



Agreement For	Agreement Type
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PE	Original

LOCAL PUBLIC AGENCY

Local Public Agency	County	Section Number	Job Number
Lake County Division of Transportation	Lake	23-00177-03-ES	
Project Number	Contact Name	Phone Number	Email
	Mr. Tom Somodji	(847) 377-7485	

SECTION PROVISIONS

Local Street/Road Name	Key Route	Length	Structure Number
Darrell Road	3702		
Location Termini			Add Location
At Roberts Road (Key Route 3705)			Remove Location

Project Description

Feasibility Study for intersection safety and operation improvement at Darrell Road/Roberts Road in Port Barrington.

Engineering Funding	<input checked="" type="checkbox"/> MFT/TBP	<input type="checkbox"/> State	<input type="checkbox"/> Other	
Anticipated Construction Funding	<input type="checkbox"/> Federal	<input type="checkbox"/> MFT/TBP	<input type="checkbox"/> State	<input type="checkbox"/> Other

AGREEMENT FOR

☒ Phase I - Preliminary Engineering Feasibility Study ☐ Phase II - Design Engineering

CONSULTANT

Prime Consultant (Firm) Name	Contact Name	Phone Number	Email
Civiltech Engineering, Inc.	James R. Tibble, P.E.	(630) 735-3949	
Address	City	State	Zip Code
Two Pierce Place, Suite 1400	Itasca	IL	60143

THIS AGREEMENT IS MADE between the above Local Public Agency (LPA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the improvement of the above SECTION. Project funding allotted to the LPA 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.

Since the services contemplated under the AGREEMENT are professional in nature, it is understood that the ENGINEER, acting as an individual, partnership, firm or legal entity, qualifies for professional status and will be governed by professional ethics in its relationship to the LPA and the DEPARTMENT. The LPA acknowledges the professional and ethical status of the ENGINEER by entering into an AGREEMENT on the basis of its qualifications and experience and determining its compensation by mutually satisfactory negotiations.

WHEREVER IN THIS AGREEMENT or attached exhibits the following terms are used, they shall be interpreted to mean:

Regional Engineer	Deputy Director, Office of Highways Project Implementation, Regional Engineer, Department of Transportation
Resident Construction Supervisor	Authorized representative of the LPA in immediate charge of the engineering details of the construction PROJECT
In Responsible Charge Contractor	A full time LPA employee authorized to administer inherently governmental PROJECT activities Company or Companies to which the construction contract was awarded

AGREEMENT EXHIBITS

The following EXHIBITS are attached hereto and made a part of hereof this AGREEMENT:

- ☒ EXHIBIT A: Scope of Services
- ☒ EXHIBIT B: Project Schedule
- ☒ EXHIBIT C: Qualification Based Selection (QBS) Checklist
- ☒ EXHIBIT D: Cost Estimate of Consultant Services
- ☐ EXHIBIT ____ : Direct Costs Check Sheet (attach BDE 436 when using Lump Sum on Specific Rate Compensation)
- ☒ Exhibit E: Workhour Estimate
- ☒ Exhibit F: Direct Costs and Subconsultant Services
- ☒ Exhibit G: Subconsultant Proposal

I. THE ENGINEER AGREES,

1. To perform or be responsible for the performance of the Scope of Services presented in EXHIBIT A for the LPA in connection with the proposed improvements herein before described.
2. The Classifications of the employees used in the work shall be consistent with the employee classifications and estimated staff hours. If higher-salaried personnel of the firm, including the Principal Engineer, perform services that are to be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the payroll rate for the work performed.
3. That the ENGINEER shall be responsible for the accuracy of the work and shall promptly make necessary revisions or corrections required as a result of the ENGINEER'S error, omissions or negligent acts without additional compensation. Acceptance of work by the LPA or DEPARTMENT will not relieve the ENGINEER of the responsibility to make subsequent correction of any such errors or omissions or the responsibility for clarifying ambiguities.
4. That the ENGINEER will comply with applicable Federal laws and regulations, State of Illinois Statutes, and the local laws or ordinances of the LPA.
5. To pay its subconsultants for satisfactory performance no later than 30 days from receipt of each payment from the LPA.
6. To invoice the LPA, The ENGINEER shall submit all invoices to the LPA within three months of the completion of the work called for in the AGREEMENT or any subsequent Amendment or Supplement.
7. The ENGINEER or subconsultant shall not discriminate on the basis of race, color, national origin or sex in the performance of this AGREEMENT. The ENGINEER shall carry out applicable requirements of 49 CFR part 26 in the administration of US Department of Transportation (US DOT) assisted contract. Failure by the Engineer to carry out these requirements is a material breach of this AGREEMENT, which may result in the termination of this AGREEMENT or such other remedy as the LPA deems appropriate.
8. That none of the services to be furnished by the ENGINEER shall be sublet, assigned or transferred to any other party or parties without written consent of the LPA. The consent to sublet, assign or otherwise transfer any portion of the services to be furnished by the ENGINEER shall be construed to relieve the ENGINEER of any responsibility for the fulfillment of this AGREEMENT.
9. For Preliminary Engineering Contracts:
 - (a) To attend meetings and visit the site of the proposed improvement when requested to do so by representatives of the LPA or the DEPARTMENT, as defined in Exhibit A (Scope of Services).
 - (b) That all plans and other documents furnished by the ENGINEER pursuant to the AGREEMENT will be endorsed by the ENGINEER and affixed the ENGINEER's professional seal when such seal is required by law. Such endorsements must be made by a person, duly licensed or registered in the appropriate category by the Department of Professional Regulation of the State of Illinois. It will be the ENGINEER's responsibility to affix the proper seal as required by the Bureau of Local Roads and Streets manual published by the DEPARTMENT.
 - (c) That the ENGINEER is qualified technically and is thoroughly conversant with the design standards and policies applicable for the PROJECT; and that the ENGINEER has sufficient properly trained, organized and experienced personnel to perform the services enumerated in Exhibit A (Scope of Services).
10. That the engineering services shall include all equipment, instruments, supplies, transportation and personnel required to perform the duties of the ENGINEER in connection with this AGREEMENT (See DIRECT COST tab in BLR 05513 or BLR 05514).

II. THE LPA AGREES,

1. To certify by execution of this AGREEMENT that the selection of the ENGINEER was performed in accordance with the Professional Services Selection Act (50 ILCS 510) (Exhibit C).
2. To furnish the ENGINEER all presently available survey data, plans, specifications, and project information.
3. To pay the ENGINEER:
 - (a) For progressive payments - Upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LPA, monthly payments for the work performed shall be due and payable to the ENGINEER, such payments to be equal to the value of the partially completed work minus all previous partial payments made to the ENGINEER.
 - (b) Final payment - Upon approval of the work by the LPA but not later than 60 days after the work is completed and reports have been made and accepted by the LPA and DEPARTMENT a sum of money equal to the basic fee as determined in this AGREEMENT less the total of the amount of partial payments previously paid to the ENGINEER

shall be due and payable to the ENGINEER.

(c) For Non-Federal County Projects - (605 ILCS 5/5-409)

- (1) For progressive payments - Upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LPA, monthly payments for the work performed shall be due and payable to the ENGINEER. Such payments to be equal to the value of the partially completed work in all previous partial payments made to the ENGINEER.
- (2) Final payment - Upon approval of the work by the LPA but not later than 60 days after the work is completed and reports have been made and accepted by the LPA and STATE, a sum of money equal to the basic fee as determined in the AGREEMENT less the total of the amount of partial payments previously paid to the ENGINEER shall be due and payable to the ENGINEER.

4. To pay the ENGINEER as compensation for all services rendered in accordance with the AGREEMENT on the basis of the following compensation method as discussed in 5-5.10 of the BLR Manual.

Method of Compensation:

☐ Percent

☐ Lump Sum

☒ Specific Rate Direct Labor multiplier = 2.7

☐ Cost plus Fixed Fee:

Total Compensation = DL + DC + OH + FF

Where:

DL is the total Direct Labor,

DC is the total Direct Cost,

OH is the firm's overhead rate applied to their DL and

FF is the Fixed Fee.

Where FF = (0.33 + R) DL + %SubDL, where R is the advertised Complexity Factor and %SubDL is 10% profit allowed on the direct labor of the subconsultants.

The Fixed Fee cannot exceed 15% of the DL + OH.

5. The recipient shall not discriminate on the basis of race, color, national origin or sex in the award and performance of any US DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR part 26. The recipient shall take all necessary and reasonable steps under 49 CFR part 26 to ensure nondiscrimination in the award and administration of US DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR part 26 and as approved by US DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as violation of this AGREEMENT. Upon notification to the recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C 3801 et seq.).

III. IT IS MUTUALLY AGREED,

1. To maintain, for a minimum of 3 years after the completion of the contract, adequate books, records and supporting documents to verify the amount, recipients and uses of all disbursements of funds passing in conjunction with the contract; the contract and all books, records and supporting documents related to the contract shall be available for review and audit by the Auditor General, and the DEPARTMENT; the Federal Highways Administration (FHWA) or any authorized representative of the federal government, and to provide full access to all relevant materials. Failure to maintain the books, records and supporting documents required by this section shall establish a presumption in favor of the DEPARTMENT for the recovery of any funds paid by the DEPARTMENT under the contract for which adequate books, records and supporting documentation are not available to support their purported disbursement.
2. That the ENGINEER shall be responsible for any all damages to property or persons out of an error, omission and/or negligent act in the prosecution of the ENGINEER's work and shall indemnify and save harmless the LPA, the DEPARTMENT, and their officers, agents and employees from all suits, claims, actions or damages liabilities, costs or damages of any nature whatsoever resulting there from. These indemnities shall not be limited by the listing of any insurance policy.

The LPA will notify the ENGINEER of any error or omission believed by the LPA to be caused by the negligence of the ENGINEER as soon as practicable after the discovery. The LPA reserves the right to take immediate action to remedy any error or omission if notification is not successful; if the ENGINEER fails to reply to a notification; or if the conditions created by the error or omission are in need of urgent correction to avoid accumulation of additional construction costs or damages to property and reasonable notice is not practicable.
3. This AGREEMENT may be terminated by the LPA 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 LPA all drawings, plats, surveys, reports, permits, agreements, soils and foundation analysis, provisions, specifications, partial and completed estimates and data, if any from soil survey and subsurface investigation with the understanding that all such materials becomes the property of the LPA. The LPA will be responsible for reimbursement of all eligible expenses incurred under the terms of this AGREEMENT up to the date of the written notice of termination.

4. In the event that the DEPARTMENT stops payment to the LPA, the LPA may suspend work on the project. If this agreement is suspended by the LPA for more than thirty (30) calendar days, consecutive or in aggregate, over the term of this AGREEMENT, the ENGINEER shall be compensated for all services performed and reimbursable expenses incurred prior to receipt of notice of suspension. In addition, upon the resumption of services the LPA shall compensate the ENGINEER, for expenses incurred as a result of the suspension and resumption of its services, and the ENGINEER's schedule and fees for the remainder of the project shall be equitably adjusted.
5. This AGREEMENT shall continue as an open contract and the obligations created herein shall remain in full force and effect until the completion of construction of any phase of professional services performed by others based upon the service provided herein. All obligations of the ENGINEER accepted under this AGREEMENT shall cease if construction or subsequent professional services are not commenced within 5 years after final payment by the LPA.
6. That the ENGINEER shall be responsible for any and all damages to property or persons arising out of an error, omission and/or negligent act in the prosecution of the ENGINEER's work and shall indemnify and have harmless the LPA, the DEPARTMENT, and their officers, employees from all suits, claims, actions or damages liabilities, costs or damages of any nature whatsoever resulting there from. These indemnities shall not be limited by the listing of any insurance policy.
7. The ENGINEER and LPA certify that their respective firm or agency:
 - (a) has not employed or retained for commission, percentage, brokerage, contingent fee or other considerations, any firm or person (other than a bona fide employee working solely for the LPA or the ENGINEER) to solicit or secure this AGREEMENT,
 - (b) has not agreed, as an express or implied condition for obtaining this AGREEMENT, to employ or retain the services of any firm or person in connection with carrying out the AGREEMENT or
 - (c) has not paid, or agreed to pay any firm, organization or person (other than a bona fide employee working solely for the LPA or the ENGINEER) any fee, contribution, donation or consideration of any kind for, or in connection with, procuring or carrying out the AGREEMENT.
 - (d) that neither the ENGINEER nor the LPA is/are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency,
 - (e) has not within a three-year period preceding the AGREEMENT been convicted of or had a civil judgment rendered against them for commission of fraud or criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or local) transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property.
 - (f) are not presently indicated for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph and
 - (g) has not within a three-year period preceding this AGREEMENT had one or more public transaction (Federal, State, local) terminated for cause or default.

Where the ENGINEER or LPA is unable to certify to any of the above statements in this clarification, an explanation shall be attached to this AGREEMENT.

8. In the event of delays due to unforeseeable causes beyond the control of and without fault or negligence of the ENGINEER no claim for damages shall be made by either party. Termination of the AGREEMENT or adjustment of the fee for the remaining services may be requested by either party if the overall delay from the unforeseen causes prevents completion of the work within six months after the specified completion date. Examples of unforeseen causes included but are not limited to: acts of God or a public enemy; acts of the LPA, DEPARTMENT, or other approving party not resulting from the ENGINEER's unacceptable services; fire; strikes; and floods.

If delays occur due to any cause preventing compliance with the PROJECT SCHEDULE, the ENGINEER shall apply in writing to the LPA for an extension of time. If approved, the PROJECT SCHEDULE shall be revised accordingly.

9. This certification is required by the Drug Free Workplace Act (30 ILCS 580). The Drug Free Workplace Act requires that no grantee or contractor shall receive a grant or be considered for the purpose of being awarded a contract for the procurement of any property or service from the DEPARTMENT unless that grantee or contractor will provide a drug free workplace. False certification or violation of the certification may result in sanctions including, but not limited to suspension of contract on grant payments, termination of a contract or grant and debarment of the contracting or grant opportunities with the DEPARTMENT for at least one (1) year but not more than (5) years.

For the purpose of this certification, "grantee" or "Contractor" means a corporation, partnership or an entity with twenty-five (25) or more employees at the time of issuing the grant or a department, division or other unit thereof, directly responsible for the specific performance under contract or grant of \$5,000 or more from the DEPARTMENT, as defined the Act.

The contractor/grantee certifies and agrees that it will provide a drug free workplace by:

- (a) Publishing a statement:
 - (1) Notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance, including cannabis, is prohibited in the grantee's or contractor's workplace.
 - (2) Specifying actions that will be taken against employees for violations of such prohibition.
 - (3) Notifying the employee that, as a condition of employment on such contract or grant, the employee will:
 - (a) abide by the terms of the statement; and
 - (b) notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than (5) days after such conviction.
- (b) Establishing a drug free awareness program to inform employees about:
 - (1) The dangers of drug abuse in the workplace;

- (2) The grantee's or contractor's policy to maintain a drug free workplace;
- (3) Any available drug counseling, rehabilitation and employee assistance program; and
- (4) The penalties that may be imposed upon an employee for drug violations.
- (c) Providing a copy of the statement required by subparagraph (a) to each employee engaged in the performance of the contract or grant and to post the statement in a prominent place in the workplace.
- (d) Notifying the contracting, or granting agency within ten (10) days after receiving notice under part (b) of paragraph (3) of subsection (a) above from an employee or otherwise, receiving actual notice of such conviction.
- (e) Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program.
- (f) Assisting employees in selecting a course of action in the event drug counseling, treatment and rehabilitation is required and indicating that a trained referral team is in place.

Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act, the ENGINEER, LPA and the Department agree to meet the PROJECT SCHEDULE outlined in EXHIBIT B. Time is of the essence on this project and the ENGINEER's ability to meet the PROJECT SCHEDULE will be a factor in the LPA selecting the ENGINEER for future projects. The ENGINEER will submit progress reports with each invoice showing work that was completed during the last reporting period and work they expect to accomplish during the following period.

- 10. Due to the physical location of the project, certain work classifications may be subject to the Prevailing Wage Act (820 ILCS 130/0.01 et seq.).
- 11. For Preliminary Engineering Contracts:
 - (a) That tracing, plans, specifications, estimates, maps and other documents prepared by the ENGINEER in accordance with this AGREEMENT shall be delivered to and become the property of the LPA and that basic survey notes, sketches, charts, CADD files, related electronic files, and other data prepared or obtained in accordance with this AGREEMENT shall be made available, upon request to the LPA or to the DEPARTMENT, without restriction or limitation as to their use. Any re-use of these documents without the ENGINEER involvement shall be at the LPA's sole risk and will not impose liability upon the ENGINEER.
 - (b) That all reports, plans, estimates and special provisions furnished by the ENGINEER shall conform to the current Standard Specifications for Road and Bridge Construction, Bureau of Local Roads and Streets Manual or any other applicable requirements of the DEPARTMENT, it being understood that all such furnished documents shall be approved by the LPA and the DEPARTMENT before final acceptance. During the performance of the engineering services herein provided for, the ENGINEER shall be responsible for any loss or damage to the documents herein enumerated while they are in the ENGINEER's possession and any such loss or damage shall be restored at the ENGINEER's expense.

AGREEMENT SUMMARY

Prime Consultant (Firm) Name	TIN/FEIN/SS Number	Agreement Amount
Civiltech Engineering, Inc.		\$214,945.00
Subconsultants	TIN/FEIN/SS Number	Agreement Amount
A3E+OES		\$7,350.00
Subconsultant Total		\$7,350.00
Prime Consultant Total		\$214,945.00
Total for all work		\$222,295.00

AGREEMENT SIGNATURES

Executed by the LPA:

Attest: The

Local Public Agency Type
County

 of

Local Public Agency
Lake

By (Signature & Date)

--

By (Signature & Date)

--

Local Public Agency

Lake

Local Public Agency Type

County

Clerk

Title

Chair, Lake County Board

(SEAL)

Executed by the ENGINEER:

Attest:

Prime Consultant (Firm) Name
Civiltech Engineering, Inc.

By (Signature & Date)


--

Title

President

By (Signature & Date)



Title

Vice President

APPROVED:

Regional Engineer, Department of Transportation (Signature & Date)

--

Local Public Agency	Prime Consultant (Firm) Name	County	Section Number
Lake County Division of Transport	Civiltech Engineering, Inc.	Lake	23-00177-03-ES

EXHIBIT A
SCOPE OF SERVICES

To perform or be responsible for the performance of the engineering services for the LPA, in connection with the PROJECT herein before described and enumerated below

See Attached for detailed Scope of Services

**Darrell Road and Roberts Road Feasibility Study
Lake County Division of Transportation
LCDOT Project Number 23-00177-03-ES**

Scope of Services

I. Project Approach

The Lake County Division of Transportation (LCDOT) has identified the need for a safety improvement at the intersection of Darrell Road and Roberts Road in Port Barrington. To establish the extent of the needed improvement, a Feasibility Study will be completed and include a planning level evaluation of the existing safety, operation, and geometric deficiencies of the intersection and identify potential alternatives. The planning level analyses will use as much existing information as possible from the Lake County GIS website, other agency websites, and existing plans and maps to develop and analyze the range of alternatives for the study. After a preferred alternative improvement has been identified, a Feasibility Study and Executive Summary and Project Scoping Report will be completed. It is assumed there will be no Public Involvement during the Feasibility Study and LCDOT staff will complete any agency coordination. It is also assumed evaluations will be conducted for a 2050 design year, with the ability to interpolate to intermediate years, if desired.

The Feasibility Study will consider the following potential Build alternatives for comparison of costs, impacts, and benefits:

- Converting the existing signalized intersection to an all-way stop controlled intersection.
- Providing safety enhancements as appropriate and maintaining the existing signal control.
- Converting the signalized intersection to a roundabout.

II. Scope of Services

The following is the proposed scope of services for the Darrell Road and Roberts Road Feasibility Study.

Item 1 - Early Coordination and Data Collection – This work item will include collecting available existing information as follows:

- a. Collect and review previous studies and existing roadway plans.
- b. Collect Land Use, School District, Park District, etc. maps and plans.
- c. Obtain public and private utility atlases through coordination with JULIE.
- d. Perform project area reconnaissance.
- e. Obtain recent digital aerial photography at a scale of 1" = 50'.
- f. Obtain recent GIS Data from the Lake County Open Data Portal and the McHenry County IL Data Portal.

Item 2 – Digital Terrain Models (DTM) and Preparation of Base Maps – The Feasibly Study includes a larger project area and performing a full topographic survey would be cost prohibitive. Drone data collection can be used to capture up-to-date aerial and digital terrain model information for the project area. We also plan to use data from the Illinois State Geological

Survey to supplement the drone data, as necessary. Lake County contour information will be used to verify the accuracy of the DTM and surface model. The resulting surface model will be used for the development and analysis of alternatives for the feasibility study. The drone data collection will be limited to approximately 20 feet beyond the existing right-of-way, as well as approximately 100 feet south of the existing right-of-way along Darrell Road/Rawson Bridge Road. Drone data will be collected along the north leg to Noble Parkway, along the west leg to Riverwalk Lane, approximately 1,000 feet along the east leg, along the south leg to Center Street, and along Center Street from Roberts Road to the Fox River Forest Preserve Trail.

In addition to aerial and DTM data, drone video data will be collected at the intersection of Darrell Road/Roberts Road during the peak hours. Drone video collection is limited to 20 to 25 minute intervals (weather dependent), and requires an approximately 5 minute gap in order to exchange the battery. Drone video data will be used to identify existing safety and/or operational deficiencies. Video collection will be completed during the A.M. and P.M. peak hours, collecting approximately 1 hour of video during each peak hour.

The Lake County GIS data will be used to determine the presence and locations of environmental resources including wetlands and floodplains. The data will also be used to determine existing right-of-way and land use within the project area.

Base sheets will be developed to include aerial photography, the information obtained from the ISGS, Lake County GIS website, and other maps and plans. Therefore, this scope item includes:

- a. Drone Aerial and DTM Data Collection and Processing.
- b. Drone Video Collection and Processing.
- c. Obtain Illinois State Geological Survey Data.
- d. Combine collected data and create project DTM and surface model.
- e. Preparation of base sheets.

Item 3 - Crash Analyses – To improve the safety of the intersection, the crash history will be investigated to identify the existence of any safety hazards. A Highway Safety Manual (HSM) Analysis will be completed for the existing condition, 2050 No-Build, and up to three 2050 Build alternative intersection treatments to compare the potential safety improvements. The crash data will be collected through the Lake County Transportation Data Management System. Typically, the most recent 5-years of data will be utilized, with 2021 as the most recent data available. An additional evaluation year of crash history is proposed, as there was a fatal crash in 2016. This work item includes the following:

- a. Collect 6 years of crash data (2016-2021) to include the 2016 fatality crash data and most recent 5-year history. Individual crash reports to be provided by LCDOT upon request.
- b. Evaluate drone video data for intersection safety deficiencies.
- c. Tabulate data and plot collision diagrams.
- d. Prepare roadway lighting warrant analysis.
- e. Evaluate safety improvement needs, identify countermeasures and write crash analysis text.
- f. Perform HSM Analysis for existing condition, 2050 No-Build, and up to three 2050 Build Alternatives. Because the HSM does not currently have a predictive model available for

roundabouts, National Cooperative Highway Research Program (NCHRP) 1043 Guide for Roundabouts and NCHRP 888 Development of Roundabout Crash Prediction Models and Methods will be used for comparison.

Item 4 - Traffic Analyses - An analysis of the existing and proposed traffic patterns will be an important task in the development and analysis of the alternatives for this project. This would include obtaining historic (as available) and new traffic counts at the intersection of Darrell Road/Roberts Road as well as the driveway located approximately 150 feet north of the intersection. Traffic data will be collected while school is in session in order to capture bus and student traffic. Sidra and Synchro will be used to analyze the existing and 2050 projected traffic volumes for the No-Build and three Build alternatives. A signal warrant analysis and a multi-lane roundabout staging analysis will be completed. The findings of the Safety and Traffic Analyses will be presented in a Technical Memorandum, recommending intersection treatments to be further studied for geometric and fatal flaw analysis. The traffic analyses item is comprised of the following:

- a. Obtain turning movement traffic counts using video counting units at the Darrell Road/Roberts Road intersection and the Roberts Road/Crossroads Community Church access drive. The Darrell Road/Roberts Road intersection count will be a 24-hour count completed on a weekday while school is in session and the Roberts Road/Crossroads Community Church count will be a 6-hour count completed on a Sunday between 8:00 a.m. and 2:00 p.m.
- b. Reduce and tabulate traffic count data and prepare traffic volume exhibits.
- c. Obtain 2050 traffic projections from CMAP for study area roadways for the No-Build condition and each of the three Build alternatives.
- d. Develop design hourly traffic volumes (DHV's) for the No-Build condition and each of the three Build alternatives.
- e. Develop an existing and 2050 No-Build Synchro model for the existing signalized intersection condition. This includes an internal draft, a revised draft for LCDOT review, and up to two revisions based on LCDOT comments (during Technical Memo review).
- f. Evaluate drone video data for intersection operation deficiencies and to confirm existing operation.
- g. Perform a traffic signal warrant analysis at the Darrell Road/Roberts Road intersection using existing traffic volumes.
- h. Analyze the 2050 Build capacity for three alternatives using Sidra for roundabouts and Synchro for the other alternatives. This includes an internal draft, revised draft for LCDOT review, and up to two revisions based on LCDOT comments (during Technical Memo review).
- i. Analyze the potential for multi-lane roundabout staging, identifying if/when a potential single lane roundabout could be converted to a multi-lane roundabout.
- j. Prepare and revise a Safety and Traffic Analysis Technical Memorandum. This includes an internal draft, a revised draft for LCDOT review, and up to two revisions based on LCDOT comments.

Item 5 - Concept Geometric Studies – Following the evaluation of intersection treatment types in the Safety and Traffic Analysis Tech Memo, geometric concepts will be developed for comparison of alternatives. For scoping purposes, this item will include the concept geometric evaluation of the three Build alternative intersection treatments, with two variations of the

signalized intersection and roundabout intersection concepts (total of five intersection alternatives). An evaluation of existing and potential future bicycle and pedestrian connections will be completed. This task will include the following items:

- a. Prepare preliminary horizontal geometrics on topographic base sheets for five alternatives.
- b. Define preliminary vertical roadway geometrics including preliminary analysis of proposed roadway cross sections for all alternatives.
- c. Analyze up to two pedestrian/bicycle accommodation alternates.
- d. Identify preliminary right-of-way acquisition and grading easement limits and prepare summary table of right-of-way acquisition needs for each alternative.
- e. Analyze driveway access for each of the five alternatives.
- f. Submit preliminary geometric concepts to LCDOT for review.
- g. Prepare order of magnitude cost estimates for each alternative with up to two revisions based on geometric revisions, includes QC/QA reviews with Phase II/III staff.
- h. Analyze the Cost-Benefit Ratio for consideration for potential Highway Safety Improvement Program (HSIP). The Cost-Benefit Ratio will be calculated using the HSIP Benefit Cost Tool.

Item 6 - Drainage Study – An overall investigation of the existing drainage as well as the requirements for detention and water quality treatments in order to comply with the Lake County Watershed Development Ordinance, for the alternatives will be evaluated as part of this item. These analyses are intended to determine impacts to the surrounding environment and develop order of magnitude cost estimates. The following items will be performed as part of this task:

Evaluation of Existing Drainage Patterns

- a. Prepare General Location Drainage Map using the USGS Hydrologic Atlas as a base map.
- b. Develop watershed divides and identify drainage features on a macroscopic level.
- c. Identify outlets and determine interpreted divides on a macroscopic level.
- d. Identify floodplains within the project area.
- e. Prepare an Existing Drainage Overview Exhibit that shows overall drainage patterns as well as existing drainage outlets, and identifies drainage features such as ditches, culverts, storm sewers, existing detention basins, drainage boundaries and floodplains.

Proposed Drainage

- f. Identify potential floodplain impacts for each alternative.
- g. Quantify required stormwater detention to comply with the Lake County Watershed Development Ordinance for each alternative.
- h. Develop preliminary locations for stormwater detention for each alternative.
- i. Identify potential impacts to adjacent drainage systems for each alternative.
- j. Prepare a Proposed Drainage Overview Exhibit.

Item 7 - Environmental Overview – A high-level desktop evaluation will be completed to identify potential environmental impacts that may require additional attention during the potential future Phase I/II studies for this project. This evaluation will include Threatened & Endangered Species, Wetlands, Historic Properties, Section 4(f) & 6(f) Land, Special Waste, Noise, Tree

Impacts, Floodplain/Floodway, and Agricultural impacts. Field measurements and modeling for noise analyses are not included. The Feasibility Study will determine if a Highway Traffic Noise Analysis will likely be required. The need for the analysis will be confirmed at a future Phase I Study kick-off meeting with IDOT, and will be completed during the Phase I Study if necessary.

This task will include the following items:

- a. Evaluate the project area for existing Environmental Resources.
- b. Documentation of potential impacts to each resource for all alternatives.

Item 8 – Wetland Studies – Following the selection of the preferred alternative, a Wetland Delineation will be completed. We propose to use A3E+OES as a subconsultant for the wetland delineation. See Exhibit B for a copy of their proposal.

Item 9 – Draft Feasibility Report – The Feasibility Report is a planning document that will include maps, charts, exhibits, and tables to help describe and define the various studies and design elements for the alternatives studied. The analysis and evaluation of the alternatives completed in Item 5 – Concept Geometric Studies will be discussed and exhibits and tables, including alternative base sheets and right-of-way acquisition tables, will be incorporated into the Feasibility Report. Design criteria will be defined. This document will follow a similar format/contents to the LCDOT Scoping Report. It is assumed all submittals will be electronic and LCDOT will provide any required historic information. This item will include the following:

- a. Prepare report exhibits and checklists, including location map, existing conditions, land-use exhibits, existing and proposed typical sections, existing traffic data, possible detour route, pavement history, non-motorized travel investments, Lake County Stormwater Management Commission (LCSMC) checklist, permit checklist, and agreement checklist.
- b. Write, proofread, and edit the Draft Feasibility Report.

Item 10 – Funding Application Evaluation – Upon selection of the Preferred Alternative, Federal Funding and other funding sources will be evaluated to identify any potential funding opportunities that may be applicable to this project. If a potential funding opportunity is identified, a funding application could be prepared and submitted as part of a separate contract.

Item 11 – Final Feasibility Report – This item will include addressing the comments received on the Draft Feasibility Report and submittal of a Pre-final Feasibility Report. Following the County review of the Pre-Final Feasibility Report, a review meeting will be held to discuss comments as well as to coordinate how to proceed with the project into Phase I/II and to review potential funding opportunities. Upon review and receipt of comments on the Pre-Final version, a Final Feasibility Study will be submitted. It is assumed all submittals will be electronic. This task item includes:

- a. Preparation for and attendance at one Draft Feasibility Report review meeting.
- b. Revise Draft Feasibility Report to address LCDOT comments and submit one Pre-Final Feasibility Report. This includes a disposition of comments.

- c. Revise Pre-Final Feasibility Report and submit one Final Feasibility Report. This includes a disposition of comments.

Item 12 - Supervision, Administration and Project Coordination – This item includes project setup, monthly invoicing and preparation of status reports, quarterly client coordination meetings as needed and in-house coordination meetings. It is assumed this project will be completed in 12 months, from the time Notice to Proceed is received. This item also includes implementation of Civiltech's quality control/quality assurance in-house review process.

Local Public Agency	Prime Consultant (Firm) Name	County	Section Number
Lake County Division of Transport	Civiltech Engineering, Inc.	Lake	23-00177-03-ES

**EXHIBIT B
PROJECT SCHEDULE**

See attached for Project Schedule.

Feasibility Study Project Schedule
Darrell Road at Roberts Road

Notice to Proceed	October 2023
Traffic Counts	October 2023
Submit DRAFT Safety and Traffic Analysis Memo	December 2023
Submit Final Safety and Traffic Analysis Memo	February 2024
Preliminary Geometric Alternatives to LCDOT	Spring 2024
Draft Feasibility Study to LCDOT	June 2024
Wetland Delineation	Spring-Summer 2024
Submit Pre-Final Feasibility Study to LCDOT	September 2024
LCDOT Feasibility Study Approval	October 2024

Local Public Agency	Prime Consultant (Firm) Name	County	Section Number
Lake County Division of Transport	Civiltech Engineering, Inc.	Lake	23-00177-03-ES

Exhibit C
Qualification Based Selection (QBS) Checklist

The LPA must complete Exhibit D. If the value meets or will exceed the threshold in 50 ILCS 510, QBS requirements must be followed. Under the threshold, QBS requirements do not apply. The threshold is adjusted annually. If the value is under the threshold with federal funds being used, federal small purchase guidelines must be followed.

☐ Form Not Applicable (engineering services less than the threshold)

Items 1-13 are required when using federal funds and QBS process is applicable. Items 14-16 are required when using State funds and the QBS process is applicable.

		No	Yes
1	Do the written QBS policies and procedures discuss the initial administration (procurement, management and administration) concerning engineering and design related consultant services?	<input type="checkbox"/>	<input type="checkbox"/>
2	Do the written QBS policies and procedures follow the requirements as outlined in Section 5-5 and specifically Section 5-5.06 (e) of the BLRS Manual?	<input type="checkbox"/>	<input type="checkbox"/>
3	Was the scope of services for this project clearly defined?	<input type="checkbox"/>	<input type="checkbox"/>
4	Was public notice given for this project?	<input type="checkbox"/>	<input type="checkbox"/>
5	Do the written QBS policies and procedures cover conflicts of interest?	<input type="checkbox"/>	<input type="checkbox"/>
6	Do the written QBS policies and procedures use covered methods of verification for suspension and debarment?	<input type="checkbox"/>	<input type="checkbox"/>
7	Do the written QBS policies and procedures discuss the methods of evaluation?	<input type="checkbox"/>	<input type="checkbox"/>
	Project Criteria	Weighting	
8	Do the written QBS policies and procedures discuss the method of selection?	<input type="checkbox"/>	<input type="checkbox"/>
Selection committee (titles) for this project			
Top three consultants ranked for this project in order			
1			
2			
3			
9	Was an estimated cost of engineering for this project developed in-house prior to contract negotiation?	<input type="checkbox"/>	<input type="checkbox"/>
10	Were negotiations for this project performed in accordance with federal requirements.	<input type="checkbox"/>	<input type="checkbox"/>
11	Were acceptable costs for this project verified?	<input type="checkbox"/>	<input type="checkbox"/>
12	Do the written QBS policies and procedures cover review and approving for payment, before forwarding the request for reimbursement to IDOT for further review and approval?	<input type="checkbox"/>	<input type="checkbox"/>
13	Do the written QBS policies and procedures cover ongoing and finalizing administration of the project (monitoring, evaluation, closing-out a contract, records retention, responsibility, remedies to violations or breaches to a contract, and resolution of disputes)?	<input type="checkbox"/>	<input type="checkbox"/>
14	QBS according to State requirements used?	<input type="checkbox"/>	<input type="checkbox"/>
15	Existing relationship used in lieu of QBS process?	<input type="checkbox"/>	<input type="checkbox"/>
16	LPA is a home rule community (Exempt from QBS).	<input type="checkbox"/>	<input type="checkbox"/>

Darrell Road and Roberts Road
Feasibility Study
Lake County Division of Transportation

COST ESTIMATE OF CONSULTANT SERVICES
PHASE I ENGINEERING

Personnel & Hours													Total Hours	% of Hours	Labor Cost
Department Head	Project Manager	Project Engineer	Design Engineer	CAD Technician	Sr. Drainage Engineer	Drainage Engineer	Sr. Traffic Engineer	Traffic Engineer	Graphic Designer	Design Technician					
	\$78.00	\$68.00	\$42.00	\$38.00	\$43.00	\$85.00	\$42.00	\$58.00	\$48.00	\$38.50	\$43.00				
Task															
1	Early Coordination and Data Collection														
	0	0	14	14	0	0	0	0	0	0	10		38	2.2%	\$ 1,550
2	Digital Terrain Models (DTM) and Preparation of Base Maps														
	0	0	2	24	36	0	0	0	0	0	36		98	5.7%	\$ 4,092
3	Crash Analysis														
	0	10	22	72	0	0	0	0	0	0	4		108	6.3%	\$ 4,512
4	Traffic Analyses														
	2	12	20	44	0	0	0	38	118	0	16		250	14.5%	\$ 12,040
5	Concept Geometric Studies														
	16	42	148	256	0	2	0	2	0	0	28		494	28.7%	\$ 21,538
6	Drainage Study														
	0	4	0	0	0	26	160	0	0	0	0		190	11.0%	\$ 9,202
7	Environmental Overview														
	2	8	24	56	0	0	0	0	0	0	0		90	5.2%	\$ 3,836
8	Wetland Studies														
	0	4	4	0	0	0	0	0	0	0	0		8	0.5%	\$ 440
9	Draft Feasibility Report														
	2	8	20	80	0	1	2	0	4	0	12		129	7.5%	\$ 5,457
10	Funding Application Evaluation														
	2	4	4	8	0	0	0	0	0	0	6		24	1.4%	\$ 1,158
11	Final Feasibility Report														
	6	14	28	48	0	1	2	0	2	0	8		109	6.3%	\$ 5,029
12	Supervision, Administration, and Project Coordination														
	22	60	60	16	0	8	4	8	4	0	0		182	10.6%	\$ 10,428
Sub-Total													1720		
% of Hours														100.0%	
	Total Cost	\$4,056	\$11,288	\$14,532	\$23,484	\$1,548	\$3,230	\$7,056	\$2,784	\$6,144	\$0	\$5,160			\$79,282
	Direct Labor Multiplier	2.70													\$214,061
	Direct Costs (See Exhibit A-4)														\$883
	Subconsultants (See Exhibit A-4)														\$7,350
Total Engineering Cost:															\$222,295

Darrell Road and Roberts Road
Feasibility Study
Lake County Division of Transportation

WORKHOUR ESTIMATE
PHASE I ENGINEERING

Item No.	Task	Personnel & Hours											Total Hours	% of Hours
		Department Head	Project Manager	Project Engineer	Design Engineer	CAD Technician	Sr. Drainage Engineer	Drainage Engineer	Sr. Traffic Engineer	Traffic Engineer	Graphic Designer	Design Technician		
1	Early Coordination and Data Collection													
a.	Collect and review previous studies and existing roadway plans.			4									4	10.5%
b.	Collect Land Use, School District, Park District, etc. maps and plans.				2								2	5.3%
c.	Obtain public and private utility atlases through coordination with JULIE.			2	4								6	15.8%
d.	Perform project area reconnaissance.			8	8								16	42.1%
e.	Obtain recent digital aerial photography at a scale of 1" = 50'.											2	2	5.3%
f.	Obtain recent GIS Data from the Lake County Open Data Portal and the McHenry County IL Data Portal.											8	8	21.1%
Sub-total Item 1		0	0	14	14	0	0	0	0	0	0	10	38	100.0%
2	Digital Terrain Models (DTM) and Preparation of Base Maps													
a.	Drone Aerial and DTM Data Collection and Processing.					16						16	32	32.7%
b.	Drone Video Collection and Processing.				16	16							32	32.7%
c.	Obtain Illinois State Geological Survey Data.											4	4	4.1%
d.	Combine collected data and create project DTM and surface model.				4	4						4	12	12.2%
e.	Preparation of base sheets.			2	4							12	18	18.4%
Sub-total Item 2		0	0	2	24	36	0	0	0	0	0	36	98	100.0%
3	Crash Analysis													
a.	Collect 6 years of crash data (2016-2021) to include the 2016 fatality crash data and most recent 5-year history. Individual crash reports to be provided by LCDOT upon request.			2	8								10	9.3%
b.	Evaluate drone video data for intersection safety deficiencies.		2	2	2								6	5.6%
c.	Tabulate data and plot collision diagrams.			4	24							4	32	29.6%
d.	Prepare roadway lighting warrant analysis.				4								4	3.7%
e.	Evaluate safety improvement needs, identify countermeasures and write crash analysis text.		2	2	4								8	7.4%
f.	Perform HSM Analysis for existing condition, 2050 No-Build, and up to three 2050 Build Alternatives.		6	12	30								48	44.4%
Sub-total Item 3		0	10	22	72	0	0	0	0	0	0	4	108	100.0%

Darrell Road and Roberts Road
Feasibility Study
Lake County Division of Transportation

WORKHOUR ESTIMATE
PHASE I ENGINEERING

Item No.	Task	Personnel & Hours											Total Hours	% of Hours
		Department Head	Project Manager	Project Engineer	Design Engineer	CAD Technician	Sr. Drainage Engineer	Drainage Engineer	Sr. Traffic Engineer	Traffic Engineer	Graphic Designer	Design Technician		
4	Traffic Analyses													
a.	Obtain 24-hour turning movement traffic counts using video counting units at the Darrell Road/Roberts Road intersection and the Roberts Road/Crossroads Community Church access.				16							16	32	12.8%
b.	Reduce and tabulate traffic count data and prepare traffic volume exhibits.								2	4			6	2.4%
c.	Obtain 2050 traffic projections from CMAP for study area roadways for the No-Build condition and each of the three alternatives.		2	2					2	4			10	4.0%
d.	Develop design hourly traffic volumes (DHV's) for the No-Build condition and each of the three alternatives.		2	2					2	4			10	4.0%
e.	Develop an existing and 2050 No-Build Synchro model for the existing signalized intersection condition. This includes an internal draft, revised draft for LCDOT, and two revisions based on LCDOT comments (during Technical Memo review).			2					8	24			34	13.6%
f.	Evaluate drone video data for intersection operation deficiencies and confirm existing operation.		2	2	4				2	4			14	5.6%
g.	Perform a traffic signal warrant analysis at the Darrell Road/Roberts Road intersection using existing traffic volumes.								2	6			8	3.2%
h.	Analyze the 2050 Build capacity for three alternatives using Sidra for roundabouts and Synchro for the other alternatives. This includes an internal draft, revised draft, and revisions based on LCDOT comments (during Technical Memo review).		2	4	4				12	48			70	28.0%
i.	Analyze the potential for multi-lane roundabout staging, identifying if/when a potential single lane roundabout could be converted to a multi-lane roundabout.								4	12			16	6.4%
j.	Prepare and revise a Safety and Traffic Analysis Technical Memorandum. This includes an internal draft, revised draft for LCDOT, and two revisions based on LCDOT comments.	2	4	8	20				4	12			50	20.0%
Sub-total Item 4		2	12	20	44	0	0	0	38	118	0	16	250	100.0%
5	Concept Geometric Studies													
a.	Prepare preliminary horizontal geometrics on topographic base sheets for five alternatives.	4	8	60	96							8	176	35.6%
b.	Define preliminary vertical roadway geometrics including preliminary analysis of proposed roadway cross sections for all alternatives.	2	8	24	32							8	74	15.0%
c.	Analyze pedestrian/bicycle accommodation alternates.	2	4	12	24							4	46	9.3%
d.	Identify preliminary right-of-way acquisition and grading easement limits.		4	16	24								44	8.9%
e.	Analyze driveway access for each of the five alternatives.		2	4	8				2				16	3.2%
f.	Submit preliminary geometric concepts to LCDOT for review.	2	4	8	12							8	34	6.9%
g.	Prepare order of magnitude cost estimates for each alternative with up to two revisions based on geometric revisions.	4	8	16	40		2						70	14.2%
h.	Analyze the Cost-Benefit Ratio for consideration for potential Highway Safety Improvement Program (HSIP). The Cost-Benefit Ratio will be calculated using the HSIP Benefit Cost Tool.	2	4	8	20								34	6.9%
Sub-total Item 5		16	42	148	256	0	2	0	2	0	0	28	494	100.0%

Darrell Road and Roberts Road
Feasibility Study
Lake County Division of Transportation

WORKHOUR ESTIMATE
PHASE I ENGINEERING

Item No.	Task	Personnel & Hours											Total Hours	% of Hours
		Department Head	Project Manager	Project Engineer	Design Engineer	CAD Technician	Sr. Drainage Engineer	Drainage Engineer	Sr. Traffic Engineer	Traffic Engineer	Graphic Designer	Design Technician		
6	Drainage Study													
	<i>Evaluation of Existing Drainage Patterns</i>													
a.	Prepare General Location Drainage Map using the USGS Hydrologic Atlas as a base map.						1	8					9	4.7%
b.	Develop watershed divides and identify drainage features on a macroscopic level.						2	16					18	9.5%
c.	Identify outlets and determine interpreted divides on a macroscopic level.						2	16					18	9.5%
d.	Identify floodplains within the project area.						1	8					9	4.7%
e.	Prepare an Existing Drainage Overview Exhibit that shows overall drainage patterns as well as existing drainage outlets, and identifies drainage features such as ditches, culverts, storm sewers, existing detention basins, drainage boundaries and floodplains.		2				4	20					26	13.7%
	<i>Proposed Drainage</i>													
f.	Identify potential floodplain impacts for each alternative.						2	12					14	7.4%
g.	Quantify required stormwater detention to comply with the Lake County Watershed						4	16					20	10.5%
h.	Develop preliminary locations for stormwater detention for each alternative.						4	20					24	12.6%
i.	Identify potential impacts to adjacent drainage systems for each alternative.						2	12					14	7.4%
j.	Prepare a Proposed Drainage Overview Exhibit.		2				4	32					38	20.0%
Sub-total Item 6		0	4	0	0	0	26	160	0	0	0	0	190	100.0%
7	Environmental Overview													
a.	Evaluate the project area for existing Environmental Resources.		2	8	16								26	28.9%
b.	Documentation of potential impacts to each resource for all alternatives.	2	6	16	40								64	71.1%
Sub-total Item 7		2	8	24	56	0	0	0	0	0	0	0	90	100.0%
8	Wetland Studies													
	<i>Wetland Studies to be completed by a subconsultant - A3E+OES</i>													
a.	Coordinate with Subconsultant		2	2									4	50.0%
b.	Review of subconsultant deliverables		2	2									4	50.0%
Sub-total Item 8		0	4	4	0	0	0	0	0	0	0	0	8	100.0%
9	Draft Feasibility Report													
a.	Prepare report exhibits and checklists, including location map, existing conditions, land-use exhibits, existing and proposed typical sections, existing traffic data, possible detour route, pavement history, non-motorized travel investments, Lake County Stormwater Management Commission (LCSMC) checklist, permit checklist, and agreement checklist.		4	12	40		1	2		4		12	75	58.1%
b.	Write, proofread, and edit the Draft Feasibility Report.	2	4	8	40								54	41.9%
Sub-total Item 9		2	8	20	80	0	1	2	0	4	0	12	129	100.0%
10	Funding Application Evaluation													
a.	Evaluate Preferred Alternative for potential Federal Funding and other funding sources.	2	4	4	8							6	24	100.0%
Sub-total Item 10		2	4	4	8	0	0	0	0	0	0	6	24	100.0%

Darrell Road and Roberts Road
Feasibility Study
Lake County Division of Transportation

WORKHOUR ESTIMATE
PHASE I ENGINEERING

Item No.	Task	Personnel & Hours											Total Hours	% of Hours
		Department Head	Project Manager	Project Engineer	Design Engineer	CAD Technician	Sr. Drainage Engineer	Drainage Engineer	Sr. Traffic Engineer	Traffic Engineer	Graphic Designer	Design Technician		
11	Final Feasibility Report													
a.	Preparation for and attendance at one Draft Feasibility Report review meeting.	2	2	4	4								12	11.0%
b.	Revise Draft Feasibility Report to address LCDOT comments and submit one Pre-Final Feasibility Report. This includes a disposition of comments.	2	8	16	24		1	2		2		8	63	57.8%
c.	Revise Pre-Final Feasibility Report and submit one Final Feasibility Report. This includes a disposition of comments.	2	4	8	20								34	31.2%
Sub-total Item 11		6	14	28	48	0	1	2	0	2	0	8	109	100.0%
12	Supervision, Administration, and Project Coordination													
a.	Project Setup, Monthly invoicing, and preparation of status reports.	2	16	16									34	18.7%
b.	Quarterly client coordination meetings.	2	12	12									26	14.3%
c.	In-house coordination meetings.	2	16	16	16		4	4	4	4			66	36.3%
d.	Quality Control/Quality Assurance in-house review process	16	16	16			4		4				56	30.8%
Sub-total Item 12		22	60	60	16	0	8	4	8	4	0	0	182	100.0%
Total Hours:		52	166	346	618	36	38	168	48	128	0	120	1720	
% of Hours:		3.0%	9.7%	20.1%	35.9%	2.1%	2.2%	9.8%	2.8%	7.4%	0.0%	7.0%	100.0%	

**Darrell Road and Roberts Road
Feasibility Study
Lake County Division of Transportation**

**DIRECT COSTS AND SUBCONSULTANT SERVICES
PHASE I ENGINEERING**

			Direct Cost	Subconsultant Expense
Item 1	Early Coordination and Data Collection			
Mileage				
	1 trip @	56 miles @	\$0.655	\$36.68
Item 2	Digital Terrain Models (DTM) and Preparation of Base Maps			
Mileage				
	3 trip @	56 miles @	\$0.655	\$110.04
Item 4	Traffic Analyses			
Video Count Data Reduction		1-24 Hour Count x \$410 each	\$410.00	
		1-6 Hour Count @ \$30/hr	\$180.00	
Mileage				
	4 trips @	56 miles @	\$0.655	\$146.72
Item 8	Wetland Studies			
Subconsultant Expense - A3E+OES				
See Attachment B				\$7,350.00
TOTAL:			\$883	\$7,350



A3E
OLSON ECOLOGICAL
JOINT VENTURE LLC

A3E OLSON ECOLOGICAL
JOINT VENTURE LLC
T: (630) 507-9002
www.a3e.com

July 17, 2023

James R. Tibble, P.E.
Civiltech Engineering, Inc.
Two Pierce Place, Suite 1400
Itasca, IL 60143

**RE: *Scope of Work – Darrell Road/Roberts Road Intersection Improvement Feasibility Study
Port Barrington, Illinois***

A3 Environmental Olson Ecological Joint Venture (A3E+OES) is pleased to submit this proposal to delineate wetlands and waterways associated with the client's project site, create a report detailing the findings for submittal to regulators, determine if the U.S. Army Corps of Engineers (USACE) has jurisdiction over the wetlands found. The project site is 17 acres located at the intersection of Darrell Road and Roberts Road in Port Barrington, Lake and McHenry Counties, Illinois. We will delineate the project site plus a 200-foot buffer surrounding it for a total area of 59.7 acres to be delineated.

Aquatic Resource Delineation & Report

A3E+OES will delineate aquatic resources found at the project site as shown in the attached map. As part of this process, we will conduct a desktop analysis and field assessment of the site and suspected aquatic resources and write a report to communicate our findings.

Desktop Analysis. The desktop analysis will be conducted prior to the field assessment. It will determine the rainfall conditions, floodplain boundaries, hydric soils, topography, wetlands on the National Wetlands Inventory, signs of aquatic resources on aerial imagery, and specific regulatory requirements for aquatic resource delineations for the site.

Field Assessment. The field assessment will be a full aquatic resource delineation in accordance with the U.S. Army Corps of Engineers (USACE) Chicago Regulatory District standards using the USACE Midwest Regional Supplement. This includes:

- Scout the site to determine potential aquatic resources and upland locations.
- Flag and analyze data points based on soils, hydrology, and vegetation.
- Stake the boundaries of any aquatic resources using pink delineation flags.
- Use a Trimble GPS unit to record data and boundary points which will be reflected in a map.
- Survey the plant community of each wetland found and creation of a Floristic Quality Assessment (FQA)."

Exhibit G



Aquatic Resources Delineation Report. The aquatic resource delineation report shall communicate the findings of the desktop analysis and field assessment and is intended for use by regulators to determine any permits or certifications that apply to the project. The report will include the following figures and appendices: location map, US Geological Survey topographic map, National Wetlands Inventory map, soil survey map, recent aerial photographs showing current and historic site conditions and aquatic resource delineation results, rainfall determination, data sheets, ground photographs, and floristic quality assessment.

Deliverable: A3E+OES will deliver a PDF version of the aquatic resource delineation report to the client. If requested by the client, A3E+OES will submit the report to regulating agencies.

A3E+OES appreciates the opportunity to submit this scope of work and looks forward to working with you on this project. If you have any questions, please call us at (630) 507-9002 ext. 115.

Sincerely,

A3 Environmental Olson Ecological Joint Venture

A handwritten signature in blue ink that reads 'Colleen Stull'.

Colleen Stull
Senior Project Manager

Attachments: Map of Areas to be Delineated, Terms & Conditions



A3E
OLSON ECOLOGICAL
JOINT VENTURE LLC

Map of Area to be Delineated

