capped on the AVG 1 tab as necessary*

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Principal PLS	\$70.00	\$71.05
Project Manager PLS	\$45.00	\$45.68
Survey Crew Chief III	\$35.00	\$35.53
Survey Inst. Person III	\$25.00	\$25.38
CAD Manager	\$35.00	\$35.53
CAD Technician III	\$31.00	\$31.47
Office Administration	\$26.00	\$26.39



## Subconsultants

FIRM NAME Sanchez & Associates, P.C. DATE  
PRIME/SUPPLEMENT PRIME  
PTB-ITEM # 000-000

NAME	Direct Labor Total	Contribution to Prime Consultant
Wantman Group	93,500.00	9,350.00
		
<b>Total</b>	<b>93,500.00</b>	<b>9,350.00</b>



## AVERAGE HOURLY PROJECT RATES

**FIRM** Sanchez & Associates, P.C.  
**PTB-ITEM#** 000-000  
**PRIME/SUPPLEMENT** PRIME

**DATE** 04/09/20

**SHEET** 1 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			1. Coordination/Topo			2. Survey Control			3. Topographic Survey			4. Survey ADA Ramps			5. Utility Survey		
		Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg
Principal PLS	71.05	52.0	2.07%	1.47	16	36.36%	25.84	0			0			0			0		
Project Manager PLS	45.68	164.0	6.53%	2.98	16	36.36%	16.61	12	7.59%	3.47	90	6.99%	3.19	23	4.84%	2.21	23	4.84%	2.21
Survey Crew Chief III	35.53	910.0	36.24%	12.87	0			64	40.51%	14.39	466	36.21%	12.86	190	40.00%	14.21	190	40.00%	14.21
Survey Inst. Person III	25.38	910.0	36.24%	9.20	0			64	40.51%	10.28	466	36.21%	9.19	190	40.00%	10.15	190	40.00%	10.15
CAD Manager	35.53	76.0	3.03%	1.08	0			0			24	1.86%	0.66	8	1.68%	0.60	8	1.68%	0.60
CAD Technician III	31.47	387.0	15.41%	4.85	0			18	11.39%	3.58	241	18.73%	5.89	64	13.47%	4.24	64	13.47%	4.24
Office Administration	26.39	12.0	0.48%	0.13	12	27.27%	7.20	0			0			0			0		
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<b>TOTALS</b>		2511.0	100%	\$32.58	44.0	100.00%	\$49.64	158.0	100%	\$31.72	1287.0	100%	\$31.80	475.0	100%	\$31.41	475.0	100%	\$31.41



### AVERAGE HOURLY PROJECT RATES

**FIRM** Sanchez & Associates, P.C.  
**PTB-ITEM#** 000-000  
**PRIME/SUPPLEMENT** PRIME

**DATE** 04/09/20  
**SHEET** 2 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	6. SUE Engineering			7. QA/QC Topo Survey											
		Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg
Principal PLS	71.05	0			36	50.00%	35.53									
Project Manager PLS	45.68	0			0											
Survey Crew Chief III	35.53	0			0											
Survey Inst. Person III	25.38	0			0											
CAD Manager	35.53	0			36	50.00%	17.76									
CAD Technician III	31.47	0			0											
Office Administration	26.39	0			0											
<b>TOTALS</b>		0.0	0%	\$0.00	72.0	100%	\$53.29	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00

COMPANY NAME: Sanchez & Associates, P.C.

PTB NUMBER: LCDOT York House Road

TODAY'S DATE: 4/9/2020

ITEM	ALLOWABLE	UTILIZE W.O. ONLY	QUANTITY J.S. ONLY	CONTRACT RATE	TOTAL
Per Diem (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum			\$0.00	\$0.00
Lodging (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost (Up to state rate maximum)			\$0.00	\$0.00
Lodging Taxes and Fees (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost			\$0.00	\$0.00
Air Fare	Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval			\$0.00	\$0.00
Vehicle Mileage (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum			\$0.000	\$0.00
Vehicle Owned or Leased	\$32.50/half day (4 hours or less) or \$65/full day		89	\$65.00	\$5,785.00
Vehicle Rental	Actual cost (Up to \$55/day)			\$0.00	\$0.00
Tolls	Actual cost			\$0.00	\$0.00
Parking	Actual cost			\$0.00	\$0.00
Overtime	Premium portion (Submit supporting documentation)			\$0.00	\$0.00
Shift Differential	Actual cost (Based on firm's policy)			\$0.00	\$0.00
Overnight Delivery/Postage/Courier Service	Actual cost (Submit supporting documentation)		3	\$50.00	\$150.00
Copies of Deliverables/Mylars (In-house)	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Copies of Deliverables/Mylars (Outside)	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Project Specific Insurance	Actual cost			\$0.00	\$0.00
Monuments (Permanent)	Actual cost			\$0.00	\$0.00
Photo Processing	Actual cost			\$0.00	\$0.00
2-Way Radio (Survey or Phase III Only)	Actual cost			\$0.00	\$0.00
Telephone Usage (Traffic System Monitoring Only)	Actual cost			\$0.00	\$0.00
CADD	Actual cost (Max \$15/hour)			\$0.00	\$0.00
Web Site	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Advertisements	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Public Meeting Facility Rental	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Public Meeting Exhibits/Renderings & Equipment	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Recording Fees	Actual cost			\$0.00	\$0.00
Transcriptions (specific to project)	Actual cost			\$0.00	\$0.00
Courthouse Fees	Actual cost			\$0.00	\$0.00
Storm Sewer Cleaning and Televising	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Traffic Control and Protection	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Aerial Photography and Mapping	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Utility Exploratory Trenching	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Testing of Soil Samples*	Actual cost			\$0.00	\$0.00
Lab Services*	Actual cost (Provide breakdown of each cost)			\$0.00	\$0.00
Equipment and/or Specialized Equipment Rental*	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
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				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
<b>TOTAL DIRECT COST</b>					<b>\$5,935.00</b>

\*If other allowable costs are needed and not listed, please add in the above spaces provided.

**LEGEND**

W.O. = Work Order

J.S. = Job Specific



May 12th, 2020

Gerardo P. Sanchez, P.L.S.  
Sanchez & Associates, P.C.  
8604 W. Catalpa Ave. Suite 912  
Chicago, IL 60656

VIA Email: [gpsanchez@sanchezsurveying.com](mailto:gpsanchez@sanchezsurveying.com)

**Re: Professional Subsurface Utility Engineering (SUE) Quality Level B Services along York House Road between N. Green Bay Road and N. Sheridan Road in Lake County Illinois.**

Dear Mr. Sanchez,

Wantman Group, Inc. (WGI) is pleased to provide this proposal to Sanchez & Associates, P.C. (CLIENT) for professional services on the above referenced project. Our scope of services and corresponding fees are detailed below.

### **PROJECT UNDERSTANDING**

WGI shall provide SUE Quality Level B services (utility designation) within the limits of the project provided by the client. Limits of subsurface utility survey will be from 200 feet west of N. Green Bay Road to 200 feet east of N. Sheridan Road. Limits also include the subsurface utility survey of intersecting streets from 150 feet north to 150 feet south of York House Road. Limits of subsurface utility survey will also include 25 feet into properties behind existing right-of-way.

### **BASIS OF SCOPE**

1. WGI proposes to provide ASCE 38-02 SUE Quality Level B (QLB) investigation within the project limits as referenced above on existing subsurface utilities including but not limited to gas, water, telephone, electric, catv, lighting, traffic signals and fiber optics for purposes of horizontal alignment.
2. Geophysical designating techniques, although highly reliable, are subject to outside interference with are beyond the control of WGI and may impede the effectiveness of subsurface utility investigations. Soil conditions, utility materials, size, depth and conductivity may prevent the location of some subsurface utilities. WGI utilizes state of the art equipment and methodology during all phases of utility investigations, but no guarantee is hereby expressed that all facilities will be detected.
3. CLIENT shall provide a letter of introduction to facilitate field operations.
4. Basic work zone safety includes, safety road signs and traffic cones.

### **EXCLUSIONS**

1. Utility records research is not included – to be provided by others.

2. Permits and permit fees, if needed, are not included and are the responsibility of the CLIENT.
3. Designation of storm and gravity sewers are not included.
4. Survey services and survey location of designated utilities (QLB) are not included and are to be provided by CLIENT.
5. Subsurface utility survey of commercial and residential services or secondary lines are not included.

## **SCOPE OF SUE SERVICES**

### Utility Designates (Quality Level B Designates)

1. WGI will provide 2 – 2-man SUE crews for 20 days to provide a ASCE 38-02 Quality Level B utility investigation. This is based on the assumption of approximately 80,000 LF of main/primary subsurface utilities to be designated.
2. WGI will provide a SUE Quality level B utility investigation in order to determine the horizontal location of existing buried facilities, including but not limited to gas, water, telephone, electric, catv, lighting, traffic signals and fiber optics.
3. Direct induction of tone-able subsurface utility facilities from surface accessible features utilizing various surface geophysical equipment including single and multi-frequency pipe and cable locators, metal detectors and Ground Penetrating Radar (GPR) sweep for non-conductive/non tone-able facilities.
4. Mark and label detected facilities with a water-based paint on pavement and flags on soft ground.
5. WGI will coordinate utility survey with CLIENT and will provide a Google Earth KMZ file showing all designated utilities along with a utility inventory spreadsheet listing the utilities and the total number of markings and flags to be surveyed per utility marked.
6. WGI anticipates a work schedule of Monday through Friday during normal operation hours (7:00am - 5:00pm).

## **DELIVERABLES**

1. WGI will provide a .kmz file of the QLB designated utilities as well as any field notes to Sanchez & Associates.
2. Electronic and hard copy 2D Plan Sheets depicting all utilities designated once utility survey file is made available from CLIENT.

**Total Lump Sum Fee**

**\$93,500 (Not to Exceed)**



We appreciate the opportunity to be of service to Sanchez & Associates, P.C. Upon acceptance of this proposal, please sign and return an executed copy to this office. Please note the Master Services Agreement and Provisions executed on December 28<sup>th</sup>, 2018 are an integral part of this contract, are hereby incorporated by reference, and are controlling unless both parties expressly waive them in writing prior to commencement of work. By executing this Proposal, Client expressly agrees to be bound by the Master Services Agreement Provisions.

Respectfully submitted,

WGI



Robert L. Clemens  
National SUE Services Manager



Eddie Gaytan  
Project Manager

CLIENT'S CORPORATE ATTESTATION: If signing this Proposal on behalf of a corporate entity, I hereby affirm that such entity is correctly identified above, and is legally valid, active, and duly licensed and authorized to conduct business in the State of Illinois. I also affirm that I am duly authorized and have legal capacity to execute this Proposal and bind the corporate entity.

AUTHORIZATION FOR CREDIT CHECK: By signing this Proposal, I hereby authorize WGI to conduct a credit check or obtain a credit report with respect to CLIENT (as identified in this Proposal) for purposes of WGI providing services to CLIENT.

Corporate  
Representative:

\_\_\_\_\_  
Name (Printed)

This Proposal accepted this \_\_\_ day of \_\_\_\_\_, 2020

By \_\_\_\_\_

Name (Signature)  
Sanchez &  
Associates





**Huff & Huff**





**Lake County Division of Transportation**

**York House Road Improvement Project**

**Section No.17-00143-15-RS:**

**Phase I**

**1. PROJECT UNDERSTANDING**

Lake County Division of Transportation (LCDOT) is proposing improvements to a 2.7-mile section of York House Road in Beach Park and Waukegan, IL. The project extends from Green Bay Road on the west (IL 131) to Sheridan Road (IL 137) on the east. The project area is primarily residential with churches, schools, and parks. There are also small commercial establishments located near the major intersections with three gas stations within the proposed project limits. Environmental services expected to be completed in the Phase I portion of the project includes wetland delineation, soils investigation, and environmental assessments (PESA). The Phase I study will be locally funded.

This Scope of Services also includes conducting a geotechnical exploration for pavement cores and roadway borings to be utilized in roadway design by the engineers. The documents you provided serve as the basis of our understanding of the proposed reconstruction project to prepare this scope of services.

**2. SCOPE OF SERVICES**

**Task 1: Wetland Delineation**

H&H understands that regulated wetlands are located within or adjacent to the Project Corridor. H&H proposes to conduct a wetland delineation for all areas within the Project Corridor in accordance with:

- The U. S. Army Corps of Engineers (USACE) Chicago District Regional Permit Program (RPP)
- The USACE *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*, (Supplemental Wetland Manual), and
- The October 13, 2015, edition of the Lake County Watershed Development Ordinance (WDO).

In preparing this proposal, H&H has made the following assumptions:

- A Preliminary Jurisdictional Determination (JD) fee, if required, is not included in this scope of work. This fee is based on the number of wetlands in the project, which will not be determined until most of this scope is completed. However, the Phase 1 scope includes time to meet with the USACE and Lake County Stormwater Management Commission (SMC) to perform the JD.
- Wetland permitting, mitigation design, plan preparation, monitoring, or management services are not included in this proposal.

## **A. Off-Site Record/Document Review**

The following records/documents will be reviewed prior to conducting field investigations. Soils information will be reviewed to determine the soil types encountered during the delineation procedures. The resources to be reviewed and used include:

- Aerial Photographs
- U.S. Geological Survey (USGS) Topographic Maps
- U.S. Fish and Wildlife Service (USFWS), National Wetland Inventory (NWI) Maps
- Lake County Wetland Inventory Maps
- Lake County ADID Wetland Maps
- Natural Resources Conservation Services (NRCS), Soil Survey of Lake County
- Hydric Soils of the United States
- Federal Emergency Management Agency (FEMA), Flood Insurance Rate Maps (FIRM), and
- USGS Hydrologic Atlases.

## **B. On-Site Investigation (Field Inventory)**

H&H proposes to conduct on-site investigations of all potential wetlands within the Project Corridor. Wetland delineation field investigation activities include on-site testing for the presence of hydric soils, hydrophytic vegetation, and sufficient hydrology. A floristic quality assessment (FQA) will be conducted for each identified wetland. Functions of wetlands based on field observations will also be evaluated during the on-site investigation. H&H proposes to flag all USACE jurisdictional WOUS wetland limits and all Lake County isolated wetland limits within the Project Corridor. The wetland perimeters and flags within the Project Corridor will be surveyed by H&H using a Global Positioning System (GPS) unit.

## **C. Wetland Report**

A Wetland Delineation Report will be prepared summarizing the findings of the desktop review and the on-site investigation. This report will be submitted to the Client as a PDF only. The shapefiles of the wetland boundaries as surveyed in the field will also be provided to the Client via email. Specific items to be included in the report are as follows:

- Map showing the location, limits, and wetland boundaries within the Project Corridor
- Aerial photography depicting the appropriate limits of the delineated wetlands
- USACE data sheets with FQAs, as required
- Color photos of the wetlands and the data points
- Written description of wetland functional classification
- Permitting summary, and
- Mitigation requirements and options, if necessary.

## **Task 2: Biological Clearances**

It is H&H's understanding that biological clearances may be obtained through the Illinois Department of Transportation (IDOT) for this project if an Environmental Survey Request (ESR) is submitted to IDOT. In the event that IDOT does not obtain biological clearances, coordination with the FWS will be conducted by H&H. Coordination with the FWS for endangered species review is completed by the project team. H&H will conduct a

project assessment to determine if impacts to federally listed species will occur. To conduct this review, H&H will conduct the FWS Section 7 Consultation and document all findings.

If directed, H&H will initiate IDNR coordination through the submittal of the Ecological Compliance Assessment Tool (EcoCAT), requesting information on project threatened or endangered species. This task includes fees associated with the submittal of an EcoCAT (\$125 for local government projects, plus taxes). These fees are included in the scope of services.

This scope does not include special surveys for threatened or endangered species as these typically require significant efforts in site investigations, such as trapping, overnight observations, stream investigations for fish and mussels, and habitat surveys. If the FWS or IDNR require additional surveys for listed species, a separate cost estimate will be prepared based on the type of species that are being investigated.

### **Task 3: Archeological Review**

It is H&H's understanding that historic and cultural clearances may be obtained through IDOT for this project if the ESR is submitted. In the event that IDOT does not obtain historic and cultural clearances, coordination with the Illinois SHPO will be conducted through the USACE permitting process. Direct coordination with the Illinois SHPO is not anticipated to be required. However, if directed by the Client or the USACE, H&H will provide the Illinois SHPO information in the form of a letter requesting a review of the project area. A Phase I archeological survey will not likely be required by the Illinois SHPO as the project area is largely developed. H&H will coordinate with Client to find a qualified firm if a prequalified Phase 1 archeologist is required for the project. A cost for a Phase 1 study is not included in this proposal as the need is undetermined until the Illinois SHPO and/or USACE responds. However, the amount of development in this area would likely preclude the need for such a study.

### **Task 4: Preliminary Environmental Site Assessment (PESA):**

H&H will prepare separate Preliminary Environmental Site Assessment for the Project Corridor. The process will follow general protocols associated with ASTM E1527-13, which is a standard environmental site assessment methodology and IDOT procedures. These protocols are consistent with the "Preliminary Site Assessment (PESA)" procedures outlined by the Illinois Department of Transportation (IDOT) in BDE #66-10A and the "Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of Transportation Highway Projects." No soil sampling is included in this task. Soil management and CCDD issues will be investigated during Phase 2 and is not included in this Phase I scope of services.

#### **A. Historical Research**

The historical land use/ownership records for sites in the vicinity of the Project Corridor will be developed from standard historical sources. Historical aerial photographs or historical maps, such as Sanborn Fire Insurance Maps, will be reviewed, as available. The review will identify land use over time and potential areas of environmental concern, such as areas of surface disturbance and outside storage.

#### **B. Site Evaluation**

Current environmental features and conditions of sites adjacent to the right-of-way/project areas will be evaluated. A site walkover of potential right-of-way/project areas designated for excavation and/or acquisition will be conducted for first-hand evaluation of current environmental conditions within the

project limits. All the features and conditions listed above will be investigated and, as appropriate, documented in photographs. The land-use and housekeeping practices of adjacent properties also will be evaluated in accordance with ASTM protocols.

#### C. Records Review

A records review will be conducted to assess potential environmental concerns within the study areas. The reviews will include a search of standard state and federal environmental record databases in accordance with the specifications of ASTM standards. The searches are based on the outline of the study areas.

Specifically, H&H will search each database to identify any potential sources requiring further investigation. As appropriate, Freedom of Information Act (FOIA) requests will be filed with the Illinois Environmental Protection Agency (IEPA) to obtain additional data pertaining to identified sites.

#### D. Report Preparation

A PESA report summarizing the results of the evaluation will be prepared for the project corridor. The following information will be included in these reports:

- a) The project location and description
- b) Historical uses of corridor.
- c) The area geology and hydrology.
- d) The environmental status of sites adjacent to the corridor regarding chemical use and storage, underground and aboveground storage tanks, solid waste, special waste, and hazardous waste, wastewater, and PCBs.
- e) An analysis of the site inspection.
- f) A summary of the findings regarding environmental concerns. This will include IDOT's BDE Manual Chapter 27-3, Special Waste Procedures, and identification of Potentially Impacted Properties (PIPs) per Subpart F, Section 1100, 35 IAC, related to Clean Construction or Demolition Debris management.

#### **Task 5: Section 4(f) Coordination**

Bevier Park and Henry Pfau Callahan Park (Waukegan BMX Track) are Waukegan Park District properties and are on the south side of existing Yorkhouse Road. The roadway improvements could require the use of Park District land at these two parks. It is anticipated that Section 4(f) coordination and de minimis documentation will be required. An early coordination meeting with the Waukegan Park District is recommended. This scope assumes that one Section 4(f) de minimis document will be required that covers both park district properties. It is assumed that the project will not adversely affect the activities, features, or attributes (such as playground equipment, sports fields and courts, shelters, tracks, etc.) qualifying the parks for protection under Section 4(f).

Maps on the Lake County Forest Preserves' website indicate that the Waukegan Savanna Forest Preserve is on the north and south side of Yorkhouse Road about 400 feet west of Green Bay Road and the project corridor. It is assumed that no use of land will be required from this site. If the use of land is required from this site an additional Section 4(f) de minimis document with Lake County Forest Preserves would be required.

A review of the database of Land and Water Conservation Act (LAWCON) funding indicated that the Waukegan Park District received \$1,768.80 in LAWCON funding for the "YORKHOUSE PARK ACQUISITION" in 1978. It is not

known if the LAWCON funding (Section 6(f)) was for either Bevier Park or Henry Pfau Callahan Park. According to the Waukegan Park District they also have a property called the Yorkhouse & Cashmore Property at 14845 West Yorkhouse Road. The Illinois Department of Natural Resources (IDNR) will be contacted to confirm if any LAWCON funding was used on the properties. The IDNR will also be contacted to confirm if any state funding such as Open Space Lands Acquisition and Development (OSLAD) has been applied to the sites. This scope does not include coordination with the National Park Service or finding replacement land, of equivalent usefulness and location, if land is converted to a non-recreational use that received LAWCON funding.

## **Task 6: Geotechnical Services:**

### **A. Subsurface Exploration Program**

H&H proposes to drill a total of 5 soil borings and core the pavement in those 5 locations. The soil borings will be drilled to depths of 10 feet below ground surface (bgs). Based on the proposed number and depth of the borings, the subsurface exploration program will result in approximately 50 lineal feet of drilling. The thickness of the existing asphalt and base course will also be measured in each boring. Client will be notified if conditions are encountered that would indicate deeper borings are recommended.

The borings will be advanced using hollow-stem augers (HSAs) and Standard Penetration Tests (SPTs) will be conducted at 2.5-foot increments in each boring. Based on the Site reconnaissance, the borings will be accessible with a truck-mounted drill rig. The borings will be backfilled with soil spoil and capped with concrete.

### **B. Classification and Laboratory Testing**

A geotechnical engineer will classify soil samples that are recovered from the subsurface explorations in general accordance with American Society for Testing and Materials (ASTM) D2488, *Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)*. Geotechnical laboratory tests will be performed on select soil samples to establish the moisture content, plasticity indices (Atterberg Limits) and grain size characteristics of the recovered soils.

### **C. Engineering Analyses and Memorandum Preparation**

H&H will prepare a Geotechnical Engineering Memorandum based on the subsurface conditions encountered at the borings and the results of the field and laboratory testing. The Geotechnical Engineering Memorandum will include:

- Descriptions of the pavement, soil, and groundwater conditions encountered in the borings.
- Unified Soil Classification System (USCS) soil classifications.
- A summary of the geotechnical field and laboratory test results.
- Borehole water levels observed during and after drilling (if encountered).
- Pavement subgrade preparation recommendations that may include soil removal and replacement or use of geotextiles/geogrids.
- Soil subgrade parameters and analysis for pavement design including a vertical subgrade modulus for rigid pavement design.
- Flexible and rigid pavement design recommendations for pavements, including base course type and thickness.
- Surface and subsurface drainage considerations; and

- Other general construction considerations based on the conditions encountered.

Our Geotechnical Engineering Memorandum will also include an exploration location plan, boring logs with soil classifications, laboratory test results and procedures used in sampling and laboratory testing.

**Task 7: Project Management**

Time under this task includes project administration and management activities that include cost and schedule tracking; coordination with Client on authorized activities; memo production and other in-house management activities.

**Task 8: QA/QC**

Time under this task includes Quality Assurance/Quality Control (QA/QC) time for the reports as described above.

## PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME Huff & Huff, Inc.  
 PRIME/SUPPLEMENT STV  
 Prepared By \_\_\_\_\_

DATE 05/13/20  
 PTB-ITEM# 0

CONTRACT TERM 12 MONTHS  
 START DATE 7/1/2020  
 RAISE DATE 3/1/2021  
 END DATE 6/30/2021

OVERHEAD RATE 174.01%  
 COMPLEXITY FACTOR 0  
 % OF RAISE 3%

### ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	7/1/2020	3/1/2021	8	66.67%
1	3/2/2021	7/1/2021	4	34.33%

---

The total escalation = 1.00%

**ESCALATION TAB**

1. BE SURE TO FILL IN "PREPARED BY".
2. A PTB NUMBER MUST BE ENTERED FOR THE FORM TO CALCULATE PROPERLY  
Once entered, the appropriate % of Raise will prefill & the escalation will calculate.

**RATES TAB**

1. NOT ALL OF OUR CLASSIFICATIONS WOULD FIT ON NEW FORM. THE CLASSIFICATIONS SHOWN BELOW MAY BE USED IF NEEDED: (swap with classification not needed)

Senior Principal	\$75.00
Sr. Geotechnical	\$64.80
Architect PM	\$40.19
Intern	

2. IF PTB IS PRIOR TO 185, THE MAXIMUM ALLOWABLE RATE MUST BE REDUCED TO \$70.00

**SUBS TAB**

1. BE SURE TO FILL IN SUBCONSULTANT INFORMATION OR WE WILL LOSE A PORTION OF FIXED FEE WE ARE ENTITLED TO.

**COST ESTIMATE TAB**

1. EACH DBE MUST BE ENTERED ON ITS OWN LINE WITH THE DROP BOX SELECTED IN COLUMN A AND ONLY THE TOTAL AMOUNT SHOWN IN COLUMN H. (Column J will prefill)



# PAYROLL RATES

**FIRM NAME** Huff & Huff, Inc. **DATE** 05/13/20  
**PRIME/SUPPLEMENT** STV  
**PTB-ITEM #** 0

**ESCALATION FACTOR** **1.00%**

*Note: Rates should be capped on the AVG 1 tab as necessary*

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Principal	\$72.80	\$73.53
Associate Principal II	\$75.00	\$75.75
Associate Principal I	\$62.63	\$63.26
Senior Geotechnical Consul	\$66.73	\$67.40
Senior Project Manager III	\$60.73	\$61.34
Senior Project Manager II	\$46.64	\$47.11
Senior Project Manager I	\$45.12	\$45.57
Senior Landscape Architect	\$52.74	\$53.27
Senior Planning PM	\$51.48	\$51.99
Senior Geologist PM	\$47.33	\$47.80
Senior Technical Specialist	\$46.14	\$46.60
Senior Scientist PM II	\$48.58	\$49.07
Senior Scientist PM I	\$45.62	\$46.08
Senior Technical Scientist	\$44.24	\$44.68
Technical Graphics Technici	\$23.34	\$23.57
Scientist PM II	\$43.85	\$44.29
Engineer PM I	\$38.50	\$38.89
Assistant PM Engineer I	\$35.13	\$35.48
Engineer I	\$31.88	\$32.20
Assistant PM Scientist	\$31.50	\$31.82
Scientist E2	\$24.62	\$24.87
Administrative Managers	\$42.04	\$42.46
Senior Administrative Assist	\$29.53	\$29.83



### Subconsultants

FIRM NAME Huff & Huff, Inc.  
PRIME/SUPPLEMENT STV  
PTB-ITEM # 0

DATE 05/13/20

NAME	Direct Labor Total	Contribution to Prime Consultant
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**Total** **0.00** **0.00**



## AVERAGE HOURLY PROJECT RATES

**FIRM**  
**PTB-ITEM#**  
**PRIME/SUPPLEMENT**

Huff & Huff, Inc.  
0  
STV

DATE 05/13/20

SHEET 1 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			Wetland Delineation			Bio Clearances			Archeological Review			PESA			Section 4(f) Coordination		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	70.00	0.0																	
Associate Principal II	70.00	0.0																	
Associate Principal I	63.26	12.0	3.90%	2.46				1	11.11%	7.03	1	12.50%	7.91	1	1.89%	1.19	4	3.08%	1.95
Senior Geotechnical Consultant	67.40	4.0	1.30%	0.88															
Senior Project Manager III	61.34	0.0																	
Senior Project Manager II	47.11	0.0																	
Senior Project Manager I	45.57	0.0																	
Senior Landscape Architect	53.27	0.0																	
Senior Planning PM	51.99	84.0	27.27%	14.18							4	50.00%	26.00				80	61.54%	32.00
Senior Geologist PM	47.80	12.0	3.90%	1.86										2	3.77%	1.80			
Senior Technical Specialist	46.60	4.0	1.30%	0.61													4	3.08%	1.43
Senior Scientist PM II	49.07	0.0																	
Senior Scientist PM I	46.08	0.0																	
Senior Technical Scientist	44.68	19.0	6.17%	2.76	10	20.41%	9.12	4	44.44%	19.86				2	3.77%	1.69			
Technical Graphics Technician	23.57	11.0	3.57%	0.84	6	12.24%	2.89							5	9.43%	2.22			
Scientist PM II	44.29	0.0																	
Engineer PM I	38.89	0.0																	
Assistant PM Engineer I	35.48	22.0	7.14%	2.53										10	18.87%	6.69			
Engineer I	32.20	60.0	19.48%	6.27	32	65.31%	21.03	4	44.44%	14.31	3	37.50%	12.07						
Assistant PM Scientist	31.82	16.0	5.19%	1.65										16	30.19%	9.60			
Scientist E2	24.87	56.0	18.18%	4.52										16	30.19%	7.51	40	30.77%	7.65
Administrative Managers	42.46	2.0	0.65%	0.28															
Senior Administrative Assistant	29.83	6.0	1.95%	0.58	1	2.04%	0.61							1	1.89%	0.56	2	1.54%	0.46
		0.0																	
		0.0																	
		0.0																	
		0.0																	
<b>TOTALS</b>		308.0	100%	\$39.42	49.0	100.00%	\$33.64	9.0	100%	\$41.20	8.0	100%	\$45.98	53.0	100%	\$31.28	130.0	100%	\$43.49

### AVERAGE HOURLY PROJECT RATES

**FIRM** Huff & Huff, Inc.  
**PTB-ITEM#** 0  
**PRIME/SUPPLEMENT** STV

**DATE** 05/13/20  
**SHEET** 2 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Geotechnical Services			Project Admin			QA/QC											
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg			
Principal	70.00																		
Associate Principal II	70.00																		
Associate Principal I	63.26				2	25.00%	15.81	3	33.33%	21.09									
Senior Geotechnical Consultant	67.40	4	9.52%	6.42															
Senior Project Manager III	61.34																		
Senior Project Manager II	47.11																		
Senior Project Manager I	45.57																		
Senior Landscape Architect	53.27																		
Senior Planning PM	51.99																		
Senior Geologist PM	47.80	5	11.90%	5.69	2	25.00%	11.95	3	33.33%	15.93									
Senior Technical Specialist	46.60																		
Senior Scientist PM II	49.07																		
Senior Scientist PM I	46.08																		
Senior Technical Scientist	44.68							3	33.33%	14.89									
Technical Graphics Technician	23.57																		
Scientist PM II	44.29																		
Engineer PM I	38.89																		
Assistant PM Engineer I	35.48	12	28.57%	10.14															
Engineer I	32.20	21	50.00%	16.10															
Assistant PM Scientist	31.82																		
Scientist E2	24.87																		
Administrative Managers	42.46				2	25.00%	10.62												
Senior Administrative Assistant	29.83				2	25.00%	7.46												
<b>TOTALS</b>		42.0	100%	\$38.35	8.0	100%	\$45.84	9.0	100%	\$51.91	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00

### AVERAGE HOURLY PROJECT RATES

**FIRM** Huff & Huff, Inc.  
**PTB-ITEM#** 0  
**PRIME/SUPPLEMENT** STV

**DATE** 05/13/20  
**SHEET** 3 **OF** 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES																		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg			
Principal	70.00																		
Associate Principal II	70.00																		
Associate Principal I	63.26																		
Senior Geotechnical Consul	67.40																		
Senior Project Manager III	61.34																		
Senior Project Manager II	47.11																		
Senior Project Manager I	45.57																		
Senior Landscape Architect	53.27																		
Senior Planning PM	51.99																		
Senior Geologist PM	47.80																		
Senior Technical Specialist	46.60																		
Senior Scientist PM II	49.07																		
Senior Scientist PM I	46.08																		
Senior Technical Scientist	44.68																		
Technical Graphics Technic	23.57																		
Scientist PM II	44.29																		
Engineer PM I	38.89																		
Assistant PM Engineer I	35.48																		
Engineer I	32.20																		
Assistant PM Scientist	31.82																		
Scientist E2	24.87																		
Administrative Managers	42.46																		
Senior Administrative Assist	29.83																		
<b>TOTALS</b>		0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00

### AVERAGE HOURLY PROJECT RATES

**FIRM** Huff & Huff, Inc.  
**PTB-ITEM#** 0  
**PRIME/SUPPLEMENT** STV

**DATE** 05/13/20  
**SHEET** 4 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES																		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg			
Principal	70.00																		
Associate Principal II	70.00																		
Associate Principal I	63.26																		
Senior Geotechnical Consul	67.40																		
Senior Project Manager III	61.34																		
Senior Project Manager II	47.11																		
Senior Project Manager I	45.57																		
Senior Landscape Architect	53.27																		
Senior Planning PM	51.99																		
Senior Geologist PM	47.80																		
Senior Technical Specialist	46.60																		
Senior Scientist PM II	49.07																		
Senior Scientist PM I	46.08																		
Senior Technical Scientist	44.68																		
Technical Graphics Technic	23.57																		
Scientist PM II	44.29																		
Engineer PM I	38.89																		
Assistant PM Engineer I	35.48																		
Engineer I	32.20																		
Assistant PM Scientist	31.82																		
Scientist E2	24.87																		
Administrative Managers	42.46																		
Senior Administrative Assist	29.83																		
<b>TOTALS</b>		0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00

## AVERAGE HOURLY PROJECT RATES

**FIRM** Huff & Huff, Inc.  
**PTB-ITEM#** 0  
**PRIME/SUPPLEMENT** STV

**DATE** 05/13/20  
**SHEET** 5 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES																		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg			
Principal	70.00																		
Associate Principal II	70.00																		
Associate Principal I	63.26																		
Senior Geotechnical Consul	67.40																		
Senior Project Manager III	61.34																		
Senior Project Manager II	47.11																		
Senior Project Manager I	45.57																		
Senior Landscape Architect	53.27																		
Senior Planning PM	51.99																		
Senior Geologist PM	47.80																		
Senior Technical Specialist	46.60																		
Senior Scientist PM II	49.07																		
Senior Scientist PM I	46.08																		
Senior Technical Scientist	44.68																		
Technical Graphics Technic	23.57																		
Scientist PM II	44.29																		
Engineer PM I	38.89																		
Assistant PM Engineer I	35.48																		
Engineer I	32.20																		
Assistant PM Scientist	31.82																		
Scientist E2	24.87																		
Administrative Managers	42.46																		
Senior Administrative Assist	29.83																		
<b>TOTALS</b>		0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00



**HUFF & HUFF, INC.**  
**SUMMARY OF IN-HOUSE DIRECT COSTS**  
 STV Yorkhouse Road

**OUTSIDE**

**Wetland Delineation**

Trips - Employee	120 miles	x	1 x	\$ 0.575	=	\$	69.00	
Tolls - Employee			8 x	\$ 1.50	=	\$	12.00	
Maps/Aerials			7 x	\$ 10.00	=	\$	70.00	
Federal Express			1 x	\$ 20.00	=	\$	20.00	
<b>Task Total</b>							<b>\$</b>	<b>171.00</b>

**Biological Clearances**

ECOCAT			1 x	\$ 125.00	=	\$	125.00	
<b>Task Total</b>							<b>\$</b>	<b>125.00</b>

**Archeological Review**

<b>Task Total</b>							<b>\$</b>	<b>-</b>
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**PESA**

Trips - Employee	120 miles	x	1 x	\$ 0.575	=	\$	69.00	
Tolls - Employee			8 x	\$ 1.50	=	\$	12.00	
Records Search			1 x	\$ 300.00	=	\$	300.00	
<u>database add ons</u>			1 x	\$ 300.00	=	\$	300.00	
<b>Task Total</b>							<b>\$</b>	<b>681.00</b>

**Section 4(f)**

Trips - Employee	120 miles	x	2 x	\$ 0.575	=	\$	138.00	
Tolls - Employee			6 x	\$ 1.50	=	\$	9.00	
Federal Express			1 x	\$ 20.00	=	\$	20.00	
<b>Task Total</b>							<b>\$</b>	<b>167.00</b>

**Geotechnical**

Trips - Employee	120 miles	x	2 x	\$ 0.575	=	\$	138.00	
Tolls - Employee			8 x	\$ 1.50	=	\$	12.00	
<b>Task Total</b>							<b>\$</b>	<b>150.00</b>

**Project Admin**

<b>Task Total</b>							<b>\$</b>	<b>-</b>
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**QA/QC**

<b>Task Total</b>							<b>\$</b>	<b>-</b>
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**GRAND TOTAL      \$    1,294.00**

**HUFF & HUFF, INC.**  
**SUMMARY OF SERVICES BY OTHERS**  
 STV Yorkhouse Road

**OUTSIDE**

<i><b>Wetland Delineation</b></i>					
	<b>Task Total</b>	<b>\$</b>		<b>-</b>	
<i><b>Biological Clearances</b></i>					
	<b>Task Total</b>	<b>\$</b>		<b>-</b>	
<i><b>Archeological Review</b></i>					
	<b>Task Total</b>	<b>\$</b>		<b>-</b>	
<i><b>PESA</b></i>					
	<b>Task Total</b>	<b>\$</b>		<b>-</b>	
<i><b>Section 4(f)</b></i>					
	<b>Task Total</b>	<b>\$</b>		<b>-</b>	
<i><b>Geotechnical</b></i>					
Driller (day)	1 x	\$ 2,600.00	=	\$ 2,600.00	
Lab	1 x	\$ 200.00	=	\$ 200.00	
Traffic Control	1 x	\$3,000	=	\$ 3,000.00	
		<b>Task Total</b>		<b>\$ 5,800.00</b>	
<i><b>Project Admin</b></i>					
	<b>Task Total</b>	<b>\$</b>		<b>-</b>	
<i><b>QA/QC</b></i>					
	<b>Task Total</b>	<b>\$</b>		<b>-</b>	
<b>GRAND TOTAL</b>				<b>\$</b>	<b>5,800.00</b>

**Gandhi & Associates**





**Project: York House Road – Green Bay Road to Sheridan Road**

**Scope of Work**

1. Intersection Design Study for York House Road at McAree Road Intersection.
  - a. Capacity Analyses using Highway Capacity Software of the version approved by and acceptable to LCDOT.
  - b. Left Turning Movement Analysis.
  - c. Include potential addition of pedestrian accommodations and relocating the signal pole in the southeast quadrant.
2. The scope of work also includes traffic counts for four (4) intersections (but only when needed). We will need two people to do the traffic count at this location from 6:30AM to 9:30AM, 11:00AM to 1:00PM, and 3:30PM to 6:30PM. Counts only can be done Tuesday, Wednesday, and Thursday. No traffic counts during a holiday week.
  - a. York House Rd. at McAree Rd.
  - b. York House Rd. at Green Bay Rd. (if needed)
  - c. York House Rd. at Lewis Ave. (if needed)
  - d. York House Rd. at Sheridan Rd. (if needed)

**Project:** York House Road – Green Bay Road to Sheridan Road

**Location:** York House Rd. @ McAree Rd. York House Rd. @ Green Bay Rd., York House Rd. @ Lewis Ave., and York House Rd. @ Sheridan Rd.

**Manual Traffic Counts (Per Intersection)**

3 hrs Count AM  
1 hr Transportation PM  
2 hrs Midday Count  
3 hrs Count PM  
1 hr Transportation PM  
**10 hrs Total per Intersection/Person**

**4 Regular Intersections**

4 Intersections x 2 person/Intersection x 10 hrs/Intersection  
= **80 hrs**

**Downloading Time**

2 hrs/Intersection x 4 Intersections = **8 hrs**

**Administrative and Scheduling Time**

1 hr/Intersection x 4 Intersections = **4 hrs**

**TOTAL HRS.** = 60 hrs + 6 hrs + 3 hrs = **92 hrs**

**Vehicles**

1 vehicle x \$65/day/vehicle x 4 intersections for vehicle = \$260.00

**TOTAL EXPENSES** = **\$260.00**

**PROJECT: York House Road – Green Bay Road to Sheridan Road**  
**CONSULTANT: GANDHI AND ASSOCIATES, INC**

<b>ESTIMATE OF MAN-HOURS</b>		
<b>SHEET/ACTIVITY</b>	<b>NO. OF SHEETS</b>	<b>TOTAL</b>
<b><u>IDS-York House at McAree Road</u></b>		
Capacity Analyses	-	24
Preliminary Design	-	60
Pre-Final Design	-	24
Final Design	-	12
<b><u>General</u></b>		
Meetings and Coordination	-	12
Preliminary Submittal	-	4
Prefinal Submittal	-	3
Final Submittal	-	3
<b><u>Traffic Counts</u></b>		
Traffic Counts for four (4) Intersections		
1. York House Rd at McAree Rd	-	23
2. York House Rd at Green Bay Rd (if needed)	-	23
3. York House Rd at Lewis Ave (if needed)	-	23
4. York House Rd at Sheridan Rd (if needed)	-	23
<b>TOTALS</b>		<b>234</b>

## PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME Gandhi and Associates, Inc.  
 PRIME/SUPPLEMENT Prime  
 Prepared By Myra Recinto

DATE 04/09/20  
 PTB-ITEM# 0

CONTRACT TERM 12 MONTHS  
 START DATE 7/1/2020  
 RAISE DATE 1/1/2021

OVERHEAD RATE 129.00%  
 COMPLEXITY FACTOR 0  
 % OF RAISE 3%

END DATE 6/30/2021

### ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	7/1/2020	1/1/2021	6	50.00%
1	1/2/2021	7/1/2021	6	51.50%

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The total escalation = 1.50%



# PAYROLL RATES

FIRM NAME Gandhi and Associates, DATE 04/09/20  
 PRIME/SUPPLEMENT Prime  
 PTB-ITEM # 0

ESCALATION FACTOR 1.50%

*Note: Rates should be capped on the AVG 1 tab as necessary*

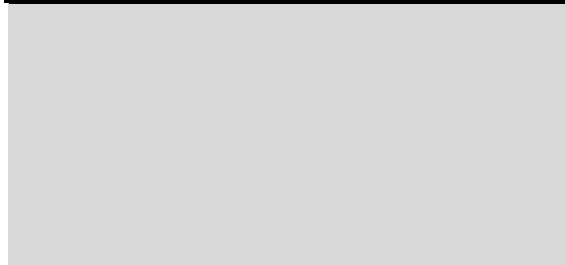
CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Principal	\$70.00	\$70.00
Project Manager	\$65.00	\$65.98
Project Engineer	\$52.00	\$52.78
Senior Engineer	\$46.00	\$46.69
Engineer	\$34.00	\$34.51
CADD/Designer	\$31.50	\$31.97
Field Technicians	\$27.75	\$28.17

### Subconsultants

FIRM NAME Gandhi and Associates, Inc.  
PRIME/SUPPLEMENT Prime  
PTB-ITEM # 0

DATE 04/09/20

NAME	Direct Labor Total	Contribution to Prime Consultant
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**Total**

**0.00**

**0.00**

## COST PLUS FIXED FEE COST ESTIMATE OF CONSULTANT SERVICES

Bureau of Design and Environment  
Prepared By: Consultant

FIRM Gandhi and Associates, Inc.

DATE 04/09/20

PTB-ITEM # 0

OVERHEAD RATE 129.00%

PRIME/SUPPLEMENT Prime

COMPLEXITY FACTOR 0

DBE DROP BOX	ITEM	MANHOURS	PAYROLL	OVERHEAD & FRINGE BENF	DIRECT COSTS (D)	FIXED FEE (E)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
		(A)	(B)	( C )					(H)	(B-G)
DBE	Intersection Design Study (IDS)	142	5,949	7,674		2,201		15,824	15,824	67.30%
DBE	Traffic Counts (4 Intersections)	92	2,793	3,603	260	1,034		7,690	7,690	32.70%
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Subconsultant DL						0				
<b>TOTALS</b>		234	8,742	11,277	260	3,235	-	23,514	23,514	100.00%

20,019

**DBE 100.00%**

### AVERAGE HOURLY PROJECT RATES

FIRM Gandhi and Associates, Inc.  
 PTB-ITEM# 0  
 PRIME/SUPPLEMENT Prime

DATE 04/09/20

SHEET 1 OF 1

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			Intersection Design Study (IDS)			Traffic Counts (4 Intersections)								
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	70.00	0.0														
Project Manager	65.98	19.0	8.12%	5.36	14	9.86%	6.50	4	4.35%	2.87						
Project Engineer	52.78	30.0	12.82%	6.77	22	15.49%	8.18									
Senior Engineer	46.69	35.0	14.96%	6.98	24	16.90%	7.89									
Engineer	34.51	60.0	25.64%	8.85	48	33.80%	11.67	8	8.70%	3.00						
CADD/Designer	31.97	10.0	4.27%	1.37	34	23.94%	7.66									
Field Technicians	28.17	80.0	34.19%	9.63				80	86.96%	24.49						
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<b>TOTALS</b>		234.0	100%	\$38.95	142.0	100.00%	\$41.89	92.0	100%	\$30.36	0.0	0%	\$0.00	0.0	0%	\$0.00