DRAFT

Municipality	LOCAL AGENCY	Illinois Department of Transportation	CONSULTANT	Name: HR Green, Inc.
Township				Address: 420 N. Front Street
County: Lake County – Division of Transportation		**Preliminary Engineering Services Agreement For Motor Fuel Tax Funds**		City: McHenry
Section: 19-00132-05-CH				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 Deep Lake Road (V67)

Route FAU 0205 Length 2.05 Mi. 10800.00 FT (Structure No. NA)

Termini Depot Street to Wisconsin Border

Description:
Phase I and Phase II engineering services for the resurfacing of Deep Lake Road (V67) including intersection improvements at North Avenue (A2) and Depot Street, drainage improvements, and a non-motorized facility from Illinois Route 173 to the Wisconsin Border.

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
Under $50,000	_____ (see note)
	_____ %
	_____ %
	_____ %

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 $1,094,522.95

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**

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:

County of Lake of the
(~~Municipality/Township~~/County)

ATTEST:

State of Illinois, acting by and through its

By _____

County Board

Lake County Clerk

By _____

(Seal)

Title Chair, Lake County Board

RECOMMENDED FOR EXECUTION

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

Executed by the ENGINEER:

HR Green, Inc.
Engineering Firm
420 N. Front Street
Street Address
McHenry, Illinois 60050
City, State

ATTEST:

By _____

By _____ February 17, 2020

Title Project Manager

Title President - Transportation

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

EXHIBITA
SCOPE OF SERVICES

Lake County Division of Transportation
Deep Lake Road (Depot Street - Wisconsin Border)
Section: 19-00132-05-CH

1.0 Project Understanding

This AGREEMENT is between the Lake County Division of Transportation (hereafter "CLIENT" and HR GREEN, INC. (hereafter "COMPANY").

1.1 General Understanding

CLIENT desires Phase I and Phase II engineering services from a consultant prequalified with the Illinois Department of Transportation (IDOT) for the Deep Lake Road Improvements between Depot Street and the Wisconsin Border within the Village of Antioch and unincorporated Antioch Township, Lake County, Illinois (Section 19-00132-05-CH). The Phase I services will be required as needed to get Phase II plans and specifications approved. The proposed project will endeavor to improve the safety and operations of the intersections of Deep Lake Road with Depot Street and North Avenue; including, but not limited to, channelization measures, intersection signalization, roundabouts or other methods to satisfy the project objectives. The project improvements also include the resurfacing of Deep Lake Road within the project limits, and non-motorized improvements within the project limits and extending south to Illinois Route 173.

In addition to Phase II design engineering, the work will include intersection design studies, field survey, plats/legal descriptions and negotiations for right-of-way and easement acquisitions, storm sewer and stormwater detention design, wetland delineation, utility coordination, non-motorized travel accommodations, soils investigation, landscaping, hosting public information meeting(s), permitting, agreement preparation, and environmental assessments.

1.2 Design Criteria/Assumptions

It is assumed that local funds (non-federal) will be used for engineering and construction. The CLIENT administers Motor Fuel Tax (MFT) funds under the Agreement of Understanding with IDOT, thus reduced IDOT oversight.

The project will proceed in accordance with the CLIENT design criteria and standards as well as IDOT Bureau of Local Roads and Streets (BLRS) policies and procedures for roadway resurfacing and intersection improvement projects.

The design criteria will be the IDOT BLRS Manual Chapter 33 for Geometric Design of Existing Highways, Chapter 42 for Bicycle Guidelines, and the AASHTO Guide for the Development of Bicycle Facilities.

Additional project criteria will include CLIENT's Plan Preparation Guidelines, CLIENT's Design Survey Procedures, the Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways, the Standard Specifications for Water and Sewer Construction in Illinois, the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual and Midwest

Regional Supplement, and the Lake County Division of Transportation Standard Details and Specifications.

Improvements to municipal jurisdictional roadways and underground facilities will be designed in accordance with the local agency ordinances and standards.

In accordance with the project scoping report, the non-motorized feasibility study will extend along Deep Lake Road from Illinois Route 173 to the Wisconsin state line. It is assumed the non-motorized study and any subsequent bike path design or plan preparation will not cross to the south side of Illinois Route 173. IDOT is currently finalizing Phase I engineering for Illinois Route 173 improvements which includes bike path facilities.

CLIENT will manufacture and install proposed roadway and bike path signage for the project with the exception of the large roundabout directional signs (MUTCD D1-5). Design of the D1-5 roundabout directional signage will be prepared by the COMPANY.

Scope of services performed by the COMPANY shall be completed in accordance with generally accepted standards of practice and shall include the services to complete the following tasks:

2.0 Scope of Services

The CLIENT agrees to employ COMPANY to perform the following services:

2.1 Land Surveying, Plats and Legal Descriptions

Surveying will be performed according to CLIENT Design Survey Procedures (dated 10/19/18).

COMPANY will coordinate with CLIENT to prepare a survey right-of-entry letter for survey work on private property. COMPANY will contact property owners, to the extent possible, in advance of surveying on private property.

On this basis, COMPANY will perform the following survey tasks in accordance with applicable Design Survey Procedures (dated 10/19/18):

A. Topographic Survey

Survey will include approximately 10,800 feet or 2.05 miles along Deep Lake Road from the north line of Illinois Route 173 to 100 feet north of the Illinois state line, extending 1,000 feet west along Depot Street, and 1,000 feet west and east along North Avenue, and 150 feet along Hidden Creek Drive. The survey will extend 25 feet beyond the existing right-of-way line, beyond which the Lake County LiDAR mapping (1-foot contours) will be used. Survey will include existing visible features and improvements. Existing utilities and the wetlands delineated will be surveyed from visible markings or flags. Storm, sanitary sewer and water main structures will be surveyed, including rim elevation, invert, pipe size, direction and elevation as observed at unlocked manholes. COMPANY will field locate pavements, driveways, curb and gutters, pavement markings, signs, drainage structures, driveway culverts, cross road culverts, and other visible surface features within the above noted survey limits.

B. Existing Right-of-Way Survey

The existing dedicated or conveyed ROW will be surveyed per provided plats and documents from CLIENT and IDOT, along with research performed at the Lake County Recorder for adjoining subdivision plats, including the Redwing Slough Natural Area. Survey will be based on documents and field survey/recovery of existing monuments. Baseline plan stationing will follow existing CLIENT stationing for Deep Lake Road and North Avenue.

C. Base Mapping

Compile all the above information into one base map MicroStation drawing suitable for plotting at 1'=20' scale that is representative of existing conditions for use in Phase I and Phase II engineering work in developing the detailed plan, profile and cross sections for the preferred alternative. Survey base map drawing will be generated in MicroStation V8i SS4.

D. Tree Survey

Conduct a survey of trees six inches (6") or greater in diameter within the topographic survey limits plus an additional ten feet (10') identified by type (deciduous or evergreen) and size.

E. Supplemental Survey

Survey will include approximately 5,000 feet or 0.95 miles along one side (east or west) of Deep Lake Road from the north line of Illinois Route 173 to the south line of Depot Street. The supplemental survey will also include the east side of Deep Lake Road from Hidden Creek Drive to approximately 300 feet south of Hidden Creek Drive. The survey will include existing visible surface features and improvements within the new roadway pavement. The supplemental survey will be conducted after the CLIENT's planned resurfacing and shoulder improvement project.ee

F. Plat of Highways and Legal Descriptions

COMPANY will prepare a plat of highways and legal descriptions according to CLIENT's Plat Guidelines (Revised 3/10/17) as well as IDOT Guidelines for an assumed maximum of thirty five (35) adjacent parcels of land to be acquired for right of way, permanent easements, or temporary construction easements. Boundary survey will be performed on the thirty five (35) subject parcels as described in the provided title commitments Schedule A as required to complete the proposed plat of highways. Existing parcel corners will be reset in temporary easements that have been disturbed during construction activities. Following construction, each proposed right-of-way parcel will be monumented with 5/8" steel bars with CLIENT ROW caps or other suitable markers.

2.2 Right-of-Way Acquisition

As a subconsultant to the COMPANY, Santacruz Land Acquisitions (Santacruz) professionals will perform the land acquisition services. See Exhibit E attached for

Santacruz services proposal. Santacruz will only proceed with land acquisition services at identified parcels upon direction from the COMPANY and CLIENT.

A. Delivery and Review of Project Information

COMPANY will provide Santacruz with plats of highway, legal descriptions, the most recent title commitments, and any other pertinent information regarding the property owner for each parcel assigned for acquisition. In addition, COMPANY will also provide Santacruz with a set of project plans, including, plan and profiles, drainage and utility plans, pavement marking plans, and cross sections.

B. Introductory Notice to Owners

The appraiser will notify the property owner of the proposed taking and will invite the property owner to be present during the inspection by the appraiser.

C. Appraisal

The appraiser shall make a detailed inspection of the properties and make such investigations and studies as are consistent with industry standard and necessary to derive sound conclusions for the preparation of appraisal reports. All appraisal work shall be completed within eight to ten (8-10) weeks after commencement.

The appraiser shall assist in analyzing and responding to valuation information provided by a property owner in support of a counter-offer.

As necessitated by a change of ownership, a revision to the right of way or for condemnation purposes, Santacruz will furnish and deliver updated or revised appraisals. Such requests may be pursuant to a separate work order.

D. Negotiation and Acquisition

Santacruz shall commence negotiations after approval by the CLIENT of the appraisals and the amount of just compensation to be offered to the property owner.

Before contacting the property owner, Santacruz will prepare and send the introductory letter to the property owner on the CLIENT’s letterhead.

Santacruz will present the property owner with an offer package, which shall contain the Offer to Purchase and other documents to assist the property owner with reviewing the right-of-way request.

Santacruz will make all reasonable efforts to complete the acquisition of the right-of-way from the property owner.

Santacruz will not have any authority to determine administrative settlements. Santacruz will consult with the CLIENT for approval of any counter offers and upon acceptance by the CLIENT of any such counter-offer, Santacruz will prepare the necessary documentation for administrative settlement.

Santacruz will review the title commitment provided for each parcel to determine the

liens and encumbrances that will need to be addressed in order to complete the acquisition process for the CLIENT.

If, during its discussions with the property owner, errors in the plans are discovered or the property owner requests design changes, Santacruz will immediately notify the CLIENT and COMPANY with this information. At any time during negotiations for situations involving design changes, errors in plans or for any other reason, if requested by CLIENT and COMPANY, Santacruz will cease negotiations on certain parcels until corrected information or further instruction is provided to Santacruz.

Upon successful negotiations with the property owner, Santacruz will prepare all necessary conveyance documents in order to complete the acquisition and obtain title approval for the property. Santacruz will submit the completed parcel file with original conveyance documents, any documents necessary for title clearance, the Negotiator's Log documenting all negotiation activities, copies of all correspondence with the property owner, title commitments, plats, and all other documentation as required by the CLIENT.

E. Project Management

Santacruz shall appoint a Project Manager for this project. The Project Manager will provide proposed project time-line with milestones on delivery. The Project Manager will coordinate all deliverables, keep project on schedule and maintain the channels of communication with the CLIENT and COMPANY.

The Project Manager will attend the land acquisition kick-off meeting and project status meetings. In addition, when needed, the Project Manager will review construction plans and provide comments.

The Project Manager shall provide QA/QC oversight for this contract. Santacruz has a very strong commitment to QA/QC for all its projects. In addition to monthly status reports prepared for our clients in which we review the progress of each parcel, Santacruz meets on a bi-weekly basis with its production team to assure that projects are on schedule and proceeding to letting.

The paralegal team at Santacruz reviews every title commitment to alert the negotiator of title concerns and to prepare for title clearance. Also, all conveyance documents prepared by the paralegals are reviewed by the head paralegal and/or the negotiator. Finally, all final packages of settled or condemned parcels are compiled using QA/QC checklist and reviewed by the Project Manager to assure proper completion.

2.3 Geotechnical Investigation

COMPANY will retain the services of Rubino Engineering (Rubino) to perform the geotechnical investigation for the project. See Exhibit F attached for Rubino services proposal.

The tasks to be performed as part of the soils investigation will include soil borings, soil analysis and a report summarizing the investigation.

A. Site Access and Traffic Control

Based on current site topography, surface conditions, and project discussions, Rubino anticipates that the project site will be accessible to track-mounted Geoprobe 7822DT drilling equipment.

Traffic control will consist of cones, approach signage, and flaggers. Rubino anticipates that the drill rig will require full lane closure.

B. Soil Borings & Pavement Cores

To obtain data to evaluate subsurface conditions within the proposed development/construction areas, Rubino proposes to drill soil borings as specified below.

Rubino will collect three (3) soil borings at the intersection of Deep Lake Road and Depot Street, and four (4) additional soil borings at the intersection of Deep Lake Road and North Avenue. Rubino will also collect an additional eight (8) soil borings adjacent to the edge of shoulder along Deep Lake Road for potential culvert extensions or structures. Additionally, Rubino will collect six (6) pavement cores to verify pavement composition.

Soil borings will be completed to a depth of ten feet (10'). If unsuitable bearing soils are encountered within the borings as proposed herein, the borings will be extended an additional five feet (5') to attempt to end the borings in suitable soils. If unsuitable soils persist at the end of an additional five feet (5') the COMPANY will be contacted prior to demobilizing.

Pavement cores will be completed to a depth of three feet (3'). Per the CLIENT scoping report, the existing pavement depths extend twenty-one to twenty-five inches (21"-25") below existing grade. The pavement cores will extend approximately twelve inches (12") below the pavement structure to identify soils classification, strength and moisture content.

C. Peat Probes

Rubino has researched the surficial geology along the site location and discovered there is a likelihood of encountering soft, decomposed organic or post glacial lake deposits. If soft organic materials are encountered Rubino recommends to complete peat probes to determine the limits of the soft material.

Rubino has anticipated collecting ten (10) peat probes, each ten feet (10') in depth as part of their services.

D. Laboratory Testing

The soil samples obtained during the field exploration program will be transported to the laboratory for classification and a limited number of laboratory tests. The nature and extent of the laboratory testing program is at the discretion of Rubino and will depend upon the subsurface conditions encountered during drilling.

Laboratory testing will be performed in accordance with applicable AASHTO or ASTM procedures and may include examination of selected samples to evaluate the soils' index properties and relative strength characteristics.

Based on the proposed quantity of soil borings, anticipated depths, and project type, a list of the anticipated laboratory tests are summarized below.

LABORATORY TEST	ESTIMATED QUANTITY	SAMPLE TYPE
Atterberg Limits	4	Split spoon, bulk, or Shelby Tube
Hydrometer	1	Split spoon, bulk, or Shelby Tube
Natural Moisture Content	104	Shelby Tube, Cohesive Samples
Organic Content	15	Split spoon, bulk, or Shelby Tube

E. Roadway Geotechnical Report

Upon completion of field and laboratory work, Rubino will prepare a roadway geotechnical engineering report (RGR) using the collected data. The RGR will include the following:

- Summary of COMPANY-provided project information and report basis
- Overview of encountered subsurface conditions
- Overview of field and laboratory tests performed including results
- RGR in accordance with the IDOT Geotechnical Manual
- Construction considerations, including temporary excavation and construction control of water

An electronic copy of the report will be provided. The report will be addressed to the COMPANY.

2.4 Special Waste Review

As a subconsultant to the COMPANY, Winston Engineering (Winston) professionals will perform the preliminary site assessment, environmental database review, and soils testing for the anticipated disposal of excavated materials. See Exhibit G attached for Winston services proposal.

A. Database Search

Winston specializes in Federal and State environmental record searches The database search for potential incidents and contaminants within the project study area will include Federal, State and Tribal environment records including, but not limited to, State UST, State LUST, State Voluntary Cleanup or landfills, State Brownfields, State Landfills, Federal NPL sites, Federal NPL site – delisted, Federal SEMS site, Federal SEMS site – NFRAP, Federal RCRA CORRACTS facilities list, Federal RCRA non-CORRACTS TSD facilities list, Federal RCRA generators list, Federal Brownfields sites, and the Federal ERNS system. The generator database report will include mapping exhibits, detailed incidents (if any), and known sensitive locations (if any). Upon completion, the database report will be provided to the

COMPANY and CLIENT.

B. Site Assessment & Soils Testing

Winston will conduct a site assessment and obtain soil samples within the project limits. The samples will undergo analytical characterization testing for VOC's, SVOCs, RCRA metals and irons, pH, PCBs, TCLP RCRA metals and irons (if necessary), SPLP RCRA metals and irons (if necessary) levels to confirm Illinois Environmental Protection Agency (IEPA) certification. Soils testing results will be provided to the COMPANY and CLIENT. In the event 'hot soils' are discovered through the sampling and testing process, Winston will than perform Waste Characterization sampling for landfill disposal.

C. Certification

A preliminary analysis of the project area, performed by Winston, indicates the improvements will likely be covered under the IEPA LPC-622 Soil Site Certification by Owner or Operator for Use of Uncontaminated Soil Fill Operation. However Thelen Materials will only accept material disposal covered under the IEPA LPC-663. Winston will perform the necessary soils testing required under the IEPA LPC-663 and provide certification documents to the COMPANY and CLIENT for inclusion in the project bid package.

In addition, Winston will provide a minimum of two (2) site pre-certification letters. Winston will also coordinate with Thelen Materials, prior to the project letting phase, in order to request a third pre-certification letter.

2.5 Wetlands Investigation

A. Delineation

COMPANY will complete a delineation of Waters of the U.S., including wetlands, for the project area, and for areas adjacent to the project site (off-site wetlands shall be identified through the use of reference materials including review of local wetland inventories, soil surveys and the most recent available photography), and shall be prepared in accordance with the current Corps of Engineers methodology and generally conducted during the growing season. The delineation will include a Floristic Quality Assessment using the latest Chicago District calculator. The delineation shall also include information on the occurrence of any high-quality aquatic resources (HQARs), and a listing of waterfowl and amphibian species observed while at the project area. The delineation should include an aerial photograph with the data points and wetland boundaries clearly labeled.

B. Permitting

A preliminary impact analysis of Lake County Wetland Inventory wetlands within twenty five feet (25') of existing right-of-way in the project corridor shows project impacts of 0.90 acres. The threshold for total wetland impacts for a Regional General Permit 3 for Transportation projects is 1.0 acres. This scope assumes the project impacts will remain below 1.0 acre. COMPANY will complete a permit package including all items (Items a – x) on the regional permit checklist

(https://www.lrc.usace.army.mil/Missions/Regulatory/Illinois/App-Checklist/).

Any impacts are assumed to be handled via wetland banking. Wetland banking will be coordinated by the CLIENT. Cost estimates will be calculated based upon wetland quality impact.

2.6 Environmental Review

COMPANY will conduct the environmental review and obtain the environmental reviews from the appropriate agencies as detailed below.

A. Illinois Department of Natural Resources

COMPANY will also utilize the Illinois Department of Natural Resources (IDNR) online EcoCAT (Ecological Compliance Assessment Tool) to obtain a consultation regarding the potential impacts from the proposed activity on Illinois endangered and threatened species and sites listed on the Illinois Natural Areas Inventory. It is assumed that the consultation will be obtained without additional studies and/or field archeological or cultural resource surveys.

B. Threatened and Endangered Species Evaluation

COMPANY will conduct the Threatened and Endangered Species Evaluation upon availability of results from the IDNR EcoCat and Wetland Delineation activity. The Section 7 review will be completed through the United States Fish and Wildlife Service (USFWS).

C. Illinois Historic Preservation Agency

COMPANY will prepare and submit an environmental submittal to the Illinois Historic Preservation Agency for review of construction impacts to cultural resources.

2.7 Non-Motorized Feasibility Study

COMPANY will investigate and analyze potential regional non-motorized path alignments along the east and west sides of Deep Lake Road between Illinois Route 173 and the Wisconsin state line. Alternatives will include an off-street bike paths and on-street bike lanes. Additional coordination will be required with the Village of Antioch as they have identified the Deep Lake Road corridor as a preferred bike path location in their Comprehensive Plan.

The non-motorized study for each of the options will establish preliminary construction limits, provide a determination of tree impacts (if any), investigation of environmental impacts including wetlands, ability for avoidance of Redwing Slough on the east side of Deep Lake Road, a drainage impact analysis, and anticipated land acquisition and construction costs.

COMPANY will develop aerial exhibits depicting the each option and corresponding constraints associated with each alignment. COMPANY will prepare a Feasibility Study analyzing each option and setting forth one (1) preferred option to carry further into detailed design during Phase II Engineering, if desired by the CLIENT.

2.8 Intersection Alternatives Analysis

A. Traffic Volume Data Collection & Review

Turning movement counts at intersections within the corridor will be obtained by the COMPANY. Turning movement count data will be collected from 6:00AM to 7:00PM on a typical mid-week day (Tuesday – Thursday) while school is in session (assuming prior to Memorial Day 2020) at the following two intersections.

- Deep Lake Road / Depot Street
- Deep Lake Road / North Avenue

COMPANY will obtain from Chicago Metropolitan Agency for Planning (CMAP) year 2050 traffic projections for the study area.

B. Crash Data Collection & Review

COMPANY will obtain crash data within the project study corridor from the County and Village of Antioch. Crash data will be from the most recently available five-year period. Crashes will be categorized by location and type to examine the underlying cause of the crashes and help determine if there are inherent roadway or adjacent border area features that contributed to the crashes. This information will be used to identify crash trends (if any) within the project area and identify and implement appropriate countermeasures as needed.

C. Traffic Signal Warrant Analysis

COMPANY will use the turning movement count data to perform signal warrant analyses at the two (2) study intersections. It is anticipated that traffic signalization will be one (1) potential build alternative to be evaluated at the study intersections. The analysis will determine whether or not traffic volumes warrant the installation of a traffic signal per MUTCD criteria.

D. Traffic Forecasting

COMPANY will use CMAP's 2050 volume projections to develop peak hour traffic projections for the forecast year (assumed to be 2050).

E. Traffic Operations Analysis

COMPANY will develop a traffic operations model using Synchro/SimTraffic, Version 10 traffic modeling software for the study corridor. The intersections listed in Task A will be included within the model.

The traffic operations model will be used to document the Existing Year and Year 2050 traffic operations of the intersections. The measures of effectiveness used to evaluate the operational effectiveness of the intersections will include delay, Level-of-Service and queue length at individual intersections.

Based on the evaluation of the existing geometry under both existing year and 2050 forecasted traffic volumes, build alternatives for each intersection will be developed. The build alternatives are anticipated to include:

- No Build: Maintain the same intersection geometry and lane configurations as in the existing conditions to accompany the planned resurfacing/widening and shoulder improvements.
- Turn Lane Improvements: Modify geometric configurations to provide appropriate number of lanes, including dedicated turn lanes with proper storage lengths and channelization, if appropriate.
- Roundabout: Replace the existing stop controlled intersections with single-lane roundabouts.
- Signalized: Construct traffic signals at the study intersections and modify lane configurations.

F. Intersection Design Studies & Technical Memorandum

COMPANY will review the compiled traffic and crash data as well as field observations to document operational and/or safety concerns within the project area. The findings of the traffic operations and safety evaluation will be summarized in a Traffic Technical Memorandum.

COMPANY will prepare intersection design studies of the selected alternate at each intersection. The IDS's will accompany the technical memorandum, and will be prepared according to the guidelines presented in Chapter 14 of IDOT's BDE Manual. IDS sheets will detail all elements of the proposed intersection geometry, traffic data, signalized intersection analysis, and AutoTurn analysis.

2.9 Drainage Design Calculations

COMPANY will perform the following calculations, which will be utilized in developing the drainage plans for the project:

A. Minor Culvert Analyses (10 locations)

COMPANY will design a total of ten (10) minor crossroad and driveway culverts using the rational method and HY-8. The latest Bulletin #70 rainfall data will be used. A Culvert Summary Report will be compiled.

B. Ditch Design

COMPANY will complete ditch designs and capacity analyses throughout the rural portion of the project along Deep Lake Road. The ditches will be designed using the rational method and a ditch design spreadsheet.

C. Storm Sewer Design and Inlet Spacing

The storm sewer sizing for the roundabouts will be determined using XP-SWMM and the latest Bulletin #70 rainfall data. The inlet spacing will also be determined and the results will be included as part of the drainage plan and profiles. A summary of the design will be included in the Culvert Summary Report to be provided under Task 2.10(A).

D. Stormwater Detention Analysis and Design

COMPANY will calculate the stormwater detention volume required for the corridor, based on the Lake County detention methodology using a hydrograph with the latest rainfall data. The detention volumes will be provided in up to eight (8) locations using basins or ditch storage. Eight (8) outlet structures will be designed.

E. Water Quality Analysis and Design

COMPANY will evaluate and determine the water quality volume required for the eight (8) detention basin outlets. The water quality volume will be provided in ditches or detention basins and seek to implement infiltration ditches or other BMPs, as appropriate. Runoff volume reduction (RVR) credits will be calculated and coordinated with LCSMC for each of the eight (8) outlets within the project limits.

F. Non-Riverine Floodplain

COMPANY will analyze three (3) depressional areas within the corridor to determine the tributary area, stage-storage-discharge relationship, storage volume, and base flood elevation. COMPANY will calculate the compensatory storage required for any fill in the depression as part of the project. COMPANY will use HEC-HMS for hydrology.

G. Drainage Investigation

COMPANY will investigate an existing drainage problem at the intersection of Deep Lake Road and North Avenue. Two options for correcting the drainage problem will be developed and coordinated with the CLIENT.

COMPANY will also review post construction topographic survey along the east side of Deep Lake Road south of Hidden Creek Drive (see Supplemental Survey section above for approximate limits). The CLIENT intends to address the drainage issue at this location during their planning resurfacing project in 2021.

The drainage investigations will include a field visit to verify and examine existing conditions.

H. Technical Memo

COMPANY will prepare a technical drainage memorandum that outlines the design methodology for the ditches, culverts, detention and storm sewer. The memo will support the LCSMC permit submittal for the detention design. No separate EDP and PDP will be prepared, the drainage plans will be used as a base for the tributary area delineations for the ditches, culverts and inlets.

2.10 Preliminary Design and 60% Plan Preparation

Upon completion of the initial design studies, COMPANY will proceed with preliminary design and prepare preliminary design plans. At the completion of the preliminary design phase, COMPANY will provide CLIENT a determination of land acquisition needs required to construct the improvements. The work to be performed by the COMPANY under

Preliminary Design shall consist of the following tasks:

A. Field Review

Preparation of materials for a field exam, participation in the field exam to review the existing conditions, take photographs, and assess how the proposed work may affect the project corridor.

For budget purposes, it is assumed that two (2) staff members of the COMPANY will attend the field exam.

B. Cover Sheet and General Information Sheets

Preliminary cover and general information sheets. The preliminary sheets will include the following: Index of Sheets, Index of Highway Standards, and Index of CLIENT Standards, Location Map, Project Number, Traffic Data and Design Designation.

C. Alignment, Ties & Benchmarks Sheets

Reference ties to the plan control points and the bench mark data used to develop the plans and to be preserved though out construction of the Project.

D. Typical Section Sheets

Existing and proposed typical sections to be used for the proposed improvements as well as a preliminary determination of the limits that each typical section will apply. The typical sections will include typical sections for the proposed grading and paving improvements for mainline and side streets.

E. Summary of Quantities Sheets

Preliminary determination of the bid items to be included in the Project, along with an estimate of quantity for each item.

F. Removal Plan Sheets

Develop existing condition and removal plan sheets at a scale of 1”=20’. These drawings will show existing features as identified during the topographic survey, private and municipal utility atlas information, and contract removal items for construction of the improvements.

G. Roadway and Utility Plan and Profile Sheets

Prepare preliminary plan and profile drawings at a scale of 1”=20’ horizontal and 1”=5’ vertical. These drawings will show base mapping, existing public and private utility locations, proposed bike path and proposed roadway alignments. Plans will also include existing and proposed right-of-way, easements, and side street profiles. Intersecting angles and station equation between mainline and side road reference line will also be shown. Profiles will show existing and proposed pavement elevations, ditch profiles, ditch elevations, vertical curve length and “K” value,

elevations for PVC, PVI, and PVT.

H. Staging and Traffic Control Sheets

Develop a suitable plan for construction staging and traffic control measures to be implemented during construction. The plan will include provisions for through traffic and temporary access to adjacent properties during construction. The traffic control devices, procedures, and layouts shall be as per the Manual on Uniform Traffic Control Devices (MUTCD).

In the event a roundabout design is selected, the staging and traffic control sheets will include detour plans for the full closure of the Deep Lake Road intersections with North Avenue and/or Depot Street. The detour will be enacted during the summer months when school is out of session. In the event, full closure of Deep Lake Road is implemented, COMPANY will coordinate with the CLIENT and the Antioch Fire Protection District to implement a temporary emergency vehicle access route through the construction zone(s) in order to maintain access for Antioch Fire Station #2 along the west side of Deep Lake Road between Depot Street and North Avenue.

The staging and traffic control sheets will include staging plans for the partial closure of intersections work areas in the event a traffic signal design is selected.

COMPANY will complete coordination with IDOT for any detour routes along Illinois Route 173 (see Meetings – IDOT Detour Committee).

I. Intersection Design Sheets

Prepare detailed intersection design plans at 1”=20’ for either a roundabout design or traffic signal design at the Deep Lake Road intersections with Depot Street and North Avenue. Plans will depict pavement markings, lane dimensions (width, tapers, storage, etc.), PC’s and PT’s, radii dimension and traffic signal conduit and equipment with appropriate callouts if necessary.

In the event a roundabout design is selected by the CLIENT, COMPANY will include design of the large roundabout directional signs (MUTCD D1-5) approaching each intersection.

J. Intersection Lighting / Traffic Signal Plan Sheets

As a subconsultant to the COMPANY, Ames Engineering (Ames) professionals will complete the intersection lighting design plans for the construction of a roundabout or traffic signal installation at the Deep Lake Road intersections with North Avenue and Depot Street. The intersection lighting plan sheets will consist of proposed lighting plans, wiring diagram/load table, and electrical details. There will be no lighting along Deep Lake Road between the intersections.

The electrical lighting design will also include photometric calculations, voltage drop calculations, and coordination with ComEd to establish new service.

In lieu of a roundabout design which will necessitate roadway lighting, traffic signal plan sheets will be prepared by the COMPANY consisting of proposed traffic signal

plans, cable plans, interconnect/communication (PASSAGE) plans, and traffic signal details.

The traffic signal design will also include coordination with ComEd to establish new service.

K. Structural Plan Sheets

Based upon project site review, we believe there will be proposed retaining walls and/or culvert wing walls needed at new bike path locations in order to avoid impacts to adjacent properties and/or environmentally sensitive areas such as wetlands. COMPANY has allotted for 500 feet of proposed retaining wall or culvert wing wall design.

We have assumed a cast in place concrete retaining wall supported on footings will be utilized. This type of wall appears feasible and allows for different railing/barrier types as needed to satisfy design criteria. We understand the wall will retain less than 7 feet of soil so no TS&L will be required. No wall type study is included.

It is assumed the wall can be constructed next to the existing pavement without temporary sheet pile or other designed temporary shoring. The propose bike path will be supported on the high side of the wall. Therefore, the wall will be topped with a CLIENT standard bicycle railing or the wall will extend above the path elevation topped with a shorter railing to attain the 4’-6” height required for a bike path.

COMPANY will provide General Plan and Elevations Sheets at the preliminary plan submittal.

L. Erosion Control Plan Sheets

Develop a suitable plan for pollution prevention measures to be implemented during construction. The plan will include provisions for the protection of adjacent properties and water ways during construction. The pollution prevention devices, procedures, and layouts shall be in compliance with Lake County Stormwater Management Commission and IEPA requirements.

M. Intersection and Sidewalk Grading Plans

Provide identification of geometric layouts for intersection plans, sidewalk ramps and driveway entrance detailed grading plans. The scale of these plan sheets will be 1"=10’. At the preliminary stage, spot elevations will be provided along the edge of pavement and back of walk/path to establish construction limits. Additional detailed grading information will be provided at the Pre-Final Stage.

N. Cross Sections

Generate preliminary cross sections at 1”=10’ horizontal and 1”=5’ vertical scale at key locations for each project segment. Mainline and side road cross sections will generally be developed at culvert locations, driveway entrances, and at fifty foot (50’) intervals depicting finished grade line elevation. Cross sections at the preliminary stage will show the existing ground elevations as well as the proposed grading,

including foreslope and backslope information, special subgrade treatment, ditches and other preliminary information.

2.11 Pre-Final Design – 90% Plan Preparation

Upon completion of the preliminary design and plan preparation, and receipt of CLIENT review comments, COMPANY will prepare pre-final design plans. The work to be performed by the COMPANY under pre-final design shall consist of the plan sheets identified in Section 2.10 above and the additional plan sheets and tasks identified below:

A. Pavement Markings & Landscaping

Develop pavement marking and landscaping plans. The pavement markings shall be as per the Manual on Uniform Traffic Control Devices (MUTCD) and CLIENT standards.

COMPANY will also develop detailed landscaping plans, planting schedules, and specifications for the installation of new trees within the project corridor to replace any trees removed by the proposed improvements. This task also includes the design and plan preparation for shrub and flower planting beds within the landscaped medians and center circle of the proposed roundabouts meeting CLIENT's base landscaping standards for roundabouts.

B. Schedule of Quantities

Develop a Schedule of Quantities for each Project, non-lump sum, pay item. Each Schedule of Quantity will be placed onto a plan sheet meeting CLIENT standards.

C. Structural Plan Sheets

Refine the structural design of the retaining walls and/or wing walls.

COMPANY will provide General Plan and Elevations Sheets, General Notes, Bill of Materials with quantities and pay items, Retaining Wall Layout and Footing Details, Retaining Wall Cross Sections, Step Details, Bar Bend Details and Bill of Bars, Bicycling Railing Details and Soil Boring Logs.

D. Intersection and Sidewalk Grading Plans

Refine the vertical elevation layouts of the intersections, sidewalk ramps and driveway entrances. Provide identification of geometric layouts and elevation data for all sidewalk ramps, including surveyed points to demonstrate ADA compliance. These plan sheets will also include driveway entrance detailed grading plans. The scale of these plan sheets will be 1"=10'.

E. Construction Details

Design and drafting of miscellaneous details not included in the other items. Included are such items as special grading details, details for special storm sewer or manholes within the highway right-of-way not included in the standard drawings, special paving details and other required details.

Construction details will also include applicable CLIENT details, IDOT Highway Standards, and IDOT District One Details.

F. Tabulation of Earthwork Quantities

This task consists of calculated earthwork volumes, indicating estimated earthwork volume for each proposed construction stage, tabulation and developing plan sheets for earthwork quantities.

G. Cross Sections

Cross sections prepared during preliminary design will be enhanced and updated during pre-final engineering. In accordance with the CLIENT's plan preparation guidelines, at the pre-final stage cross sections will depict detailed elements such as trees, power poles, underground utilities, existing and proposed drainage structures and pipes.

2.12 Final Design – 100% Plan Preparation

Upon completion of the pre-final design and plan preparation, and receipt of CLIENT review comments, COMPANY will prepare final design plans. The work to be performed by the COMPANY during final design shall include the following:

A. Cover Sheet and General Information Sheets

This item consists of finalizing the cover sheet and general information sheets.

B. Alignment, Ties & Benchmarks Sheets

This item consists of assembling reference ties to the plan control points and the bench mark data used to develop the plans and to be preserved though out construction of the project.

C. Typical Section Sheets

This item consists of final design and drafting of typical sections to be utilized for the improvements.

D. Summary of Quantities Sheets

This item consists of final bid items to be included in the Project.

E. Schedule of Quantities Sheets

This item consists of final quantity tabulations and estimate reference information for all non-lump sum pay items, including final earthwork tabulations consisting of calculated earthwork volumes, indicating estimated earthwork volume for each proposed construction stage, tabulation and developing plan sheets for earthwork quantities.

F. Roadway and Utility Plan and Profile Sheets

Provide final design and drafting of roadway and utility plan and profile sheets, new structure and pipes tables on each plan sheet, including the detail information required for plan approvals, and construction of the proposed improvements.

This task consists of the final design and drafting for the installation of new utilities and utility adjustments, which can be determined from coordination with the utility companies at the time of design.

G. Staging and Traffic Control Sheets

This item consists of final design and drafting of the construction traffic control and detour plans.

H. Intersection Design Sheets

This item consists of final design and drafting of the intersection design plans.

I. Intersection Lighting / Traffic Signal Plan Sheets

Final design and drafting of roadway lighting and/or traffic signals dependent upon selection of desired intersection improvement by the CLIENT. Included will be the determination of pole heights, pole spacing, mast arm lengths, light pole base designs, types of luminaries, electrical and wiring diagrams, and power sources meeting the minimum requirements of the CLIENT. Details will be provided for foundations and anchoring systems for the light structures.

J. Structural Plan Sheets

This item consists of final design and drafting of the structural retaining wall and/or culvert wing wall plans.

K. Erosion Control Plan Sheets

This item consists of final design and drafting of the erosion control plan.

L. Pavement Markings & Landscaping Plan Sheets

Final design and drafting of the permanent pavement marking and landscaping plans.

M. Intersection and Sidewalk Grading Plans

This item consists of the final design and drafting of spot elevations and geometric layouts for all non-typical pavement areas. Includes design for roundabout channelization. And also includes analyzing the effects proposed improvements will have on drainage, grades and on-site traffic circulation patterns.

N. Construction Details

This item consists of final design and drafting of the construction details, including CLIENT standard details, IDOT Highway Standards, and IDOT District One Details.

O. Tabulation of Earthwork Quantities

This task consists of final calculations and checks of earthwork volumes and updating the plan sheets and earthwork quantities.

P. Cross Sections

This item consists of the final design and drafting of individual cross-sections for the project as required in CLIENT's Plan Preparation Guidelines.

2.13 Project Specifications

COMPANY will prepare the contract special provisions and project specification manual. The document will include standard CLIENT Contract Specifications, as well as IDOT Supplemental, Recurring, BDE, District 1, and project specific special provisions. The project specific special provisions will be written to cover any items not covered by the CLIENT Contract Specification or IDOT Standard Specifications for Road and Bridge Construction.

Two (2) project specification submittals to the CLIENT are anticipated at the pre-final and final stages.

2.14 Estimates

A. Construction Cost Estimates

Opinions of probable construction cost will be developed and refined three (3) times during the design process so that the CLIENT has the most current cost estimate. These costs will be determined using pay items and the latest historical unit prices available for the area.

Three (3) cost estimate submittals to the CLIENT are anticipated at the preliminary, pre-final, and final stages.

B. Estimates of Time

The estimate of time will be developed based upon pay items and quantities, and will be used to develop the number of working days or completion date for the project.

Two (2) estimate of time submittals to the CLIENT are anticipated at the pre-final, and final stages.

2.15 Pavement Design

COMPANY will review the geotechnical report and coordinate the final pavement designs

meeting CLIENT standards. COMPANY will prepare pavement designs for mainline widening segments, new pavement areas at intersections, and mainline resurfacing.

2.16 Utility Coordination

As a sub consultant to the COMPANY, HBK Engineering, Inc. (HBK) professionals team with COMPANY to proactively communicate, perform utility locates, and coordinate utility protection, abandonment or relocation as part of the project. The utility coordination efforts will strive to eliminate delays during the construction phase. See Exhibit I attached for the HBK services proposal.

A. Initial Coordination/Data Collection

The proposed improvements will require coordination with public and private utilities that have facilities within the project corridor. HBK will coordinate with any utility companies/agencies found to have facilities located within the vicinity of the project limits through a JULIE Design Stage/Planning Information Request. A request will be made for these utilities to provide any available maps of existing facilities. It has been estimated that there will be up to ten public and private utilities to coordinate with for this project.

B. Utility Locating

Descriptions of Subsurface Utility Engineering (SUE) quality levels are derived from the FHWA website on subsurface utility engineering. The website describes American Society of Civil Engineers (ASCE) Standard *C-I 38-02, Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data*. There are four recognized quality levels of underground utility information ranging from Quality Level QL-D (the lowest level) to Quality Level QL-A (the highest level).

HBK will perform SUE Level D, and B locating of any utility facilities located within the project limits. Level D information will be obtained from utility atlases, JULIE requests, and other reliable sources. Qualified HBK staff will perform Level B locates of underground utilities within the project limits and mark them with appropriately colored paint and/or flags. HBK staff will coordinate with the COMPANY survey crew so that utility markings can be incorporated into their work (picked up by the COMPANY survey crew) in a timely manner.

SUE Level D and B locating shall include underground traffic control facilities at signalized intersections to the extent allowed by MOT limitations, worker safety, and the ability of the facilities to transmit a locating tone.

C. Utility Data Base Mapping

COMPANY will include the utility markings within the survey base map drawing. HBK will QA/QC the utility base map to verify utilities are depicted accurately.

D. Utility Plan Submittals

COMPANY will prepare preliminary, pre-final and final engineering plans for submission by HBK to private utility companies and the Village of Antioch to confirm

the location of their utilities within the project corridor and to address the potential abandonment, protection, or relocation of their facilities. HBK will also coordinate with the COMPANY design team to develop understanding the presence of utilities, their type, and possible issues with protecting and/or relocating those utilities.

E. Coordination

HBK will continue to work with COMPANY to coordinate with utility companies during the Phase II Engineering phase. Pre-final plans and electronic files will be sent to utility companies to review the proposed improvements and identify impacts/conflicts to their facilities. At the completion of Phase II Engineering, the final plans will be sent to utility companies for their use in preparing any relocation plans.

On an ongoing basis, throughout the project duration, COMPANY will respond to utility company's requests for information or respond to project specific questions generally within forty-eight (48) hours upon receipt.

F. Utility Coordination Meetings

The COMPANY and HBK will conduct two (2) joint meetings with representatives of the various utility companies. HBK will support the COMPANY in drafting and sending Notices of Interference and/or other required correspondence to notify utilities of the project and to begin their protection and relocation processes. HBK will also work with HR Green to coordinate with the roadway design team to integrate utility protection and relocation plans and timelines into the contract documents.

The meetings will be to advise of the nature and extent of the improvements and address any potential conflicts with existing or proposed utility systems. See Project Coordination Meetings below.

G. Final Design Coordination Meetings

COMPANY will also meet with representatives of the various companies on-site to review detailed design and potential options for utility relocation. COMPANY has allotted two (2) site review meetings with the private utility companies, in which one (1) staff member will attend. See Project Coordination Meetings below.

H. Utility Coordination Log

Throughout the project the COMPANY will maintain a utility coordination log which will document and record utility contact information, dates of plan submittals, dates of utility responses, and status of any outstanding questions or comments. The utility coordination log will be distributed to parties at each utility coordination meeting, and also be available at any time upon request for CLIENT review.

2.17 Letting / Bidding Assistance

COMPANY will assist the CLIENT in preparing bid documents and awarding a construction contract. The following tasks will be performed by the COMPANY as part of the letting / bidding assistance on this project:

- COMPANY will assist the CLIENT with the public bidding of the project in accordance with State statutes and CLIENT policies and procedures, including preparation of the Notice to Bidders, Computer Bid Form and delivery of the electronic plans and project specifications. The project will be made available to contractors electronically via the CLIENT Roadwork Bids web pages.
- COMPANY shall be available to answer questions from the CLIENT prior to the letting and shall provide addenda to the CLIENT as appropriate to interpret, clarify or expand the bidding documents. CLIENT will distribute any necessary bid addenda.

2.18 Project Coordination Meetings

Multiple coordination meetings will be required during the project. Anticipated meetings will be with the CLIENT, Village of Antioch, Antioch Fire Protection District, Antioch School District #34, IDOT, and the Lake County Stormwater Management Commission (LCSMC). HR Green will coordinate the meeting times and locations with the attendees, provide required exhibits, and include preparation of meeting minutes. The coordination and meetings are estimated below:

A. At CLIENT
- Project Kickoff meeting (1);
- Design Studies Review meeting (1);
- Geotechnical Pre-Bore meeting (1);
- Land Acquisition Kickoff meeting (1);
- Phase II Design Coordination meetings (2);
- LCSMC Coordination meeting (1); and
- Joint Utility Coordination meetings (2).

B. On-site
- Wetlands Site Review with LCSMC and/or Corps of Engineers (1); and
- Utility Coordination Review meetings (2).

C. At Village of Antioch with Antioch Fire Protection District & Antioch School District #34
- Design Studies Review meeting (1); and
- Final Design Review meeting (1).

D. At IDOT
- IDOT Detour Committee Meeting (1).

E. Meeting Requirements
- COMPANY will have two (2) representatives at meetings held at the CLIENT;
- COMPANY will have one (1) representative at meetings held on-site and at IDOT;
- COMPANY will have two (2) representatives at meetings held at Village of Antioch;
- COMPANY will prepare the meeting minutes for all meetings attended.

2.19 Public Outreach

The stakeholder involvement process will include two (2) Public Information Meetings (PIM). The first PIM will introduce the project to stakeholders, inform them of general alternatives available that have been analyzed, introduce land acquisition potential, and solicit attendees input. The second PIM will be held at the completion of pre-final design engineering to solicit any remaining input from the stakeholders as well as define the letting and construction schedule.

A. Public Information Meetings

Conduct two (2) public informational meetings (PIM) that will be attended by four (4) members of the COMPANY. The purpose of the meetings will be to provide a brief overview of the proposed improvements to the stakeholders and interested members of the community, a discussion of the design analysis and improvement plans, as well as gather information on the concerns, priorities and specific issues of the adjacent property owners and other affected parties. This task includes preparation of display materials and hand out information. The CLIENT will be responsible for reserving an appropriate meeting facility. COMPANY will maintain the list of attendees, documentation of written comments, and provide a written summary of each public information meeting.

Below is a more detailed list of anticipated tasks to be completed for each PIM:

- Selection and coordination with meeting venue, preferably close to the project.
- Preparation of invitation letters to stakeholders (mailing list developed by CLIENT).
- Preparation of PIM newspaper display advertisement.
- Preparation of PIM brochure.
- Mailing of PIM notification letters or postcards to area residents and businesses.
- Preparation of PIM exhibit boards.
- Typical Section and Concept Intersection renderings of the proposed conditions.
- ‘Dry Run’ with the CLIENT prior to PIM.
- Attendance at PIM meeting.
- Preparation of PIM summary and disposition of comments.
- Provide text and exhibits for CLIENT and appropriate municipal website(s).

In lieu of one (1) PIM, and at the direction of the CLIENT, COMPANY will conduct a project mailing campaign aimed at soliciting public feedback regarding potential project elements, schedule, and possibility other concerns that the area residents and corridor users may have. COMPANY will prepare, distribute and summarize responses as part of the mailing campaign. It is assumed the same mailing list for the PIM invite will be used for the mailing list.

2.20 Project Administration

A. Project Management

For the duration of this project, this task will involve the management oversight of the project which will include the on-going review of the project execution, work product, document control scope, schedule and budget, contract file management and preparation of monthly progress reports.

B. Quality Control Plan

Design peer reviews and constructability reviews will be performed by the COMPANY prior to all milestone submittals to the CLIENT.

C. Agreements

Upon direction from the CLIENT, the COMPANY will prepare up to two (2) intergovernmental agreements for the Project. The agreements may describe participating agency maintenance activities upon Project completion, and/or Project funding obligations. COMPANY will draft such agreement and have the documents reviewed by in-house legal staff prior to CLIENT submittal.

D. Project Monitoring

Maintain the system for monitoring progress and expenditures to allow monthly tracking by task.

E. Project Coordination

Maintain communications with the CLIENT and other designated representatives. Establish schedules, develop project goals, establish initial design parameters, promote a dialog between the various entities, improve the decision-making process, and expedite design development.

F. Post Design Services

After the contract has been awarded, COMPANY will attend a preconstruction meeting, respond to requests for information (RFI's) during construction, attend construction meetings, review structural shop drawings when applicable, and conduct site visits when requested by the CLIENT.

3.0 Deliverables and Schedule Included in this Agreement

Deliverables in this agreement include (but are not limited to) the items listed below:

1. Survey base map drawing generated in MicroStation V8i SS4.
2. Plat of Highways and legal descriptions for an assumed maximum of thirty five (35) adjacent parcels of land.
3. Monumented proposed right-of-way parcels with 5/8" steel bars with CLIENT ROW caps or other suitable markers.

4. Maximum of thirty-five (35) land conveyance documents in order to complete the acquisition and obtain title approval for the properties.
5. Geotechnical Soil Borings Report
6. Special Waste Database Records Search Report
7. Special Waste Soil Testing Results
8. IEPA LPC-663 for CCDD Certification
9. Disposal site pre-certification acceptance letters (2)
10. Wetlands Delineation and Permitting Package
11. IDNR EcoCAT Termination of Consultation
12. Threatened and Endangered Species Section 7 Report
13. Illinois Historic Preservation Agency Review
14. Non-motorized Feasibility Study
15. Intersection Alternatives Analysis for Deep Lake Road at Depot Street
16. Intersection Alternatives Analysis for Deep Lake Road at North Avenue
17. Typical Section and Concept Intersection Renderings
18. Culvert Summary Report
19. Drainage Design Technical Memorandum
20. Preliminary 60% Design Plans
21. Pre-Final 90% Design Plans
22. Final 100% Design Plans
23. Pre-Final and Final Project Specifications
24. Preliminary, Pre-Final and Final Construction Cost Estimates
25. Pre-Final and Final Estimates of Time
26. Utility Coordination Log
27. Notice to Bidders, Computer Bid Form and Delivery of the Electronic Plans and Project Specifications for bidding purposes
28. Contractor Award Recommendation Letter
29. Meeting Minutes of all meetings attended
30. Public meeting invitation letters, newspaper display advertisement, meeting brochure, public meeting exhibits, meeting summaries, and meeting disposition of comments
31. Project text and exhibits for CLIENT and appropriate municipal website(s)

The schedule below was prepared to include reasonable allowances for review and approval times required by the CLIENT and public authorities having jurisdiction over the project. This schedule shall be equitably adjusted as the project progresses, allowing for changes in the scope of the project requested by the CLIENT or for delays or other causes beyond the control of COMPANY.

The Consultant shall complete the following phases of the project in accordance with the schedule shown; assuming notice to proceed is issued by the CLIENT in March 2020. A detailed Gantt chart will be prepared and submitted to the CLIENT for approval at the project kickoff meeting matching the milestone submittals listed below. The end date for each task below represents the milestone deliverable date to the CLIENT.

Data Collection (Survey, Wetlands, Soils, Traffic Counts)	March 16, 2020 – June 12, 2020
Design Studies (Non-Motorized Feasibility and Intersection Analysis Studies)	June 8, 2020 – November 6, 2020
CLIENT Review – Design Studies Pre-final	August 28, 2020 – September 25, 2020

CLIENT Review – Design Studies Final	October 9, 2020 – October 23, 2020
Host Public Information Meeting #1	November 19, 2020
Preliminary 60% Plans & Cost Estimate	August 24, 2020 – February 26, 2021
Plats, Legal Descriptions & Appraisals	November 30, 2020 – February 26, 2021
CLIENT Review – Preliminary Plans, Plats, Appraisals	March 1, 2021 – April 2, 2021
ROW Negotiations (assuming 35 parcels)	April 5, 2021 – September 2, 2022
Pre-final 90% Plans, Specifications & Cost Estimate	April 5, 2021 – July 2, 2021
CLIENT Review – Pre-final Plans, Specifications & Estimates	July 6, 2021 – August 27, 2021
Host Public Information Meeting #2	September 16, 2021
Final 100% Plans, Specifications & Cost Estimate	October 4, 2021 – December 17, 2021
CLIENT Review – Final Plans, Specifications & Estimates	December 20, 2021 – February 11, 2022
Address Final Comments and 'For Bid' Preparations	February 14, 2022 – March 11, 2022
Letting Phase	September 2022 (per CLIENT schedule)
Construction Start	Spring 2023 (per CLIENT schedule)

If notice to proceed is given at a later date, the schedule shall be extended accordingly.

4.0 Items not included in Agreement/Supplemental Services

The following items are not included as part of this agreement:

Condemnation Support
Section 4(f) Review/Report
Irrigation Design
Floodplain Permitting
Wetland Banking Costs
CCDD exhibits (however, 'hot spot' locations will be shown and scheduled on the plans)
Travel Demand Modeling
Trip Generation for estimating future trips with new development
Construction Layout
Construction Engineering Services
SUE Level A Utility Locating Services

Supplemental services not included in the agreement can be provided by COMPANY under separate agreement, if desired.

5.0 Services by Others

Right-of-Way acquisition services will be performed by Santacruz. See Exhibit E herein.

Geotechnical soil borings, pavement cores, and investigation will be performed by Rubino. See Exhibit F herein.

Intersection lighting design will be performed by Ames. See Exhibit H herein.

Special waste database review, soils sampling and testing, and coordination with CCDD facilities will be performed by environmental specialist Winston Engineering. See Exhibit G herein.

Utility locating services and supplemental utility coordination efforts will be provided by HBK. See Exhibit I herein.

6.0 Client Responsibilities

Public Meeting venue rental, if needed.

Attend Public Meetings as needed.

Participate in project design reviews and provide written comments.

Provide available record drawings and other information on existing roadways and utilities.

Administer the bidding process with the electronic distribution and tracking of contractor plan holders.

Exhibit B

COST PLUS FIXED FEE
COST ESTIMATE OF CONSULTANT SERVICES

DF-824-034
REV 12/04

FIRM HR Green Inc. **DATE** 02/17/20

Project Deep Lake Road **OVERHEAD RATE** 1.6779

PRIME/SUPPLEMENT Prime **COMPLEXITY FACTOR** 0

ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENF (C)	IN-HOUSE DIRECT COSTS (D)	FIXED FEE (E)	Outside Direct Costs (F)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
Land Surveying, Plats & Legals	1220	50,017.48	83,924.33	2,700.00	18,506.47	29,675.00			184,823.28	16.89%
ROW Acquisition	0	0.00	0.00		0.00		218,000.00	218,000.00	218,000.00	19.92%
Geotechnical Investigation	0	0.00	0.00		0.00		36,053.92	36,053.92	36,053.92	3.29%
Special Waste Review	0	0.00	0.00		0.00		15,650.00		15,650.00	1.43%
Wetlands Investigation	96	5,040.59	8,457.61	161.00	1,865.02				15,524.21	1.42%
Environmental Review	30	1,009.47	1,693.79	150.00	373.50				3,226.77	0.29%
Non-motorized Feasability Study	90	5,048.20	8,470.37		1,867.83				15,386.40	1.41%
Intersection Alternatives Analysis	240	9,705.85	16,285.44	46.00	3,591.16	2,000.00			31,628.45	2.89%
Drainage Design Calculations	908	39,795.80	66,773.37	523.00	14,724.45				121,816.62	11.13%
Contract Plans	1858	74,899.91	125,674.57	671.18	27,712.97		34,418.00	34,418.00	263,376.63	24.06%
Project Specifications	100	6,106.54	10,246.17	60.00	2,259.42				18,672.13	1.71%
Estimates	18	1,098.16	1,842.60		406.32				3,347.08	0.31%
Pavement Design	9	413.47	693.76		152.98				1,260.22	0.12%
Utility Coordination	70	3,269.44	5,485.79		1,209.69		17,780.72		27,745.64	2.53%
Letting / Bidding Assistance	22	1,342.20	2,252.07		496.61				4,090.88	0.37%
Project Coordination Meetings	110	6,944.09	11,651.48	327.75	2,569.31				21,492.63	1.96%
Public Outreach	236	11,334.35	19,017.91	4,234.00	4,193.71				38,779.97	3.54%
Project Administration	388	24,110.74	40,455.41	161.00	8,920.97				73,648.12	6.73%
TOTALS	5,395	240,136.28	402,924.67	9,033.93	88,850.43	31,675.00	321,902.64	288,471.92	1,094,522.95	100.00%

DBE 26.36%

Exhibit C

DF-824-034
REV 12/04

AVERAGE HOURLY PROJECT RATES

FIRM HR Green Inc.
PTB
PRIME/SUPPLEMENT

DATE 02/17/20

SHEET 1 OF 4

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJECT RATES			Land Surveying, Plats & Legals			ROW Acquisition			Geotechnical Investigation			Special Waste Review			Wetlands Investigation		
		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	75.00	160	2.97%	2.22															
Senior Engineer	75.00	225	4.17%	3.13															
Project Manager	61.01	626	11.60%	7.08															
Project Engineer I	38.41	1151	21.33%	8.19															
Environ Engr	52.51	102	1.89%	0.99													96	100.00%	52.51
Staff Engineer II	33.65	438	8.12%	2.73															
Staff Engineer I	30.00	185	3.43%	1.03															
Lead Engineer	62.96	154	2.85%	1.80															
Group Leader	54.53	40	0.74%	0.40	40	3.28%	1.79												
PLS I	37.76	186	3.45%	1.30	170	13.93%	5.26												
PLS II	46.19	74	1.37%	0.63	70	5.74%	2.65												
SLS III	45.77	410	7.60%	3.48	410	33.61%	15.52												
SLS II	36.32	538	9.97%	3.62	530	43.44%	15.78												
Project Engineer II	57.86	118	2.19%	1.27															
Sr Design Tech	39.07	628	11.64%	4.55															
Design Tech I	26.89	242	4.49%	1.21															
Construction Engr II	39.00	40	0.74%	0.29															
Admin Assistant	29.73	78	1.45%	0.43															
TOTALS		5395	100%	$44.35	1220	100%	$41.00	0	0%	$0.00	0	0%	$0.00	0	0%	$0.00	96	100%	$52.51

Printed 2/17/2020

Exhibit C

DF-824-034
REV 12/04

AVERAGE HOURLY PROJECT RATES

FIRM HR Green Inc.
PTB
PRIME/SUPPLEMENT

DATE 02/17/20

SHEET 2 **OF** 4

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Environmental Review			Non-motorized Feasability Study			Intersection Alternatives Analysis			Drainage Design Calculations			Contract Plans			Project Specifications		
		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	75.00				6	6.67%	5.00	5	2.08%	1.56									
Senior Engineer	75.00										126	13.88%	10.41	16	0.86%	0.65	4	4.00%	3.00
Project Manager	61.01				60	66.67%	40.67	3	1.25%	0.76				181	9.74%	5.94	80	80.00%	48.81
Project Engineer I	38.41							178	74.17%	28.49	344	37.89%	14.55	596	32.08%	12.32			
Environ Engr	52.51																		
Staff Engineer II	33.65	30	100.00%	33.65							298	32.82%	11.04	110	5.92%	1.99			
Staff Engineer I	30.00													185	9.96%	3.35			
Lead Engineer	62.96							10	4.17%	2.62	92	10.13%	6.38	32	1.72%	1.08			
Group Leader	54.53																		
PLS I	37.76													16	0.86%	0.33			
PLS II	46.19													4	0.22%	0.10			
SLS III	45.77																		
SLS II	36.32													8	0.43%	0.16			
Project Engineer II	57.86													78	4.20%	2.43	16	16.00%	9.26
Sr Design Tech	39.07				24	26.67%	10.42	40	16.67%	6.51				430	23.14%	9.04			
Design Tech I	26.89										40	4.41%	1.18	202	10.87%	2.92			
Construction Engr II	39.00																		
Admin Assistant	29.73							4	1.67%	0.50	8	0.88%	0.26						
TOTALS		30	100%	$33.65	90	100%	$56.09	240	100%	$40.44	908	100%	$43.83	1858	100%	$40.31	100	100%	$61.07

Printed 2/17/2020

Exhibit C

DF-824-034
REV 12/04

AVERAGE HOURLY PROJECT RATES

FIRM HR Green Inc.
PTB
PRIME/SUPPLEMENT

DATE 02/17/20

SHEET 3 **OF** 4

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Estimates			Pavement Design			Utility Coordination			Letting / Bidding Assistance			Project Coordination Meetings			Public Outreach		
		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	75.00													24	21.82%	16.36	29	12.29%	9.22
Senior Engineer	75.00													6	5.45%	4.09	5	2.12%	1.59
Project Manager	61.01	18	100.00%	61.01	3	33.33%	20.34	25	35.71%	21.79	22	100.00%	61.01	68	61.82%	37.71	56	23.73%	14.48
Project Engineer I	38.41				6	66.67%	25.60	21	30.00%	11.52				6	5.45%	2.09			
Environ Engr	52.51													6	5.45%	2.86			
Staff Engineer II	33.65																		
Staff Engineer I	30.00																		
Lead Engineer	62.96																		
Group Leader	54.53																		
PLS I	37.76																		
PLS II	46.19																		
SLS III	45.77																		
SLS II	36.32																		
Project Engineer II	57.86																		
Sr Design Tech	39.07							24	34.29%	13.40							110	46.61%	18.21
Design Tech I	26.89																		
Construction Engr II	39.00																		
Admin Assistant	29.73																36	15.25%	4.53
TOTALS		18	100%	$61.01	9	100%	$45.94	70	100%	$46.71	22	100%	$61.01	110	100%	$63.13	236	100%	$48.03

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AVERAGE HOURLY PROJECT RATES

FIRM HR Green Inc.
PTB
PRIME/SUPPLEMENT

DATE 02/17/20

SHEET 4 **OF** 4

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Project Administration						0			0			0					
		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	75.00	96	24.74%	18.56															
Senior Engineer	75.00	68	17.53%	13.14															
Project Manager	61.01	110	28.35%	17.30															
Project Engineer I	38.41																		
Environ Engr	52.51																		
Staff Engineer II	33.65																		
Staff Engineer I	30.00																		
Lead Engineer	62.96	20	5.15%	3.25															
Group Leader	54.53																		
PLS I	37.76																		
PLS II	46.19																		
SLS III	45.77																		
SLS II	36.32																		
Project Engineer II	57.86	24	6.19%	3.58															
Sr Design Tech	39.07																		
Design Tech I	26.89																		
Construction Engr II	39.00	40	10.31%	4.02															
Admin Assistant	29.73	30	7.73%	2.30															
TOTALS		388	100%	$62.14	0	0%	$0.00	0	0%	$0.00	0	0%	$0.00	0	0%	$0.00	0	0%	$0.00

EXHIBIT D

DIRECT COST WORKSHEET

Deep Lake Road
Phase I and II
Lake County Division of Transportation
HR Green Project Number: 191481

DATE: **01/27/20**

Land Surveying, Plats & Legals

Mileage Rate:	$0.575			
Destination		Mileage Round-Trip	Number of Trips	
HRG (McHenry) to Project Site		40	100	
Subtotal:	$2,300.00			
Recorder Fees			$ 800.00	
80 - Monuments, Rebar w/ Cap x $5			$ 400.00	
35 - Title Commitments x $825			$ 28,875.00	Assumes 35 parcels
In House Direct Costs Subtotal:			$ 2,700.00	
Outside Direct Costs Subtotal:			$ 29,675.00	

Total Land Surveying, Plats & Legals **$32,375.00**

ROW Acquisition Assumes 35 parcels

Appraisals (Santacruz)	$ 94,500.00
Negiotiations (Santacruz)	$ 101,500.00
Consult/Mtg Services (Santacruz)	$ 1,000.00
Direct Billable Expenses	$ 21,000.00

Total ROW Acquisition **$218,000.00**

Geotechnical Investigation

Geotechnical (Rubino)	$ 36,053.92

Total Geotechnical Investigation **$36,053.92**

Special Waste Review

Special Waste (Winston)	$ 15,650.00

Total Special Waste Review **$15,650.00**

Wetlands Investigation

Mileage Rate:	$0.575		
Destination		Mileage Round-Trip	Number of Trips
HRG (McHenry) to Project Site		40	7
Subtotal:	$161.00		

Total Wetlands Investigation **$161.00**

Environmental Review

EcoCAT Fee	$ 150.00

Total Environmental Review **$150.00**

Intersection Alternatives Analysis

Mileage Rate: $0.575

Destination	Mileage Round-Trip	Number of Trips
HRG (McHenry) to Project Site	40	2

Subtotal: $46.00

Weekday Traffic Data (MioVision - 2 locations) $ 2,000.00

In House Direct Costs Subtotal: $ 46.00
Outside Direct Costs Subtotal: $ 2,000.00

Total Intersection Alternatives Analysis $2,046.00

Drainage Design Calculations

Mileage Rate: $0.575

Destination	Mileage Round-Trip	Number of Trips
HRG (McHenry) to Project Site	40	1

Subtotal: $23.00

Hydraulic Report and Exhibits (Copies to IDNR-OWR) $ 500.00

Total Drainage Design Calculations $523.00

Contract Plans

Lighting (Ames) $ 34,418.00 Assumes RAB Lighting at both intersections

Subtotal: $34,418.00

Mileage Rate: $0.575

Destination	Mileage Round-Trip	Number of Trips
HRG (McHenry) to Project Site	40	1

Subtotal: $23.00

Printing Cost (bond), per sq. ft.: $0.45
Reduced Sheets (11"x17"), sq. ft.: 1.3
Full Size Sheets (22"x34"), sq. ft.: 5.2

Total Number of Sheets (Preliminary Submittal) = **158**
Total Number of Sheets (Pre-Final Submittal) = **198**
Total Number of Sheets (Final Submittal) = **198**

Preliminary Submittal

	LCDOT	Antioch	Total
Reduced Plan Sets	1	1	2
Full-Size Plan Sets	0	0	0

Subtotal: $184.86

Pre-Final Submittal

	LCDOT	Antioch	Total
Reduced Plan Sets	1	1	2
Full-Size Plan Sets	0	0	0

Subtotal: $231.66

Final Submittal

	LCDOT	Antioch	Total
Reduced Plan Sets	1	1	2
Full-Size Plan Sets	0	0	0

Subtotal: $231.66
Printing Subtotal: $648.18

In House Direct Costs Subtotal: $671.18

Total Contract Plans **$35,089.18**

Project Specifications

Specs/Proposal: $60.00 ($10.00 per specifications/proposal booklet X 6 sets)

Total Project Specifications **$60.00**

Project Coordination Meetings

Mileage Rate: $0.575

Destination	Mileage Round-Trip	Number of Trips	
HRG (McHenry) to LCDOT	40	8	
HRG (McHenry) to IDOT D1	50	1	
HRG (McHenry) to Project Site	40	3	
HRG (McHenry) to Antioch	40	2	Assumes Project Site to be Average Mileage

Total Project Coordination Meetings **$327.75**

Utility Coordination

Utility Locates and Coordination (HBK) $ 17,780.72

Total Utility Coordination **$17,780.72**

Public Outreach

Postage and Shipping Allowance: $800.00

Mileage Rate: $0.575

Destination	Mileage Round-Trip	Number of Trips
HRG (McHenry) to Antioch	40	8

Subtotal: $184.00

Printing Cost (graphics foamboard), per each (22x34): $125.00

Total Number of Exhibits (PIM 1 & PIM 2) = **26**

PIM 1 AND PIM 2

	Total
Reduced Plan Sets	0
Full-Size Plan Sets	26

Subtotal: $3,250.00

Total Public Outreach **$4,234.00**

Project Administration

Mileage Rate: $0.575

Destination	Mileage Round-Trip	Number of Trips
HRG (McHenry) to LCDOT	40	1
HRG (McHenry) to SITE	40	6

Subtotal: $161.00

Total Project Administration **$161.00**

GRAND TOTAL: **$362,611.57**

Illinois Department of Transportation
2300 South Dirksen Parkway / Springfield, Illinois / 62764

August 19, 2019

Subject: PRELIMINARY ENGINEERING
Consultant Unit
Prequalification File

David Dougherty
HR Green, Inc.
5525 Merle Hay Road
Suite 200
Johnston, IA 50131

Dear David Dougherty,

We have completed our review of your "Statement of Experience and Financial Condition" (SEFC) which you submitted for the fiscal year ending Dec 28, 2018. Your firm's total annual transportation fee capacity will be $78,400,000.

Your firm's payroll burden and fringe expense rate and general and administrative expense rate totaling 167.79% are approved on a provisional basis. The rate used in agreement negotiations may be verified by our Office of Quality Compliance and Review in a pre-award audit.

Your firm is required to submit an amended SEFC through the Engineering Prequalification & Agreement System (EPAS) to this office to show any additions or deletions of your licensed professional staff or any other key personnel that would affect your firm's prequalification in a particular category. Changes must be submitted within 15 calendar days of the change and be submitted through the Engineering Prequalification and Agreement System (EPAS).

Your firm is prequalified until December 28, 2019. You will be given an additional six months from this date to submit the applicable portions of the "Statement of Experience and Financial Condition" (SEFC) to remain prequalified.

Sincerely,
Jack Elston, P.E.
Bureau Chief
Bureau of Design and Environment

SEFC PREQUALIFICATIONS FOR HR Green, Inc.

CATEGORY	STATUS
Special Studies - Traffic Signals	X
Special Studies - Signal Coordination & Timing (SCAT)	X
Special Services - Construction Inspection	X
Special Studies - Safety	X
Location Design Studies - Reconstruction/Major Rehabilitation	X
Location Design Studies - Rehabilitation	X
Special Services - Electrical Engineering	X
Special Studies - Pump Stations	X
Special Services - Surveying	X
Highways - Freeways	X
Highways - Roads and Streets	X
Location Design Studies - New Construction/Major Reconstruction	X
Special Services - Landscape Architecture	X
Special Studies - Feasibility	X
Special Services - Mechanical	X
Special Services - Sanitary	X
Structures - Highway: Advanced Typical	X
Structures - Highway: Typical	X
Structures - Highway: Simple	X
Structures - Railroad	X
Environmental Reports - Environmental Impact Statement	X
Environmental Reports - Environmental Assessment	X
Special Studies - Traffic Studies	X
Hydraulic Reports - Waterways: Typical	X
Hydraulic Reports - Waterways: Complex	X
Special Studies - Location Drainage	X
Hydraulic Reports - Pump Stations	X

X	PREQUALIFIED
A	NOT PREQUALIFIED, REVIEW THE COMMENTS UNDER CATEGORY VIEW FOR DETAILS IN EPAS.
S	PREQUALIFIED, BUT WILL NOT ACCEPT STATEMENTS OF INTEREST

EXHIBIT E

PROPOSAL FOR LAND ACQUISITION SERVICES

Lake County Division of Transportation

H.R. Green

Deep Lake Road
Depot Street to
Wisconsin State Line

Santacruz Land Acquisitions

222 Northfield Road · Suite 201
Northfield, IL 60093
www.santacruz-associates.com

Contact:
J. Steve Santacruz
847-868-9620
jsteve@santacruz-associates.com

1 EXECUTIVE SUMMARY

We understand the importance of keeping on schedule. On-time lettings gives the Lake County Division of Transportation, the Local Public Agency ("LPA") the best use of its resources and strengthens the efficiencies in the implementation of its roadway improvement program. To achieve your goals, it is critical that your land acquisition consultant understands the importance and addresses three critical issues in your acquisition of right of way:

- Deliver the right of way on-time to meet the letting
- Manage the acquisition risks, including the cost of condemnation litigation
- Compliance with land acquisition policies and procedures and FWHA policies that effect the certification and funding of your project.

CRITICAL ISSUE 1: DELIVER THE RIGHT-OF-WAY ON-TIME TO MEET LETTING

Delivery of right of way on-time keeps the project on its letting schedule. We understand that nothing is more important to the LPA.

We have assembled a team of industry leading right of way professionals that have years of experience working on land acquisition projects with the understanding of what needs to be done to complete an acquisition on time.

Santacruz Land Acquisitions ("**Santacruz**") will work with the staff for the LPA and/or H.R. Green, Engineer for the LPA, ("Consultant") to develop a land acquisition plan for the reconstruction of Deep Lake Road from Depot Street to the Wisconsin State Line (the "Project") to assure that the goals are met.

All of these efficiencies lead to ways in which we minimize our time with an acquisition and translate to your project staying on schedule.

CRITICAL ISSUE 2: MANAGE THE ACQUISITION RISKS

Equally important as the scheduled letting is the acquisition budget for the Project. Our team will suggest ways to minimize impacts and reduce costs in challenging acquisitions. We will also work with the LPA to minimize the condemnation referrals that impact the budget for this Project. At the same, our team will quickly identify parcels in the very beginning of the process that have title issues that can only be resolved through condemnation so that the team can develop strategies on moving the land acquisition process forward.

Your land acquisition consultant needs to have knowledge of the legal requirements necessary to position an agency for condemnation. Our team possesses that knowledge and has years of experience providing "expert witness" testimony in these matters.

Santacruz is made up of skilled right of way professionals with a vast background in real estate and civil engineering with respect to transportation projects which gives us the ability to recognize issues and resolve them before they create delays.

CRITICAL ISSUE 3: COMPLIANCE WITH GOVERNMENT REGULATIONS

All land acquisition services must be performed in accordance with the Uniform Relocation Assistance and Real Property Act. In addition, we are familiar with IDOT's land acquisition guidelines, policies and procedures.

We apply our team's extensive collective decades of experience complying with federal and state laws and maximizing the team's knowledge of the land acquisition policies of IDOT.

ADDITIONAL COMPONENT OF OUR PROPOSAL: BEP UTILIZATION

Santacruz is a BEP with Central Management Services, a DBE with IDOT and an MBE with Cook County and the City of Chicago.

TEAM ORGANIZATION

Santacruz has assembled a versatile team of professional right of way consultants with the experience to deliver successful land acquisition services and meet the letting dates of the project. Javier Santacruz will lead the team as Project Manager. The team brings a wealth of experience in land acquisition for governmental agencies and related real estate law and civil engineering disciplines to assure the proper handling of even the most complicated of acquisitions. Additionally, the key members of the team have collaborated in the past on projects.

WHY SANTACRUZ LAND ACQUISITIONS?

As you review our proposal, you will see that the team that Santacruz Land Acquisitions has assembled is versatile, experienced and qualified to deliver the full scope of the land acquisition needs for the LPA. What sets apart our team is:

- Years of successful on-time delivery of right of way land acquisition services to various other agencies
- Diverse set of real estate acquisition disciplines including backgrounds in law and civil engineering
- Extensive experience with complex valuations and acquisitions
- Title review experience, including familiarity with all types of recorded documents affecting real estate and knowledge on how to the clear title
- Experience in reviewing plats and legal descriptions, as well as an ability to review and understand roadway construction plans
- Expertise with the Uniform Relocation Assistance and Real Property Act of 1970, as amended (Uniform Act), Illinois Eminent Domain Act (735 ILCS 30), IDOT Land Acquisition Guidelines.
- Familiarity with IDOT policies and procedures related to land acquisition and appraisals.

SUMMARY

With a long history of successful delivery of a variety of right of way projects on-time, within budget and to our client's satisfaction, we look forward to the opportunity to assist the LPA with its land acquisition needs

COMPENSATION

Santacruz Land Acquisitions shall be entitled to the compensation as shown on the attached schedule. Our cost proposal, based on **thirty-five** (**35**) projected parcels of right-of-way, is as follows:

APPRAISALS:	**$94,500.00**.
NEGOTIATIONS:	**$101,500.00**.

As directed, Santacruz Land Acquisitions shall invoice the LPA or Consultant for any fees and charges related to the acquisitions including, without limitation, (i) the cost of the later date title commitments, (ii) the cost of title insurance policies obtained on the parcels to be acquired, (iii) the cost of recording any necessary documents to complete the conveyance and obtain clear title, (iv) lender's fees related to the processing of any partial releases needed to provide clear title, and (v) land trustee processing fees. Santacruz Land Acquisitions shall include **$600.00** per parcel for these charges. Santacruz Land Acquisitions shall pay any such fees and charges in excess of the **$600.00** per parcel allowance for which Santacruz Land Acquisitions shall be entitled to additional compensation in the amount of any such payments pursuant to a separate work order issued.

Santacruz Land Acquisitions will attend and/or participate in up to four (4) hours of meetings and conference calls for consultations on the project. This will include, without limitation, kick-off meetings, planning discussions, project strategy development and review of parcels with acquisition challenges.

Based on the projected total number of parcels of right-of-way to be acquired for the Project, the land acquisition negotiation services provided herein are offered a cost not to exceed of **$218,000.00** as follows:

Land Acquisition Services	**$196,000.00**
Consultation/Meeting Services	**$1,000.00**
Direct Billable Expenses	**$21,000.00**

2 TECHNICAL APPROACH

Santacruz shall perform all necessary services in the preparation of appraisals and review appraisals and the negotiation of the acquisition of necessary properties required for the completion of the Project. All services shall be performed in accordance with the policies and procedures of IDOT, as applicable, the Uniform Act and the Illinois Eminent Domain Act.

Santacruz agrees to perform the services as set forth herein as well as furnish and deliver to the LPA the final reports accompanied by all necessary documents needed for recordation and/or necessary for eminent domain proceedings. **The process described in this section has been the roadmap to many successful right of way projects for Santacruz helping us to help you keep your projects on-time and within budget.**

LAND ACQUISITION CRITICAL PATH STEPS – "OUR ROAD MAP"

Task 1: Notice to Proceed

Our services start after authorization to proceed from the LPA and IDOT (as may be necessary).

Task 2: Kick-off Meeting

Santacruz will meet with the LPA and/or Consultant to discuss the Project, identify issues and develop any necessary strategies to assure the timely completion of the Project.

Task 3: Delivery and Review of Project Information

The LPA or Consultant will provide Santacruz with plats of highway, legal descriptions, the most recent title commitments and any other pertinent information regarding the property owner for each parcel assigned for acquisition. In addition, the LPA or Consultant will also provide us with a set of project plans, including, (i) plan and profile, (ii) drainage and utilities, (iii) pavement markings and (iv) cross sections.

Task 4: Introductory Notice to Owners

The Appraiser will notify the property owner of the proposed taking and will invite the property owner to be present during the inspection by the appraiser.

Task 5: Appraisal

The Appraiser shall make a detailed inspection of the properties and make such investigations and studies as are consistent with industry standard and necessary to derive sound conclusions for the preparation of appraisal reports. All appraisal work shall be completed within eight to ten weeks after commencement.

The Appraiser shall assist in analyzing and responding to valuation information provided by a property owner in support of a counter offer.

As necessitated by a change of ownership, a revision to the right of way or for condemnation purposes, Santacruz will furnish and deliver updated or revised appraisals. Such requests may be pursuant to a separate work order.

Task 6: Negotiation and Acquisition

Santacruz shall commence negotiations after approval by the LPA of the appraisals and the amount of just compensation to be offered to the property owner.

Before contacting the property owner, Santacruz will prepare and send the introductory letter to the property owner on the LPA's letterhead.

Santacruz will present the property owner with an offer package, which shall contain the Offer to Purchase and other documents to assist the property owner with reviewing the right-of-way request.

Santacruz Land Acquisitions will make all reasonable efforts to complete the acquisition of the right-of-way from the property owner.

Santacruz will not have any authority to determine administrative settlements. Santacruz will consult with the LPA for approval of any counter offers and upon acceptance by the LPA of any such counter offer, Santacruz will prepare the necessary documentation for administrative settlement.

Santacruz will review the title commitment provided for each parcel to determine the liens and encumbrances that will need to be addressed in order to complete the acquisition process for the LPA.

If, during its discussions with the property owner, errors in the plans are discovered or the property owner requests design changes, Santacruz will immediately notify LPA or Consultant with this information. At any time during negotiations for situations involving design changes, errors in plans or for any other reason, if requested by LPA or Consultant, Santacruz will cease negotiations on certain parcels until corrected information or further instruction is provided to Santacruz.

Upon successful negotiations with the property owner, Santacruz will prepare all necessary conveyance documents in order to complete the acquisition and obtain title approval for the property. Santacruz will submit the completed parcel file with original conveyance documents, any documents necessary for title clearance, the Negotiator's Log documenting all negotiation activities, copies of all correspondence with the property owner, title commitments, plats, and all other documentation as required by the LPA and IDOT (as necessary).

Condemnation Support

Santacruz understands that appearances in court and/or pretrial conferences, which may include depositions, and preparation for litigation or pre-trial conferences may be required by the LPA so that it may complete the acquisition of the property through condemnation.
In the event, after making every reasonable effort to contact and negotiate with a property owner, Santacruz is unable to obtain a settlement for the acquisition of the right-of-way, Santacruz shall refer the parcel to the LPA for acquisition by condemnation.

In such case, at the request of the LPA or its trial counsel, the Appraiser assigned to appraise the parcel shall make any such appearances or complete such preparation work in order to assist with this process. In addition, at the request of the LPA or its trial counsel, the Negotiator assigned to

negotiate the parcel shall make any such appearances or complete such preparation work in order to assist with this process. Such requests for trial appearances or condemnation support will be pursuant to a separate work order.

PERSONNEL

The experience and talent of the right of way professionals that make up the team for Santacruz will, to a large extent, be the basis for the success of keeping this Project on-time and within budget. Santacruz brings over twenty-five years of right of way acquisition experience. Santacruz has worked on thousands of acquisition parcels for ISTHA, IDOT, Cook, Kane, Lake, and Will Counties. We have also worked for numerous township and municipalities. Santacruz has years of experience handling some of the most complex land acquisition transactions.

The Santacruz staff includes two negotiators and two paralegals with years of experience in acquiring a variety of right-of-way parcels.

PRIOR EXPERIENCE

Santacruz Land Acquisitions was founded in 1992 and has grown to be one of the most dependable right-of-way negotiation firms in Illinois. Santacruz has been providing comprehensive right-of-way solutions, including negotiation activities and the coordination of the valuations of parcels for various public agencies.

3 EXHIBITS

a. Pricing Schedule

Compensation for Services

Appraisal Services

Appraisals	$2,700.00
Revision to appraisal due to change in ROW or plans[1]	$1,500.00 - $4,000.00

Negotiation Services

Negotiation and acquisition services for Right of Way including, without limitation, documentation of conveyance of property interest	$2,900.00
Additional negotiations due to change in ownership or plans[1]	$1,900.00 - $3,500.00

Witness Services

Rate for each ½ day in pretrial conference or in court for Negotiator[1]	$1,000.00
Rate for each ½ day in pretrial conference or in court for Appraiser[1]	$1,000.00
Hourly rate for consultation not otherwise specifically provided for herein	$250.00

Title Services (if applicable)

Later date commitment – In addition to actual recording costs + Administrative fee	$25.00
Title insurance policies – In addition to actual recording costs + Administrative fee	$25.00
Recording of Documents – In addition to actual recording costs + Administrative fee	$25.00
Copies of recorded documents – In addition to actual copying costs & research fees + Administrative fee	$25.00

[1] May requires supplemental work order.

rubino ENGINEERING INC.

January 30, 2020

To: Jeffrey Strzalka, PE
Project Manager – Transportation
420 N. Front Street
McHenry, IL 60050-5528

Re: Proposal - Geotechnical Exploration
Proposed Deep Lake Road Widening
Antioch, Illinois

Proposal No. Q19.507g_REV1

Via email: jstrzalka@hrgreen.com

Dear Mr. Strzalka

Rubino Engineering, Inc. (Rubino) is pleased to submit the following proposal to provide geotechnical engineering services for the above referenced project. Rubino received a request for proposal from Jeff Strzalka of HR Green via email on December 17, 2019.

PROJECT UNDERSTANDING

Rubino understands that Lake County Division of Transportation is planning on widening Deep Lake Road from Depot St north to the Wisconsin Border. The two intersections, Depot St and North Ave, are part of this program and will have improvements done as well. HR Green has requested Rubino collect soil borings along Deep Lake Rd at approximately 500 ft intervals and 4 borings at North Avenue, and 3 borings at Depot Street.

Information received:

- RFP Email from Jeffrey Strzalka of HR Green on December 17, 2019
- Revision email from Jeffrey Strzalka of HR Green on January 27, 2020

Should any of the information on which this proposal has been based, including as described above, be inconsistent with the planned construction, Rubino requests to be contacted immediately in order to make any necessary changes to this proposal and scope of work.

SCOPE OF SERVICES

The following sections outline the scope of services developed based on the information provided by the client and the information listed above in order to provide a geotechnical exploration the planned project. The exploration will be performed in general accordance with both the requested proposal information and Rubino's current understanding of the project.

Site Access and Traffic Control

Based on current site topography, surface conditions, and project discussions, Rubino anticipates that the project site will be accessible to track-mounted Geoprobe 7822DT drilling equipment.

Traffic control will consist of cones, approach signage, and flaggers. Rubino anticipates that the drill rig will require full lane closure.

Boring Locations

The approximate proposed boring locations are shown below. Rubino recommends that the borings be located and surveyed for elevation by others prior to drilling. If the borings cannot be surveyed, Rubino will locate the borings in the field by measuring distances from known, fixed site features.

Exhibit 1) Proposed boring locations within the grassy area along Depot St and Deep Lake Rd

Exhibit 2) Proposed borings within the grassy area along Deep Lake Rd

Exhibit 3) Proposed boring locations within the grassy area along Deep Lake Rd and North Ave

Exhibit 4) Proposed boring locations within the grassy area along Deep Lake Rd, ending at Wisconsin Border

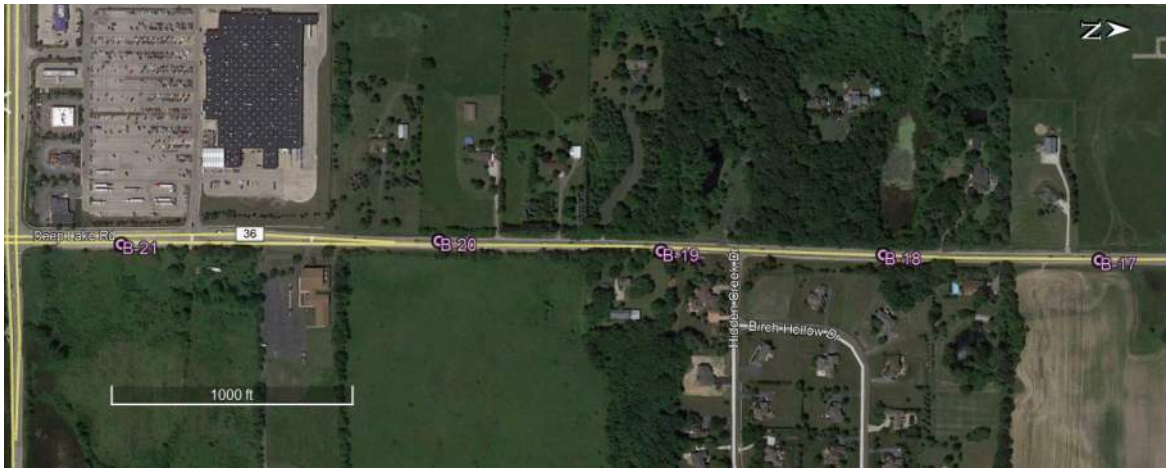


Exhibit 5) Proposed boring locations within the grassy area along Deep Lake Rd, ending between IL 173 and Depot St.

Boring Depths

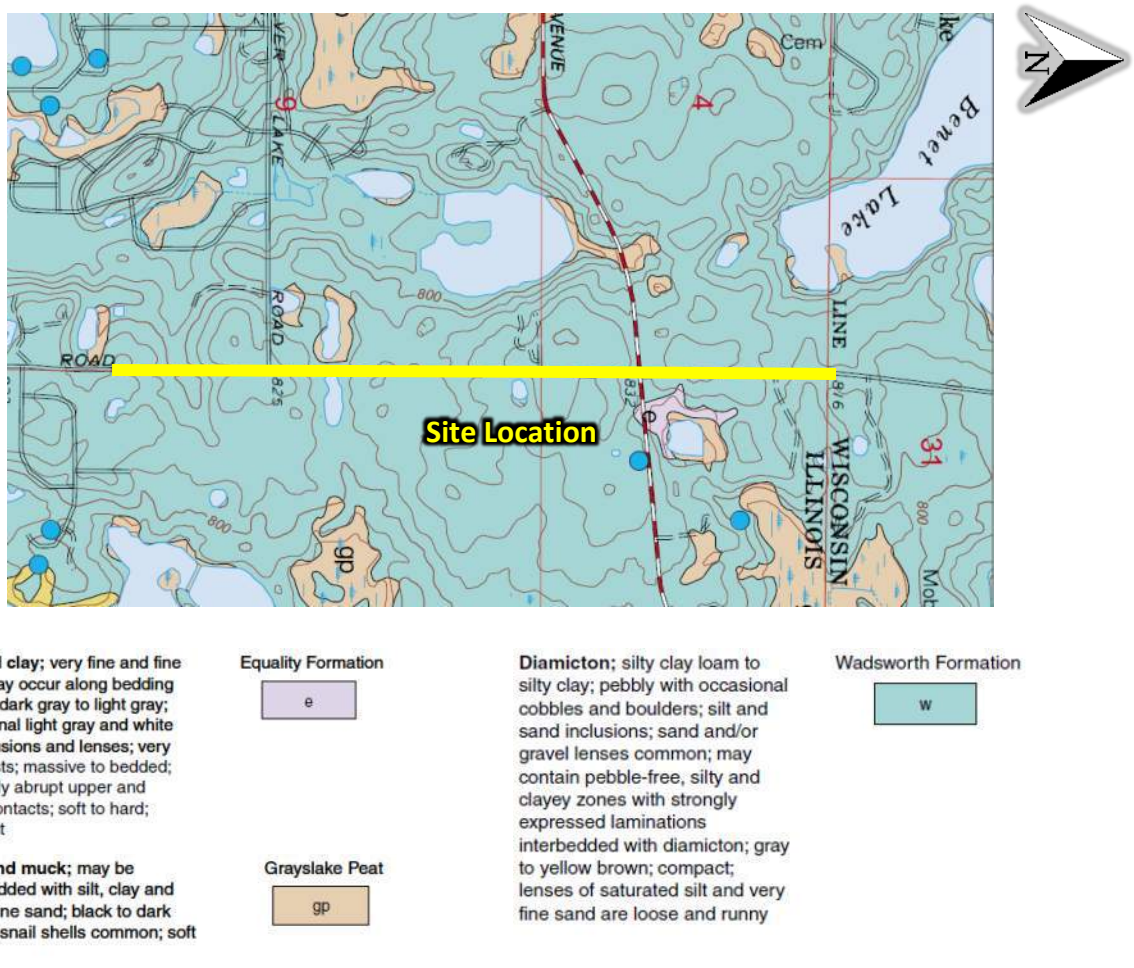
To obtain data to evaluate subsurface conditions within the proposed development/construction areas, Rubino proposes to drill soil borings as specified below.

NUMBER OF BORINGS	DEPTH (FEET BEG*)	LOCATION
18	10	Deep Lake Rd
2	10	North Avenue
1	10	Depot St
10	10	Peat Probes

*BEG = below existing grade

Site Surficial Geology

Rubino has researched the surficial geology along the site location and discovered there is a likelihood of encountering soft, decomposed organic or post glacial lake deposits. If soft organic materials are encountered Rubino recommends to complete peat probes to determine the limits of the soft material.



Silt and clay; very fine and fine sand may occur along bedding planes; dark gray to light gray; occasional light gray and white silt inclusions and lenses; very few clasts; massive to bedded; generally abrupt upper and lower contacts; soft to hard; compact

Equality Formation: e

Peat and muck; may be interbedded with silt, clay and some fine sand; black to dark brown; snail shells common; soft to firm

Grayslake Peat: gp

Diamicton; silty clay loam to silty clay; pebbly with occasional cobbles and boulders; silt and sand inclusions; sand and/or gravel lenses common; may contain pebble-free, silty and clayey zones with strongly expressed laminations interbedded with diamicton; gray to yellow brown; compact; lenses of saturated silt and very fine sand are loose and runny

Wadsworth Formation: w

Exhibit 5) Site Surficial Geology along Site Location; modified from "Surficial Geology of Antioch Quadrangle" by A. Stumph and M. Barnhardt, 2005

SPT - Soil Sampling

Soil sampling will include split-barrel samples (ASTM D 1586) or thin-walled tube samples on cohesive soils (ASTM D 1587) at 2 ½ - foot intervals to a depth of 15 feet and 5 - foot intervals thereafter.

If unsuitable bearing soils are encountered within the borings as proposed herein, the borings will be extended an additional 5 feet to attempt to end the borings in suitable soils. If unsuitable soils persist at the end of an additional 5 feet the client will be contacted prior to demobilizing.

Unsuitable soils will be defined by field personnel using the following criteria:

- Cohesive soils with an N value less than or equal to 6.
- Granular soils with an N-value less than 10.
- Black cohesive or silty soil with visible signs of organic matter and / or organic odor and low blow counts as described above.

Completion of Borings

Upon completion of drilling, the borings will be backfilled with soil cuttings and capped with similar existing material or asphalt cold patch as applicable. Some damage to ground surface may result from the drilling operations near the work areas and along ingress/egress pathways. Rubino will attempt to minimize such damage, but no restoration other than backfilling the soil test borings is included.

It should be noted that over time, some settlement may occur in the bore hole. If Rubino is requested to return to the site for the purpose of filling any bore holes that may have settled, additional time and material charges may apply.

Laboratory Testing

The soil samples obtained during the field exploration program will be transported to the laboratory for classification and a limited number of laboratory tests. The nature and extent of the laboratory testing program is at the discretion of Rubino Engineering, Inc. and will depend upon the subsurface conditions encountered during drilling.

Laboratory testing will be performed in accordance with applicable AASHTO or ASTM procedures and may include examination of selected samples to evaluate the soils' index properties and relative strength characteristics.

Based on the proposed quantity of soil borings, anticipated depths, and project type, a list of the anticipated laboratory tests are summarized below.

LABORATORY TEST	ESTIMATED QUANTITY	SAMPLE TYPE
Atterberg Limits	5	Split spoon, bulk, or Shelby Tube
Hydrometer	1	Split spoon, bulk, or Shelby Tube
Natural Moisture Content	124	Shelby Tube, Cohesive Samples

Organic Content	15	Split spoon, bulk, or Shelby Tube

ROADWAY GEOTECHNICAL REPORT (RGR)

Upon completion of field and laboratory work, Rubino will prepare a roadway geotechnical engineering report (RGR) using the collected data. The geo report will include the following:

- *Summary of client-provided project information and report basis*
- *Overview of encountered subsurface conditions*
- *Overview of field and laboratory tests performed including results*
- *Rodway Geotechnical Report in accordance with the IDOT Geotechnical Manual*
- *Construction considerations, including temporary excavation and construction control of water*

An electronic copy of the report will be provided. The report will be addressed to HR Green.

PROJECT SCHEDULE

Rubino proposes to initiate work on this project within 5 working days after receiving written authorization to proceed and we will follow the schedule below in order to complete the project:

Task	Number of Working Days
Utility clearance and rig mobilization	10
Field work including site layout and drilling	5
Laboratory Testing	10
Preparation of the Geotechnical Report	10 – 15

Project schedules can be affected by weather conditions and changes in scope. If the report needs to be delivered by a specific day, please notify us as soon as possible. Preliminary verbal recommendations can be made to appropriate parties upon completion of the field investigation and laboratory testing. Rubino will need to receive a signed copy of this proposal intact prior to mobilizing the drill rig.

SPECIAL INSTRUCTIONS

Rubino will coordinate contacting the Utility “One-Call” for public utility clearance prior to the start of drilling activities. It is Rubino’s experience that this service does not mark the locations of privately owned utilities. This proposal is based on private utility lines and other subsurface appurtenances being located in the field by others prior to our mobilization.

FEES

Rubino proposes to charge the fee for performance of the outlined scope of services on an estimated basis using the IDOT BDE 3606 and BDE 436 forms, which are attached. Based on the scope of services outlined above, the CECS forms total $36,053.92.

Please see the attached fee schedule for additional unit rates for services requested after issuing the geotechnical report (drawing / spec review, scope or site layout change, etc.).

Scope Limitations

Project services do not include a site evaluation to determine the presence or absence of wetlands, hazardous substances, or toxic materials.

Rock coring is not included in the scope of this exploration, therefore, the character and continuity of refusal materials, if encountered, can be determined only with a more comprehensive scope of services. Therefore, the borings will be advanced to the depths referenced above, or to refusal, whichever is shallower.

Boring, sampling and testing requirements are a function of the subsurface conditions encountered. The proposed fee is based on the existence of adequate bearing materials being encountered within the proposed boring depths. Should conditions be encountered which require a deepening of borings or additional investigation, Rubino will notify you to discuss modifying the outlined scope of services. Additional work beyond the lump-sum fee will not be performed without your prior authorization.

AUTHORIZATION

If this proposal is acceptable to you, Rubino will perform the work in accordance with the attached General Conditions that are incorporated into and made a part of this proposal. Please sign below as notice to proceed and return one copy of this proposal intact to our office. Rubino will proceed with the work upon receipt of authorization.

Rubino appreciates the opportunity to offer our services for this project and we look forward to working with your company. Please contact Rubino with questions pertaining to this proposal or requests for additional services.

Respectfully submitted,

RUBINO ENGINEERING, INC.

Michelle A. Lipinski, PE
President

Anthony T. Tomaras
Project Manager

RUBINO ENGINEERING, INC. IS:
AN AASHTO-ACCREDITED LABORATORY
IDOT PREQUALIFIED
IDOT DBE-CERTIFIED (100% WOMAN-OWNED)

MAL/file

Attachments: Proposal Acceptance and Data Sheet
Schedule of Services and Fees
General Conditions

**This is an electronic copy. Hard Copies of this proposal are available upon request.

PROPOSAL ACCEPTANCE:

AGREED TO, THIS _____ **DAY OF** _____ **, 201__.**

BY *(please print)*: _____

TITLE: _____

COMPANY: _____

SIGNATURE: _____

PROJECT INFORMATION:

1. Project Name: _____
2. Project Location: _____
3. Your Job No: _____ Purchase Order No.: _____
4. Project Manager: _____ Telephone No.:_____
5. Site Contact:_____ Telephone No.:_____
6. Number and Distribution of Reports:

( ) Copies To: _____ ( ) Copies To: _____

_____ _____

_____ _____

Attn: _____ Attn:_____

Email: _____ **Email:** _____

( ) Copies To: _____ ( ) Copies To: _____

_____ _____

_____ _____

Attn: _____ Attn:_____

Email: _____ **Email:** _____

7. Invoicing Address: _____

_____

_____

Attn: _____

Email: _____

8. Other Pertinent Information Or Previous Subsurface Information Available:

_____

_____

Rubino Engineering, Inc.
2019 Schedule of Geotechnical Services & Fees

SUBSURFACE EXPLORATION

Mobilization and moving of truck-mounted drilling equipment and crew (50-mile radius)	Per Trip	$	650.00
Hourly Rate Drilling (difficult or unusual conditions, hard material, boulders, rubble, etc.	Per Hour	$	350.00
Thin Wall Tubes (ASTM D-1587)	Each	$	50.00

LABORATORY TESTING

Moisture Content Test / Visual Classification	Each	$	7.00
Atterberg Limits Determination (LL, PL)	Each	$	70.00
Combined Hydrometer & Sieve Analysis	Each	$	140.00
Sieve Analysis (washed)	Each	$	85.00
Unconfined Compression Test, Tube Sample	Each	$	35.00
Unconfined Compression Test, with Stress-Strain Curve	Each	$	55.00
Density Determination	Each	$	15.00
Specific Gravity Determination	Each	$	65.00
Organic Content Determination Test (wet combustion)	Each	$	23.33
ASTM D698 - AASHTO T99 (Standard Proctor)	Each	$	195.00
ASTM D1557 - AASHTO T180 (Modified Proctor)	Each	$	215.00
One-Dimensional Consolidation Test (ASTM D-2435)	Each	$	750.00
pH Testing	Each	$	15.00
Triaxial Testing (TXC-CIU) 3-Point Envelope	Each	$	1,000.00

FEE REMARKS

1) All fees and services are provided in accordance with the attached Rubino General Conditions.
2) Unit prices/rates are in effect for 12 months from the date of this proposal and are subject to change without notice thereafter.
3) Overtime rates are applicable for services performed in excess of 8 hours per day Monday through Friday, before 8:00 AM or after 5:00 PM, and for all hours worked on Saturdays, Sundays and holidays. The overtime rate is 1.5 times the applicable hourly rate.
4) All rates are billed on a portal-to-portal basis.
5) Standby time due to delays beyond Rubino's control will be charged at the applicable hourly rate.
6) Transportation and per diem are charged at the applicable rates.
7) Rates involving mileage (including transportation, mobilization, vehicle and trip charges) are subject to change based upon increases in the national average gasoline price.
8) A minimum charge of 4 hours applies to field testing and observation services.
9) Scheduling or cancellation of field testing and observation services is required no less than the working day prior to the date the services are to be performed. Services cancelled without advance and/or inadequate notice will be assessed a minimum charge of 4 hours.
10) For all Rubino services, a project management/engineering review charge will be billed for all reports issued for the scheduling/supervision of personnel and the evaluation/review of data and reports.
11) The minimum billing increment for time is a half hour.
12) A project set-up charge of a minimum of two hours applies to all projects.
13) Professional services rates are exclusive of expert deposition or testimony time.
14) Drilling and field service rates are based on OSHA Level D personnel protection.
15) For sites where drilling is to occur that are not readily accessible to a truck mounted drill rig, rates for rig mobility, site clearing, crew stand-by time, etc. will be charged as applicable.
16) If applicable the prevailing wage fees charged under this agreement will be adjusted if there is any change in the applicable prevailing wage rate established by the Illinois Department of Labor.
17) Services and fees not listed on this schedule may be quoted on request.

EXHIBIT F

Client#: 1171577 RUBINENG

ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 9/10/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Laurie Cloninger
USI Ins Srvcs LLC Euclid-Prof 2021 Spring Road, Suite 100 Oak Brook, IL 60523 312 442-7200	PHONE (A/C, No, Ext): 630 625-5219 FAX (A/C, No): 610 537-4939 E-MAIL ADDRESS: laurie.cloninger@usi.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : RLI Insurance Company	13056
INSURER B : Berkley Insurance Company	32603
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED: Rubino Engineering, Inc.
425-435 Shepard Dr Ste H
Elgin, IL 60123

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			PSB0003777	09/01/2019	09/01/2020	EACH OCCURRENCE	$1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$1,000,000
							MED EXP (Any one person)	$10,000
							PERSONAL & ADV INJURY	$1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$2,000,000
	POLICY X PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$2,000,000
	OTHER:							$
A	AUTOMOBILE LIABILITY			PSA0001881	09/01/2019	09/01/2020	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
A	UMBRELLA LIAB X OCCUR			PSE0002142	09/01/2019	09/01/2020	EACH OCCURRENCE	$5,000,000
	X EXCESS LIAB / CLAIMS-MADE						AGGREGATE	$5,000,000
	DED / RETENTION $							$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: Y	N / A		PSW0002789	09/01/2019	09/01/2020	X PER STATUTE / OTH-ER	
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. EACH ACCIDENT	$1,000,000
							E.L. DISEASE - EA EMPLOYEE	$1,000,000
							E.L. DISEASE - POLICY LIMIT	$1,000,000
A	Professional Liability			AEC903377800	09/01/2019	09/01/2020	$2,000,000 each claim / $4,000,000 annual aggr.	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Professional Liability is written on a 'claims made' policy form.
Some or all officers are excluded from Workers Compensation coverage.

THIS CERTIFICATE OF INSURANCE IS INTENDED AS A SPECIMEN COPY ONLY.

CERTIFICATE HOLDER
Rubino Engineering, Inc.

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2016/03) 1 of 1 The ACORD name and logo are registered marks of ACORD
#S26541701/M26539043 LXCAA

EXHIBIT F

GENERAL CONDITIONS

1. PARTIES AND SCOPE OF SERVICES: Rubino Engineering, Inc. shall include said company or its particular division, subsidiary or affiliate performing the services. "Services" means the specific geotechnical, analytical, testing or other service to be performed by Rubino Engineering, Inc. as set forth in Rubino Engineering, Inc.'s proposal, Client's acceptance thereof and these General Conditions. Additional services ordered by Client shall also be subject to these General Conditions. "Client" refers to the person or business entity ordering the services to be done by Rubino Engineering, Inc. If Client is ordering the services on behalf of another, Client represents and warrants that it is the duly authorized agent of said party for the purpose of ordering and directing said services. Unless otherwise stated in writing, Client assumes sole responsibility for determining whether the quantity and the nature of the services ordered by the client is adequate and sufficient for Client's intended purpose. Client shall communicate these General Conditions to each and every third party to whom Client transmits any part of Rubino Engineering, Inc.'s services. Rubino Engineering, Inc. shall have no duty or obligation to any third party greater than that set forth in Rubino Engineering, Inc.'s proposal, Client's acceptance thereof and these General Conditions. The ordering of services from Rubino Engineering, Inc., or the reliance on any of Rubino Engineering, Inc.'s work, shall constitute acceptance of the terms of Rubino Engineering, Inc.'s proposal and these General Conditions, regardless of the terms of any subsequently issued document.

2. TESTS AND INSPECTIONS: Client shall cause all tests and inspection of the site, materials and work performed by Rubino Engineering, Inc. or others to be timely and properly performed in accordance with the plans, specifications and contract documents and Rubino Engineering, Inc.'s recommendations. No claims for loss, damage or injury shall by brought against Rubino Engineering, Inc. by Client or any third party unless all tests and inspections have been so performed and unless Rubino Engineering, Inc.'s recommendations have been followed. Client agrees to indemnify, defend and hold Rubino Engineering, Inc., its officers, employees and agents harmless from any and all claims, suits, losses, costs and expenses, including, but not limited to, court costs and reasonable attorney's fees in the event that all such tests and inspections are not so performed or Rubino Engineering, Inc.'s recommendations are not so followed except to the extent that such failure is the result of the negligence, willful or wanton act of omission of Rubino Engineering, Inc., its officers, agents or employees, subject to the limitation contained in paragraph 9.

3. SCHEDULING OF SERVICES: The services set forth in Rubino Engineering, Inc.'s proposal and Client's acceptance will be accomplished in a timely, workmanlike and professional manner by RUBINO ENGINEERING, INC. personnel at the prices quoted. If Rubino Engineering, Inc. is required to delay commencement of the services or if, upon embarking upon its services, Rubino Engineering, Inc. is required to stop or interrupt the progress of its services as a result of changes in the scope of the services requested by Client, to fulfill the requirements of third parties, interruptions in the progress of construction, or other causes beyond the direct reasonable control of Rubino Engineering, Inc., additional charges will be applicable and payable by Client.

4. ACCESS TO SITE: Client will arrange and provide such access to the site as is necessary for Rubino Engineering, Inc. to perform the services. Rubino Engineering, Inc. shall take reasonable measures and precautions to minimize damage to the site and any improvements located thereon as the result of its services or the use of its equipment; however, Rubino Engineering, Inc. has not included in its fee the cost of restoration of damage which may occur. If Client desires or requires Rubino Engineering, Inc. to restore the site to its former condition, upon written request Rubino Engineering, Inc. will perform such additional services as is necessary to do so and Client agrees to pay Rubino Engineering, Inc. for the cost.

5. CLIENT'S DUTY TO NOTIFY ENGINEER: Client represents and warrants that it has advised Rubino Engineering, Inc. of any known or suspected hazardous materials, utility lines and pollutants at any site at which Rubino Engineering, Inc. is to perform services hereunder, and unless Rubino Engineering, Inc. has assumed in writing the responsibility of locating subsurface objects, structures, lines or conduits. Rubino Engineering, Inc. may use such information in performing its services and is entitled to rely upon the accuracy and completeness thereof. Client agrees to defend, indemnify and save Rubino Engineering, Inc. harmless from all claims, suits, loses costs and expenses, including reasonable attorney's fees as a result of personal injury, death or property damage occurring with respect to Rubino Engineering, Inc.'s performance of its work and resulting to or caused by contact with subsurface of latent objects, structures, lines or conduits where the actual or potential presence and location thereof were not revealed to Rubino Engineering, Inc. by Client and/or by any of Client's subcontractors or sub consultants

6. RESPONSIBILITY: Rubino Engineering, Inc.'s services shall not include determining, supervising or implementing the means, methods, techniques, sequences or procedures of construction. Rubino Engineering, Inc. shall not be responsible for evaluating, reporting or affecting job conditions concerning health, safety or welfare. Rubino Engineering, Inc.'s services or failure to perform same shall not in any way excuse any contractor, subcontractor or supplier from performance of its work in accordance with the contract documents. Rubino Engineering, Inc. has no right or duty to stop the contractor's work.

7. SAMPLE DISPOSAL: Unless otherwise agreed in writing, test specimens or samples will be disposed immediately upon completion of the test. All drilling samples or specimens will be disposed sixty (60) days after submission of Rubino Engineering, Inc.'s report.

8. PAYMENT: Client shall be invoiced once each month for services performed during the preceding period. Client agrees to pay each invoice within thirty (30) days of its receipt. Client further agrees to pay interest on all amounts invoiced and not paid or objected to for valid cause in writing with said thirty (30) day period at the rate of eighteen (18) percent per annum (or the maximum interest rate permitted under applicable law), until paid. Client agrees to pay Rubino Engineering, Inc.'s cost of collection of all amounts due and unpaid after sixty (60) days, including court costs and reasonable attorney's fees. Rubino Engineering, Inc. shall not be bound by any provision or agreement requiring or providing for arbitration or disputes or controversies arising out of this agreement, any provision wherein Rubino Engineering, Inc. waives any rights to a mechanics' lien, or any provision conditioning Rubino Engineering, Inc.'s right to receive payment for its services upon payment to Client by any third party. These General Conditions are notice, where required, that Rubino Engineering, Inc. shall file a lien whenever necessary to collect past due amounts. Release of such lien shall be given only when payment in full has been received for services duly rendered. Failure to make payment within thirty (30) days of invoice shall constitute a release of Rubino Engineering, Inc. from any and all claims which Client may have, whether in tort, contract or otherwise and whether known or unknown at the time.

9. STANDARD OF CARE: RUBINO ENGINEERING, INC.'S SERVICES WILL BE PERFORMED, ITS FINDINGS OBTAINED AND ITS REPORTS PREPARED IN ACCORDANCE WITH ITS PROPOSAL, CLIENT'S ACCEPTANCE THEREOF, THESE GENERAL CONDITIONS AND WITH GENERALLY ACCEPTED PRINCIPLES AND PRACTICES. IN PERFORMING ITS PROFESSIONAL SERVICES, RUBINO ENGINEERING, INC. WILL USE THAT DEGREE OF CARE AND SKILL ORDINARILY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY MEMBERS OF ITS PROFESSION. RUBINO ENGINEERING, INC. MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, IN CONNECTION WITH ITS SERVICES PROVIDED AS SET FORTH IN ITS PROPOSAL, CLIENT'S ACCEPTANCE THEREOF, AND THESE GENERAL CONDITIONS. STATEMENTS MADE IN RUBINO ENGINEERING, INC. REPORTS ARE OPINIONS BASED UPON ENGINEERING JUDGMENT AND ARE NOT TO BE CONSTRUED AS REPRESENTATIONS OF FACT.

SHOULD RUBINO ENGINEERING, INC. OR ANY OF ITS PROFESSIONAL EMPLOYEES BE FOUND TO HAVE BEEN NEGLIGENT IN THE PERFORMANCE OF ITS WORK, OR TO HAVE MADE AND BREACHED ANY EXPRESSED OR IMPLIED WARRANTY, REPRESENTATION OR CONTRACT, CLIENT, ALL PARTIES CLAIMING THROUGH CLIENT AND ALL PARTIES CLAIMING TO HAVE IN ANY WAY RELIED UPON RUBINO ENGINEERING, INC.'S WORK, AGREE THAT THE MAXIMUM AGGREGATE AMOUNT OF THE LIABILITY OF RUBINO ENGINEERING, INC., ITS OFFICERS, EMPLOYEES AND AGENTS SHALL BE LIMITED TO $10,000.00 OR THE TOTAL AMOUNT OF THE FEE PAID TO RUBINO ENGINEERING, INC. FOR ITS WORK PERFORMED WITH RESPECT TO THE PROJECT, WHICHEVER AMOUNT IS GREATER.

NO ACTION OR CLAIM, WHETHER IN TORT, CONTRACT OR OTHERWISE, MAY BE BROUGHT AGAINST RUBINO ENGINEERING, INC., ARISING FROM OR RELATED TO RUBINO ENGINEERING, INC.'S WORK, MORE THAN TWO (2) YEARS AFTER THE CESSATION OF RUBINO ENGINEERING, INC.'S WORK HEREUNDER.

10. INDEMNITY: To the fullest extent permitted by law, Client and Rubino Engineering, Inc. each agree to indemnify the other party and the other party's officers, directors, partners, employees, and representatives, from and against losses, damages, and judgments arising from claims by third parties, including reasonable attorneys' fees and expenses recoverable under applicable law, but only to the extent they are found to be caused by a negligent act, error, or omission of the indemnifying party or any of the indemnifying party's officers, directors, members, partners, agents, employees, subcontractors, or subconsultants in the performance of services under this Agreement. If claims, losses, damages, and judgments are found to be caused by the joint or concurrent negligence of Client and Rubino Engineering, Inc., they shall be borne by each party in proportion to its negligence.

11. TERMINATION: This Agreement may be terminated by either party upon seven (7) days' prior written notice. In the event of termination, Rubino Engineering, Inc. shall be compensated by Client for all services performed up to and including the termination date, including reimbursable expenses and for the completion of such services and records as are necessary to place Rubino Engineering, Inc.'s files in order and/or protect its professional reputation. Failure of Client to make payments when due shall be cause for suspension of services or, ultimately, termination, unless and until Rubino Engineering Inc. has been paid in full all amounts due for services, expenses and other related changes.

12. DISPUTE RESOLUTION: In the event of a dispute arising out of or relating to this Agreement or the services to be rendered hereunder, the Client and Rubino Engineering, Inc. agree to attempt to resolve such disputes in the following manner: 1) The parties agree to attempt to resolve any and all unsettled claims, counterclaims, disputes and other matters in question through direct negotiations between the appropriate representatives of each party; 2) If such negotiations are not fully successful, the parties agree to submit any and all remaining unsettled claims, counterclaims, disputes and other matters in question to mediation in accordance with the Construction Industry Mediation Rules of the American Arbitration Association, effective as of the date of this Agreement.

13. WITNESS FEES: Rubino Engineering, Inc.'s employees shall not be retained as expert witnesses except by separate written agreement. Client agrees to pay Rubino Engineering, Inc.'s legal expenses, administrative costs and fees pursuant to Rubino Engineering, Inc.'s then current fee schedule for Rubino Engineering, Inc. to respond to any subpoena.

14. NO HIRE: Client agrees not to hire Rubino Engineering, Inc.'s employees except through Rubino Engineering, Inc. In the event Client hires a Rubino Engineering, Inc. employee, Client shall pay Rubino Engineering, Inc. an amount equal to one-half of the employee's annualized salary, with Rubino Engineering, Inc. waiving other remedies it may have.

15. HAZARDOUS MATERIALS: Nothing contained within this agreement shall be construed or interpreted as requiring Rubino Engineering, Inc. to assume the status of an owner, operator, generator, storer, transporter, treater or disposal facility as those terms appear within RCRA, CERCLA, or within any Federal or State statute or regulation governing the generation, transportation, treatment, storage and disposal of pollutants. Client assumes full responsibility for compliance with the provisions of RCRA, CERCLA, and any other Federal or State statute or regulation governing the handling, treatment, storage and disposal of pollutants.

16. PROVISIONS SEVERABLE: The parties have entered into this agreement in good faith and it is the specific intent of the parties that the terms of the General Conditions be enforced as written. In the event any of the provisions of these General Conditions should be found to be unenforceable, it shall be stricken and the remaining provisions shall be enforceable.

17. ENTIRE AGREEMENT: This agreement constitutes the entire understanding of the parties, and there are no representations, warranties or undertakings made other than as set forth herein. This agreement may be amended, modified or terminated only in writing, signed by each of the parties hereto.

Rubino Engineering, Inc.

Illinois Department of Transportation

Payroll Escalation Table
Fixed Raises
DLM 2.80

FIRM NAME	Rubino Engineering, Inc.	**DATE**	01/30/20
PRIME/SUPPLEMENT	Prime	**PTB NO.**	1

CONTRACT TERM	12	**MONTHS**	**OVERHEAD RATE**		140.00%
START DATE	4/1/2020		**COMPLEXITY FACTOR**		0
RAISE DATE	3/1/2021		**% OF RAISE**		3.00%

ESCALATION PER YEAR

4/1/2020 - 3/31/2021				
12				
12				

= 100.00%
= 1.0000

The total escalation for this project would be: **0.00%**

Illinois Department of Transportation

Payroll Rates

FIRM NAME Rubino Engineering, Inc. **DATE** 01/30/20
PRIME/SUPPLEMENT Prime
PTB NO. 1

ESCALATION FACTOR 0.00%

CLASSIFICATION	CURRENT RATE	ESCALATED RATE
Material Tester 1 & 2	$38.90	$38.90
Project Manager/Enginee	$37.50	$37.50
Staff Geologist	$23.00	$23.00
Staff Engineer	$31.73	$31.73
Administrative	$20.01	$20.01
Driller	$56.00	$56.00
Laboratory Supervisor	$27.61	$27.61
Laboratory Tech	$17.00	$17.00
Principal	$65.00	$65.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
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		$0.00

Illinois Department of Transportation

Cost Estimate of Consultant Services
(Direct Labor Multiple)

Firm	Rubino Engineering, Inc.	Date	01/30/20
Route	Deep Lake Road Widening		
Section	Lake County	Overhead Rate	**140.00%**
County	Lake County		
Job No.	Rubino Proposal #Q19.507g_REV1	Complexity Factor	**0**
PTB & Item	1		

ITEM	MANHOURS (A)	PAYROLL (B)	(2.80+R) TIMES PAYROLL (C)	DIRECT COSTS (D)	SERVICES BY OTHERS (E)	DBE TOTAL (C+D+E)	TOTAL (C+D+E)	% OF GRAND TOTAL
Report Prep	68	2,304.94	6,453.83	0		6,453.83	6,453.83	17.90%
PM / Layout / Coord.	21	694.52	1,944.66	130		2,074.66	2,074.66	5.75%
Drilling and Traffic Control	131	5,702.03	15,965.68	9,652		25,617.28	25,617.28	71.05%
Geo Laboratory Testing	3	71.50	200.20	1,708		1,908.15	1,908.15	5.29%
TOTALS	223	8,772.99	24,564.37	11,489.55	0.00	36,053.92	36,053.92	100.00%

BDE 3606 Template (Rev. 10/31/16)

Illinois Department of Transportation

EXHIBIT F

Average Hourly Project Rates

Route	Deep Lake Road Widening
Section	Lake County
County	Lake County
Job No.	Rubino Proposal #Q19.507g_REV1
PTB/Item	1

Consultant Rubino Engineering, Inc.

Date 01/30/20

Sheet 1 **OF** 1

Payroll Classification	Avg Hourly Rates	Total Project Rates			Report Prep			PM / Layout / Coord.			Drilling and Traffic Control			Geo Laboratory Testing					
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Material Tester 1 & 2	$38.90	0																	
Project Manager/Engineer	$37.50	29	13.00%	4.88	9	13.24%	4.96	15	71.43%	26.79	4	3.05%	1.15	1	33.33%	12.50			
Staff Geologist	$23.00	68	30.49%	7.01	20	29.41%	6.76	4	19.05%	4.38	44	33.59%	7.73						
Staff Engineer	$31.73	28	12.56%	3.98	28	41.18%	13.07												
Administrative	$20.01	5	2.24%	0.45				2	9.52%	1.91	3	2.29%	0.46						
Driller	$56.00	80	35.87%	20.09							80	61.07%	34.20						
Laboratory Supervisor	$27.61	0																	
Laboratory Tech	$17.00	4	1.79%	0.30	2	2.94%	0.50							2	66.67%	11.33			
Principal	$65.00	9	4.04%	2.62	9	13.24%	8.60												
		0																	
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TOTALS		223	100%	$39.34	68	100%	$33.90	21	100%	$33.07	131	100%	$43.53	3	100%	$23.83	0	0%	$0.00

Illinois Department of Transportation

EXHIBIT F

Direct Costs Check Sheet

COMPANY NAME: Q19.507g_REV1

PTB NUMBER: **Rubino proposal # Q19.507g Deep Lake Rd**

TODAY'S DATE: **1/30/2020**

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
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			$0.00	$0.00
Vehicle Owned or Leased	$32.50/half day (4 hours or less) or $65/full day		9	$65.00	$585.00
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)			$0.00	$0.00
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)		2	$ 2,500.00	$5,000.00
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
Atterberg Limits	In house direct cost		5	$ 70.00	$350.00
Hydrometer	In house direct cost		1	$ 140.00	$140.00
Natural Moisture Content	In house direct cost		124	$ 7.00	$868.00
Organic Content	In house direct cost		15	$ 23.33	$349.95
Drill Rig Mobilization	In house direct cost		4	$ 549.15	$2,196.60
Traffic Control and Protection - Shoulder Closure	In house direct cost		2	$1,000.00	$2,000.00
					$0.00
					$0.00
				$0.00	$0.00
				$0.00	$0.00
TOTAL DIRECT COST					**$11,489.55**

**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

Rubino Engineering Inc. **BDE3608 & 436 Direct Cost Breakdown**
Date: 1/30/2020
Proposal #)19.507g_REV1
Project: Deep Lake Rd Widening

BDE 3608 ITEM: PM, Boring Layout / Coord.

Direct Cost Item	Estimated Quantity	Direct Cost	Total	Grand Total
Vehicle - Owned or Leased	2	$ 65.00	$ 130.00	
				$ 130.00

BDE 3608 ITEM: Drilling and Traffic Control

Direct Cost Item	Estimated Quantity	Direct Cost	Subtotal	Grand Total
Drill Rig Mobilization	4	$ 549.15	$ 2,196.60	
Vehicle - Traffic Control	4	$ 65.00	$ 260.00	
Vehicle - Owned or Leased	3	$ 65.00	$ 195.00	
Traffic Control per Day - Shoulder Closure	2	$1,000.00	$ 2,000.00	
Traffic Control per Day - Flaggers	2	$ 2,500.00	$ 5,000.00	
			Total	**$ 9,651.60**

BDE 3608 ITEM: Geo Laboratory Testing

Direct Cost Item	Estimated Quantity	Direct Cost	Subtotal	Grand Total
Atterberg Limits	5	$ 70.00	$ 350.00	
Hydrometer	1	$ 140.00	$ 140.00	
Natural Moisture Content	124	$ 7.00	$ 868.00	
Organic Content	15	$ 23.33	$ 349.95	
			Total	**$ 1,707.95**

# of Vehicle Days		9
Grand Total this page	$	11,490
Grand Total BDE 436 Page	$	11,490
Grand Total CECS	$	11,490

EXHIBIT G

WINSTON ENGINEERING

ESTIMATE DATE
2/14/2020

TO : HR Green
Attn: Jeff Strzalka
420 Front St #100
McHenry, IL 60050
p. (815) 759-8359
Via Email: jstrzalka@hrgreen.com

*** QUOTE NO.: ***0214CF1090Revised

DESCRIPTION: Site research and preparation of IEPA Form 663 for the disposal of dirt from the project located on Deep Lake Road in Antioch

Description	Amount	Unit	Rate	Total
CCDD Evaluation				
Sampling Labor (est.)	12	HR	$ 100.00	$ 1,200.00
Soil Characterization Analytical*				
Discrete Soil RCRA Metals and Iron	15	EA	$ 80.00	$ 1,200.00
Discrete Soil pH	15	EA	$ 10.00	$ 150.00
Discrete Soil VOCs	15	EA	$ 105.00	$ 1,575.00
Discrete Soil SVOCs	15	EA	$ 200.00	$ 3,000.00
Discrete Soil PCBs	15	EA	$ 75.00	$ 1,125.00
TCLP RCRA Metals/Iron (if necessary)	15	EA	$ 100.00	$ 1,500.00
SPLP RCRA Metals/Iron (if necessary)	15	EA	$ 100.00	$ 1,500.00
Waste Characterization Sampling (if necessary)	1	EA	$ 3,400.00	$ 3,400.00
LPC 663 Certification/Consulting	1	LS	$ 1,000.00	$ 1,000.00
SUB TOTAL ESTIMATE :				$ 15,650.00

Remit Payment to: Winston Engineering
2256 Southwind Blvd.
Bartlett, IL 60103

If you have any questions, please contact Andy Paxson at 630-768-7191

Ames Engineering, Inc.
Consulting Engineers

Project: Deep Lake Road
Lake County Division of Transportation
AEI Ref. # 2019-12

December 17, 2019
Revised January 16, 2020

Ames Engineering, Inc. (AEI) will be the sub-consultant to HR Green to provide lighting PS&E and to provide CADD services for the above project.

Scope of Work – Lighting

Ames Engineering, Inc. (AEI) scope of services consists of providing intersection lighting plans for the proposed construction of a roundabout at Deep Lake Road and North Avenue. Also included will be intersection lighting plans at Deep Lake Road and Depot Street. The work will consist of the following items:

1. Providing General Notes, Legend and Schedule of Quantities
2. Provide proposed lighting plans at the roundabout Deep Lake Rd at North Ave. and along each approach
3. Provide proposed lighting plans at Deep Lake Road and Depot Street
4. Wiring Diagram/Load table
5. Electrical Detail sheets
6. Photometric Calculations
7. Special Provisions
8. Voltage Drop Calculations
9. Field visit
10. RFI's
11. Engineers Cost Estimate
12. Coordination with ComEd
13. Meetings with Prime/Client
14. QA/QC
15. Project management and administration

Items not included in scope:

1. Any items outside the scope of work and project limits as shown above.
2. Additional hours will be required if changes to geometry are made after the final plan submittal.

Items to be furnished to AEI:

1. Base sheets in dgn format.
2. All underground utilities (dgn format).
3. Lake County Details/Standards in electronic format
4. Electronic files (dgn format) of proposed roadway geometry, alignment shall be provided by the Prime.

Ames Engineering, Inc.
Consulting Engineers

Project: Deep Lake Road
Lake County Division of Transportation
AEI Ref. # 2019-12

Manhour Estimate - Lighting

Item	Task	Hours
1.	General Notes, Legend and Schedule of Quantities (1sheet)	8
2.	Proposed Lighting Plans (3 sheets at North Ave @ 36 hrs/sheet) (1 sheet at Depot Street @ 36 hrs/sheet)	144
3.	Wiring Diagram/Load Table (2 sheets)	24
4.	Electrical Detail sheets (5 sheets @ 1hr /sheet)	5
5.	Photometric Calculations (roundabout intersection)	12
6.	Special Provisions	6
7.	Voltage Drop Calculations	8
8.	Field Visit (1 field trip 2 persons @ 4 hrs/trip)	8
9.	RFI's	4
10.	Engineer's Cost Estimate	8
11.	Coordination with ComEd	4
12.	Meetings with Prime/Client (1 meeting @ 4 hrs/meeting)	4
13.	QA/QC	7
14.	Project management and administration	9
	Total	**251**

Ames Engineering, Inc.
Consulting Engineers

Project: Deep Lake Road
Lake County Division of Transportation
AEI Ref. # 2019-12

Direct Cost Estimate – Lighting

Travel:		
Field Check: 1 trip @ $65/day=$65		
Meeting: 1 meeting @ $65/day=$65		$ 130.00
In-House Miscellaneous:		
100 CADD Hrs: x $10/hr= $1000		$ 1000.00
	TOTAL	$ 1130.00

PAYROLL ESCALATION TABLE
FIXED RAISES

FIRM NAME	AMES Engineering, Inc.	**DATE**	01/27/20
PRIME/SUPPLEMENT	Prime	**PTB-ITEM#**	193
Prepared By	Joan Somer		

CONTRACT TERM	12	**MONTHS**	**OVERHEAD RATE**	140.26%
START DATE	9/1/2020		**COMPLEXITY FACTOR**	0
RAISE DATE	1/1/2021		**% OF RAISE**	2%
END DATE	8/31/2021			

ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	9/1/2020	1/1/2021	4	33.33%
1	1/2/2021	9/1/2021	8	68.00%

The total escalation = 1.33%

Bureau of Design and Environment
Prepared By: Consultant

PAYROLL RATES

FIRM NAME AMES Engineering, Inc. **DATE** 01/27/20
PRIME/SUPPLEMENT Prime
PTB-ITEM # 193

ESCALATION FACTOR **1.33%**

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

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Senior Engineer	$57.78	$58.55
Project Engineer	$51.46	$52.15
CADD Technician	$37.30	$37.80

Bureau of Design and Environment
Prepared By: Consultant

Subconsultants

FIRM NAME AMES Engineering, Inc. **DATE** 01/27/20
PRIME/SUPPLEMENT Prime
PTB-ITEM # 193

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

EXHIBIT H

COST PLUS FIXED FEE
COST ESTIMATE OF CONSULTANT SERVICES

Bureau of Design and Environment
Prepared By: Consultant

FIRM AMES Engineering, Inc. **DATE** 01/27/20

PTB-ITEM # 193 **OVERHEAD RATE** 140.26%

PRIME/SUPPLEMENT Prime **COMPLEXITY FACTOR** 0

DBE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENF (C)	DIRECT COSTS (D)	FIXED FEE (E)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
DBE	Lighting	251	12,182	17,086	1,130	4,020		34,418	34,418	100.00%
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			-	-		-		-	-	
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			-	-		-		-	-	
	Subconsultant DL					0			-	
	TOTALS	251	12,182	17,086	1,130	4,020	-	34,418	34,418	100.00%
			29,268							

DBE 100.00%

EXHIBIT H

AVERAGE HOURLY PROJECT RATES

FIRM AMES Engineering, Inc.
PTB-ITEM# 193
PRIME/SUPPLEMENT Prime

DATE 01/27/20

SHEET 1 OF 1

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			Lighting														
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Senior Engineer	58.55	60.0	23.90%	14.00	60	23.90%	14.00												
Project Engineer	52.15	101.0	40.24%	20.98	101	40.24%	20.98												
CADD Technician	37.80	90.0	35.86%	13.55	90	35.86%	13.55												
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TOTALS		251.0	100%	$48.53	251.0	100.00%	$48.53	0.0	0%	$0.00	0.0	0%	$0.00	0.0	0%	$0.00	0.0	0%	$0.00

Deep Lake Road SUE

At the request of HR Green (HRG), HBK Engineering, LLC (HBK) has prepared a scope of services and a manhour and fee estimate for Utility Coordination and Subsurface Utility Engineering (SUE) Services. These services are for the Deep Lake roadway improvement limits from IL RTE 173 to the Wisconsin State Line, along with the intersections of Depot Street and North Avenue.

The following information represents HBK's scope of work for services for this roadway improvement project.

UTILITY COORDINATION PHASE I

Subsurface Utility Engineering (SUE)/utility for this project will be completed by **HBK Engineering, Inc. (HBK)**, as a subconsultant to HR Green.

Initial Coordination/Data Collection:
The proposed improvements will require coordination with public and private utilities that have facilities within the project corridor. HBK will coordinate with any utility companies/agencies found to have facilities located within the vicinity of the project limits through a JULIE Design Stage/Planning Information Request. A request will be made for these utilities to provide any available maps of existing facilities. It has been estimated that there will be up to ten public and private utilities to coordinate with for this project.

Utility Locating
Descriptions of Subsurface Utility Engineering (SUE) quality levels are derived from the FHWA website on subsurface utility engineering. The website describes American Society of Civil Engineers (ASCE) Standard *C-I 38-02, Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data*. There are four recognized quality levels of underground utility information ranging from Quality Level QL-D (the lowest level) to Quality Level QL-A (the highest level).

HBK will perform SUE Level D, and B locating of any utility facilities located within the project limits. Level D information will be obtained from utility atlases, JULIE requests, and other reliable sources. Qualified HBK staff will perform Level B locates of underground utilities within the project limits and mark them with appropriately colored paint and/or flags. HBK staff will coordinate with the designer's survey crew so that utility markings can be incorporated into their work (picked up by their survey crew) in a timely manner.

SUE Level D and B locating shall include underground traffic control facilities at signalized intersections to the extent allowed by MOT limitations, worker safety, and the ability of the facilities to transmit a locating tone.

Level A locating (potholing or otherwise exposing buried utilities) is **not included** in this scope of work. If needed, Level A locating can be added to the scope at a later date.

Utility Data Base Mapping

HBK will coordinate with HR Green so that utilities can be depicted accurately in the survey data and utility base maps. This shall include time allotted for utility base map QA/QC.

Preliminary Design Coordination Meetings

HBK will work with HR Green to coordinate with utility companies during Phase I Engineering. HBK will send preliminary plans to utility companies to verify the locations of their facilities and review preliminary design to determine if there are any significant conflicts that need to be reviewed. HBK will also coordinate with the roadway design team to develop understanding the presence of utilities, their type, and possible issues with protecting and/or relocating those utilities.

UTILITY COORDINATION PHASE II

HBK Engineering, Inc. (HBK), will provide *supplemental support* on utility coordination as a subconsultant to HR Green.

Coordination

HBK will continue to work with HR Green to coordinate with utility companies during the Phase II Engineering phase. Prefinal plans and electronic files will be sent to utility companies to review the proposed improvements and identify impacts/conflicts to their facilities. At the completion of Phase II Engineering, the final plans will be sent to utility companies for their use in preparing any relocation plans.

Final Design Coordination Meetings

HBK will work with HR Green to coordinate utility companies and with the design team during Phase II Engineering. HBK will support HR Green in drafting and sending Notices of Interference and/or other required correspondence to notify utilities of the project and to begin their protection and relocation processes. HBK will also work with HR Green to coordinate with the roadway design team to integrate utility protection and relocation plans and timelines into the contract documents.

Utility Coordination Meetings

HBK will prepare and attend up to two (2) utility coordination meetings.

End of Document

EXHIBIT I

HBK ENGINEERING, LLC - LCDOT SECTION 19-00095-17-CH UTILITY COORDINATION SUE - HOURS/FEES SCHEDULE

Route: DEEP LAKE RD
Local: LAKE COUNTY DOT
(Municipality/Township/County)
Section: 19-00132-05-CH
Project: **SUE and Utility Coordination - Deep Lake Rd**
Job No: (HBK 20-5068)

*Firm's a**ppoved rates** on file with Bureau of Accounting and Auditing:

Overhead Rate (OH)	126.79%
Complexity Factor (R)	0.00
Calendar Days	

Cost Plus Fixed Fee Methods of Compensation:

- **Fixed Fee 1** [X] **14.5%[DL + R(DL) + OH(DL) + IHDC]**
- **Fixed Fee 2** [ ] **14.5%[DL + R(DL) + 1.4(DL) + IHDC]**
- **Fixed Fee 3** [ ] **14.5%[(2.3 + R)DL + IHDC]**
- **Specific Rate** [ ] **10%(DL + (OH*DL))**
- **Lump Sum** [ ]

Cost Estimate of Consultant's Services in Dollars

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead (OH*DL)	Services by Others (SBO)	Outside Direct Cost	In-House Direct Costs (IHDC)	Fixed Fee (FF)	Total
UTILITY COORDINATION - PHASE I	PRINCIPAL	8	$ 70.00	$ 560.00	$ 710.02		$ 498.20		$ 184.15	$ 1,952.38
	SENIOR PROJECT MANAGER	10	$ 63.30	$ 633.00	$ 802.58				$ 208.16	$ 1,643.74
	PROJECT MANAGER	20	$ 58.00	$ 1,160.00	$ 1,470.76				$ 381.46	$ 3,012.22
	PROJECT ENGINEER	24	$ 45.00	$ 1,080.00	$ 1,369.33				$ 355.15	$ 2,804.49
	LOCATOR 3	24	$ 37.00	$ 888.00	$ 1,125.90		$ 498.20		$ 292.01	$ 2,804.11
	ANALYST	8	$ 29.00	$ 232.00	$ 294.15				$ 76.29	$ 602.44
UTILITY COORDINATION - PHASE II	PRINCIPAL	6	$ 70.00	$ 420.00	$ 532.52				$ 138.12	$ 1,090.63
	SENIOR PROJECT MANAGER	12	$ 63.30	$ 759.60	$ 963.10				$ 249.79	$ 1,972.49
	PROJECT MANAGER	8	$ 58.00	$ 464.00	$ 588.31				$ 152.58	$ 1,204.89
	PROJECT ENGINEER	4	$ 45.00	$ 180.00	$ 228.22				$ 59.19	$ 467.41
	ANALYST	3	$ 29.00	$ 87.00	$ 110.31				$ 28.61	$ 225.92
Totals		127.00		$ 6,463.60	$ 8,195.20	$ -	$ 996.40	$ -	$ 2,125.53	$ 17,780.72

HBK ENGINEERING, LLC - LCDOT SECTION 19-00095-17-CH UTILITY COORDINATION SUE - HOURS/FEES SCHEDULE

NOTES:

1. 'Outside Direct Cost' is per the IDOT BDE spreadsheet, including Mileage, Tolls and Locating Equipment (Marking Paint/Flags)

BLR 05611 (Rev. 11/09/17)
Printed on 02/14/20

EXHIBIT I

Illinois Department of Transportation

Direct Costs Check Sheet

COMPANY NAME: **HBK Engineering, LLC**

PTB NUMBER: **Deep Lake Rd - Lake County DOT Jursidiction**

TODAY'S DATE: **2/14/2020**

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		330	$0.580	$191.40
Vehicle Owned or Leased	$32.50/half day (4 hours or less) or $65/full day		4	$65.00	$260.00
Vehicle Rental	Actual cost (Up to $55/day)			$55.00	$0.00
Tolls	Actual cost		30	$1.50	$45.00
Parking	Actual cost		0	$25.00	$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)		0	$150.00	$0.00
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	$100.00	$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
Locating Equipment (Marking Paint/Flags)	Actual cost	X	1	$500.00	$500.00
				$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
TOTAL DIRECT COST					**$996.40**

**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

VENDOR DISCLOSURE STATEMENT

Vendor Name:	HR Green, Inc.		
Address:	420 N. Front Street, McHenry, Illinois 60050		
Contact Person:	Jeffrey J. Strzalka, P.E.	Contact Phone #:	815-759-8359
Bid/RFP/SOI/Contract/Renewal:	Deep Lake Road – Section No. 19-00132-05-CH		

Vendors wishing to contract with Lake County for goods and services in an amount greater than $30,000 shall submit this form in advance of award. Vendors shall disclose:

- A familial relationship between a Lake County elected official, department director, deputy director and manager and owners, principals, or officers of the vendor's company. Familial relationship is defined as a spouse (including civil partner), child, stepchild, parent, stepparent, grandparent, in-laws (including parent, grandparent, sibling, or child), relatives and non-relatives living in the same residence, and offspring born to any aforementioned person.
- All political campaign contributions made by the vendor or an owner, principal, officer, manager, lobbyist, agent, consultant, counsel, subcontractor or corporate entity under the control of the vendor to any county board member, county board chair, or countywide elected official as well as contributions to any political action committees within the last five years.

FAMILIAL RELATIONSHIPS

List below the names and departments/agencies of Lake County employees or public officials with whom owners, principals, or officers of the vendor's company have a familial relationship and the nature of the relationship. Please attach additional pages as necessary.

Name and Department/Agency of Lake County Employee/Public Official	Familial Relationship
None	

CAMPAIGN CONTRIBUTIONS

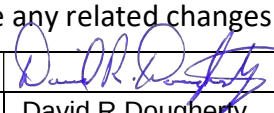
List below the campaign contributions that have been made within the last five years. Please attach additional pages as necessary.

Recipient	Donor	Description (e.g., cash, type of item, in-kind service, etc.)	Amount/Value	Date Made
None				

Continuing disclosure is required if information changes. This Vendor Disclosure Statement form is available at www.lakecountyil.gov.

The full text of the County's Ethics and Procurement policies and ordinances are available at www.lakecountyil.gov.

I hereby acknowledge that the information above is accurate and complete, that I am an authorized signer on behalf of the vendor, that I have read and understand these disclosure requirements, and that I agree to update this information if there are any related changes by submitting a new Vendor Disclosure Statement.

Authorized Signature:		Title:	President - Transportation
Printed Name:	David R Dougherty	Date:	February 17, 2020

Failure to complete and return this Disclosure may result in delay or cancellation of the County's Contractual Obligation.