170184

LOCAL AGENCY		CONSULTANT	
Municipality: Village of Homer Glen	Illinois Department of Transportation	Name: HR Green, Inc.	
Township: Homer	Preliminary Engineering Services Agreement For Motor Fuel Tax Funds	Address: 420 N Front Street	
County: Will		City: McHenry	
Section: 17-00018-00-PV		State: IL	

THIS AGREEMENT is made and entered into this 2ND day of MARCH 2017 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 Heritage Park

Route _____ Length _____ Mi. _____ FT (Structure No. N/A)

Termini Heritage Park Site

Description:
Perform Phase II Engineering services for roadway, parking lot, drainage, water main, sanitary sewer and lighting improvements in the Heritage Park site. Includes survey, design and IDOT coordination.

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, 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 five (5) copies of the plans, special provisions, proposals and estimates. Additional copies of any or all documents, if required, shall be furnished to the LA by the ENGINEER at his actual cost for reproduction.
   - h. ☒ Furnish the LA with survey and drafts in quadruplicate 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.

Note: Four copies to be submitted to the Regional Engineer

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.

(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 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 he will perform such work without expense to the LA, even though final payment has been received by him. He 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 him and will show his professional seal where such is required by law.

The LA Agrees,

1. To pay the ENGINEER as compensation for all services performed as stipulated in paragraphs 1a, 1g, 1i, 2, 3, 5 and 6 in accordance with Exhibit A at a Cost Plus Fixed Amount not to Exceed $170,950.03.

   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 services stipulated in paragraphs 1b, 1c, 1d, 1e, 1f, 1h, 1j & 1k of the ENGINEER AGREES at actual cost of performing such work plus 160 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 his actual cost. Subject to the approval of the LA, the ENGINEER may sublet all or part of the services provided under the paragraph 1b, 1c, 1d, 1e, 1f, 1h, 1j & 1k. If the ENGINEER sublets all or part of this work, the LA will pay the cost to the ENGINEER plus a five (5) percent service charge.

   "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.

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 paragraphs 1a through 1g under 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 paragraphs 1a, through 1h and prior to the completion of such services, the LA shall reimburse the ENGINEER for his actual costs plus 160 percent incurred up to the time he 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 160 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 his responsibility to prepare a complete and adequate set of plans and specifications.

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 his 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 he/she 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 he/she 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 quadruplicate counterparts, each of which shall be considered as an original by their duly authorized officers.

Executed by the LA:

Village of Homer Glen of the
(Municipality/Township/County)

ATTEST:

By _____ Clerk
(Seal)

State of Illinois, acting by and through its

By _____
Title MAYOR

Executed by the ENGINEER:

HR Green, Inc.
420 N Front St
McHenry, IL 60050

ATTEST:

By _____
Title Senior Project Manager

By _____
Title Vice President

Approved

8/17/17
Date

Department of Transportation

_____ MB
Regional Engineer

SCOPE OF SERVICES
VILLAGE OF HOMER GLEN
HERITAGE PARK IMPROVEMENTS

I. Project Understanding

A. General Understanding/Assumptions

The Village of Homer Glen (CLIENT) is planning on improving site along 151st Street adjacent to Village Hall known as Heritage Park. The park will be developed in phases as funding becomes available. The work will be completed by HR Green and Planning Resources Inc. (PRI) under separate contracts. The design will be based upon a Heritage Park concept plan developed by PRI dated January 27, 2017.

The first phase of construction will generally consist of construction of Heritage Circle, Village Green area and bike path loop around north end of site. The Village has indicated they will utilize MFT funding for the construction which will require that the contract plans must be prepared to IDOT MFT Standards and be approved by IDOT. There will be two separate sets of contract documents prepared by HR Green and PRI, but be bid as one package.

The work to be performed by HR Green will generally include the engineering and design required to construct the proposed roadway (Heritage Circle), parking lot, bike path, storm sewer, water main, sanitary sewer and lighting improvements at Heritage Park.

Based on the concept plan, Heritage Circle will consist of an approximately 3,550' asphalt roadway 44' in width with curb and gutter. The proposed typical section will include two lanes with perpendicular parking along one side of the roadway. The roadway will be drained with curb cuts draining to swales designed by others.

A proposed bike path will be installed around the north side of the site which will be approximately 5,400' in length and follow the alignment and grade as shown in the concept plan. Work will also include construction of two path segments that will provide access to Heritage Park to the west and north from 147th Street/Dixon Lane and also Saddle Brook Lane. The path will consist of a 10' wide asphalt path. HR Green design will include a 24' wide area along the path. It has been assumed that the path will drain overland and no detailed drainage analysis or ditching will be required.

B. Design Criteria

The following design guidelines will apply to this project:
1. IDOT Bureau of Local Roads and Streets Manual; and
2. Village of Homer Glen Specifications

II. Scope of Services

A. Data Collection and Review

1. Review concept plan developed by PRI.
2. Coordinate with utility companies to obtain latest maps of utilities within the project limits and place this information on a CADD base map.
3. Soils Investigations
    i. Obtain soil borings, an analysis of soil conditions, and a detailed soil report for the improvement. This work will be performed by a geotechnical subconsultant,

B. Survey Services

The site has previously been surveyed by HR Green. Limited pick-up survey will be required to complete the project.

1. Topographic Survey- Concept plan includes bike path connections to Saddle Brook Lane and Dixon Lane/147th Street. Locate visible site improvements and topography adjacent to the subject property. The topo limits will cover three separate areas. Area #1 will include the unimproved right of way for 147th Street lying east of Dixon Lane for approximately 380 feet. Area #2 will include the unimproved right of way for Coachmans Road lying south of Saddle Brook Lane for approximately 200 feet. Area #3 will include the easterly approximately 100 feet of the Homer Township Public Library property. Existing visible improvements include the buildings, parking lot, ponds, visible utilities and features. Visible existing sanitary sewer and storm sewer pipe inverts will be measured at each manhole and referenced to the existing structure rim elevation. Visible top of pipe for each water main structure will be measured and referenced to the existing structure rim elevation. Trees six (6) inches or larger in diameter lying outside of a tree line will be located but species not identified. The survey will reference local village benchmarks and Illinois State Plane Coordinate System – East Zone NAD83 (2011). The previous Topographic Survey base map in AutoCAD (version 2011) will be updated with the additional topography noted above and provided to the Client.

2. Soil Boring Staking – Stake approximately fifteen (15) soil borings on the subject property referenced above.

3. Plat of Dedication – Prepare one (1) Plat of Dedication for a proposed roadway on the subject property referenced above.

4. Record Drawing – Prepare and submit record drawings of the proposed roadway, utility and grading improvements constructed as part of the project per Village requirements.

C. Geometric Design and Concept Review

1. It has been assumed that the design of Heritage Circle, parking lots and north bike path loop shown in the concept plans will generally be maintained. Heritage Circle will be approximately 3,550 feet in length and the north bike loop will be approximately 5,400 feet in length.
2. Establish the proposed alignments of Heritage Circle and north loop bike path necessary for developing the proposed geometry.

3. Develop proposed vertical profiles of Heritage Circle and north loop bike path. It has been assumed that the preliminary grading plan will be utilized for developing the proposed vertical geometry.
4. Review and verify proposed alignments and profiles meet IDOT MFT requirements.
5. Develop preliminary cross sections for slope and drainage analysis, every 100' and at critical points. Cross sections to include information regarding cross slopes, existing and proposed centerline elevations, and ditch elevation (where appropriate). The limits of the cross sections will be at the back of curb and edge of path. Grading beyond these limits will be included in PRI's grading plan.
6. There will be one parking lot designed along the west side of the site.
7. Prepare the plan and profile sheets (1" = 50') of the roadway and bike path sections.

D. Environmental

No environmental coordination will be required as part of this contract.

E. Maintenance-of-Traffic

It is anticipated that construction will be completed under a single stage of construction and no temporary pavement or parking will be required. Access to the site will be maintained during construction.

F. Drainage Analysis and Design

COMPANY has previously completed a drainage analysis of the project site based on existing conditions. Development of site was not included in the analysis. The analysis will need to be revised and updated to incorporate the proposed site improvements which include: roadway, parking lots, bike paths, revised drainage areas, new detention areas, etc.

1. COMPANY will develop an addendum for the drainage report that was done for the site without improvements. The addendum will include the following:
   i. A calculation of detention volume required for the site improvements. This will be required for the storm water permit to show we are meeting detention requirements. Modeling and exhibits for this task will be included in the addendum.
   ii. A revision of the existing model to reflect the proposed impervious area and changes to time of concentration. Utilize the release rate based on the capacity of the downstream system to determine the volume required for the site. Modify basin volumes and release rates iteratively to get desired release rate.
   iii. There will need to be culverts within the site. Sizing will be completed with the rational method and HY-8 and will be included in the addendum.
   iv. Verify the required permitting detention volume is provided and complete the storm water permit.
2. Inlet Spacing Calculations
   It has been assumed that there will be no inlet spacing required. The roadway and parking lots will be drained through curb cuts into adjacent swales and ditches. The design of swales and ditches will be completed by PRI and incorporated into their

grading plans.

3. Storm Sewer Sizing and Layout
   i. It has been assumed that there will be limited storm sewer proposed within HR Green's portion of the project, less than 200'. Storm sewer will be required to drain the proposed detention area along the western edge of the site. This sewer will be sized to convey proposed flows.
   ii. Storm sewer improvements will be required along the eastern edge of the site, where storm sewer drains into the adjacent residential neighborhoods. These improvements will be within the grading area. These improvements will be completed and included in PRI's project.

G. Permits

The improvements will require various permits to be acquired. The proposed permits to be obtained by HR Green include:

1. Illinois Environmental Protection Agency permits (2) for both the water main and sanitary sewer improvements.
2. A storm water permit will be acquired from Will County for the complete site.
3. A permit from American Water for installation of water main.
4. A permit from Lockport Sanitary District for connection of the sanitary sewer into their system.

The National Pollutant Discharge Elimination System (NPDES) Permit and Stormwater Pollution Prevention Plan (SWPPP) will be completed and obtained by PRI.

H. Lighting

Preliminary discussions have been had with the Village concerning lighting within the site. The Village will utilize LED lighting, however exact details of the extent of lighting has not been determined. HR Green will meet with the Village to review the plan and develop a proposed lightning plan. Hours have been included to develop a basic lighting system for Heritage Circle.

I. Water Main and Sanitary Sewer Design

This project will require the installation of water main and sanitary sewer to service the park improvements. Generally the improvements will include water main to service to future restroom facilities and splash pad area. The assumptions for the water main include that an existing main is located along 151st Street and will tapped into. The main will run north-south through the site to connect the two proposed future restrooms. The main will extend north to Saddle Brook Lane and tie into an existing main at the location. This proposed main will have up to three stubs installed to service future development in the park. It is assumed that no fire hydrants will be required. PRI will provide the water usage required and the main will be sized accordingly.

The sanitary sewer improvements will generally include sanitary service to two future restroom facilities. It has been assumed that the southern restroom will be gravity drained

to the south to a main along 151st Street. The north restroom will be gravity drained to the north to a main along Saddle Brook Lane. No lift station will be required. PRI will provide the usage required and the main will be sized accordingly.

J. Engineer's Opinion of Probable Cost

An Engineer's Opinion of Probable Cost (EOPC) for the project will be prepared and submitted to the CLIENT for review and approval at the 90% and 100% milestones. An EOPC will also be submitted to IDOT District 1 for review and approval at the 90% and 100% milestones.

K. Estimate of Time

COMPANY will prepare and submit an Estimate of Time needed for construction of the proposed improvements to the CLIENT for review and approval at the 90% and 100% milestones.

L. Contract Plans and Specifications

HR Green will develop and assemble the contract plans and special provisions for a local letting. Plans will be developed to predetermined milestones for submittal which will consist of preliminary (60%), pre-final (90%) and final engineering documents. Comments received will be addressed and a disposition of comments provided. CADD drawings of final design will also be submitted to the CLIENT for comment before they are finalized. All construction documents will be reviewed by a QA/QC engineer and a construction engineer prior to their submittals to be certain of their completeness, accuracy, and constructability.

The contract plans will consist of the following sheets:

Item	No. of Sheets
Cover Sheet	1
Index of Sheets / List of Highway Standards	1
General Notes	1
Summary of Quantities	2
Typical Sections	1
Earthwork Schedule	1
Alignment, Ties, and Benchmarks	2
Removal Plans	2
Plan and Profiles - Roadway	5
Plan and Profiles – Bike Path	5
Drainage Plan and Profiles	5
Erosion Control Plans	3
Pavement Elevation Plans	2
Pavement Marking, Signage and Restoration Plans	3
Parking Lot Grading Plans	2
Water Main and Sanitary Sewer Plans	12
Lighting Plans and Details	3
Miscellaneous Details	6
Cross-Sections	15
Total No. of Sheets	**72**

Documents will include the following:

- Bid forms - Notice to Bidders, Schedule of Prices, Bid Bond Requirements per MFT Standards
- Special Provisions
- Plans and Specifications
- Estimate of Time
- Opinion of Probable Cost

M. Utility Coordination

HR Green will solicit information from the Village and all utility companies that have facilities located within the project limits. This gathered information will be added to our CADD plans for use in developing the roadway plans to avoid and/or minimize impacts with existing utilities. Coordination by HR Green will allow the utilities to protect or relocate their facilities in a way that is compatible with the proposed design.

The improvements will also include providing electrical service to the site to accommodate lighting, restrooms, splash park, and other site amenities. Electrical service will also serve Homer Fest. It has been assumed that a new electrical service will be obtained from Com Ed who will provide the electrical lines throughout the site as required.

PRI will provide the electrical power requirements of the site that will be used to coordinate with Com Ed on obtaining a new service to the site.

N. QA/QC

Quality Assurance and Quality Control will be provided in accordance with COMPANY's current QA/QC plan. A constructability review by qualified construction personnel will also be provided as part of the QA/QC process.

O. Meetings, Field Checks, and General Coordination

This project will require coordination and meetings with various agencies and stakeholders. The coordination and meetings are as described below.

1. Two (2) meetings with the CLIENT to review plans
2. One (1) meeting with IDOT to review and obtain approval of contract documents
3. Four (4) meetings/calls with PRI to review and coordinate plan development
4. One (1) field check

Meeting Time and Specifications include:

1. COMPANY will have up to two (2) representatives at all meetings.
2. A maximum of four (4) hours per meeting have been allotted for all meetings, including travel time.
3. Meeting preparation time of two (2) hours per representative for progress and coordination meetings.
4. Preparation and distribution of meeting minutes will be provided for all meetings.

P. Administration

This item includes project management and general administrative tasks associated with oversight and monthly billing.

Q. Deliverables

Deliverables included in this contract are:

Contract Plans and Specifications.

1. The following will be submitted to the CLIENT and IDOT:
    i. 60% Milestone – Two (2) half-size sets of the preliminary plans to client. Electronic copy to the client and PRI.
    ii. 90% Milestone – Two (2) half-size sets of the pre-final plans and two (2) copies of the special provisions, the EOPC and the Estimate of Time to client and IDOT. Electronic copy to the client and PRI.
    iii. 100% Milestone – Two (2) half-size sets of the final plans, a PDF of the final plans, and two (2) copies of the special provisions, the EOPC, and the Estimate of Time to client and IDOT.
    iv. Bid Sets – Eight (8) half-size sets of the final plans and special provisions for bidding purposes will be provided to the Village.
2. The following will be submitted to each of the utilities known to have services within project limits:
    i. 60% Milestone – Four (4) full-size sets of the preliminary plans so that the utility

companies may note locations of their existing facilities.

ii. 100% Milestone – Four (4) full-size sets of the final plans.

R. Bidding Assistance

HR Green will deliver the documents to the Local Roads office and review the submittal in its entirety with the IDOT Field Engineer and obtain approval signatures. Once approved, we will prepare the Computer Data form and schedule advertisement dates though the Local Roads office. HR Green will prepare reproducible plans and bidding documents and respond to questions during the bidding process. HR Green will also attend at the bid opening.

1. Bid Recommendation

At the bid opening, HR Green will open and read aloud the results of each Contractor's bid and announce an apparent low bidder. Following the bid opening, HR Green will examine the bid documents and perform calculation checks of each Contractor to confirm the low bidder and generate bid tabulations. Provided all bid documents are in order, HR Green will prepare a Recommendation to Award for the Village Board Meeting.

S. Services by Others

1. Geotechnical services will be provided by a geotechnical subconsultant.
2. Lighting design will be provided by a lighting subconsultant.

T. Not Included in Contract

1. NPDES Permit
2. Landscaping plans.
3. Permit Fees (to be paid by the CLIENT)

Exhibit A - Phase II Engineering

Route: Heritage Park
Local Agency: Homer Glen

Section: 17-00018-00-PV
Project:
Job No.

*Firm's approved rates on file with IDOT's Bureau of Accounting & Auditing:	
Overhead Rate (OH)	160.00%
Complexity Factor (R)	0.00
Calendar Days	200

Method of Compensation:

Cost Plus Fixed Fee 1	☒	14.5%[DL + R(DL) + OH(DL) + IHDC]
Cost Plus Fixed Fee 2	☐	14.5%[DL + R(DL) + 1.4(DL) + IHDC]
Cost Plus Fixed Fee 3	☐	14.5%[(2.3 + R)DL + IHDC]
Specific Rate	☐	
Lump Sum	☐	

Cost Estimate of Consultant's Services in Dollars

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead*	Services by Others	In-House Direct Costs (IHDC)	Profit	Total
Data Collection and Geotechnical Engineering		10	$35.23	$352.30	$563.68	$7,602.50		$132.82	$8,651.30
Topographic Survey	(See	89	$33.75	$3,003.75	$4,806.00		$66.00	$1,141.98	$9,017.73
Geometric Design and Concept Review	Exhibit C)	24	$39.79	$954.96	$1,527.94			$360.02	$2,842.92
Drainage Analysis and Design		74	$35.67	$2,639.58	$4,223.33			$995.12	$7,858.03
Roadway Plans		422	$39.71	$16,757.62	$26,812.19	$487.00	$80.00	$6,329.22	$50,466.03
Lighting Plans		12	$38.32	$459.84	$735.74	$22,000.00		$173.36	$23,368.94
Water main & Sanitary Plans and Specifications		312	$42.83	$13,362.96	$21,380.74		$99.00	$5,052.19	$39,894.89
Utility Coordination		32	$58.48	$1,871.36	$2,994.18			$705.50	$5,571.04
319 Grant Review and Coordination		20	$52.32	$1,046.40	$1,674.24			$394.49	$3,115.13
Storm water Permitting		16	$42.37	$677.92	$1,084.67			$255.58	$2,018.17
EOPC and Estimate of Time		12	$51.33	$615.96	$985.54			$232.22	$1,833.71
Meetings & Field Checks		48	$61.22	$2,938.56	$4,701.70		$313.50	$1,153.29	$9,107.05
Bidding Services		13	$49.37	$641.75	$1,026.80			$241.94	$1,910.49
Administration		14	$47.04	$658.50	$1,053.60			$248.25	$1,960.35
QC/QA		16	$70.00	$1,120.00	$1,792.00			$422.24	$3,334.24
Totals		1114		$47,101.46	$75,362.34	$30,089.50	$558.50	$17,838.23	$170,950.03

BLR 05610 (Rev. 9/08)

DIRECT COSTS AND SERVICES BY OTHERS

Data Collection and Geotechnical Engineering

Services by Others

Geotechnical Services

Borrings and Testing — $7,602.50

Sub-Total — **$7,602.50**

Topographic Survey

In-House Direct Costs

Field Visits

5 trips x 24 miles x $0.550 per mile = $66.00

Sub-Total — **$66.00**

Lighting Plans

Services by Others

Lighting Desigh and Coordination — $22,000.00

Sub-Total — **$22,000.00**

Utility Coordination

In-House Direct Costs

Meetings

2 trips x 90 miles x $0.550 per mile = $99.00

Sub-Total — **$99.00**

Roadway Plans

In-House Direct Costs

Postage - UPS

8 Package(s) x $10.00 per package = $80.00

Sub-Total — **$80.00**

Outside Direct Costs

Printing Services

Preliminary Plans

Plans to CLIENT - Bond Copies

77 sheets x 2 copy(ies) x $0.20 11"x17" per sheet = $30.80

Plans to Utilities

77 sheets x 4 copy(ies) x $0.40 22" x 34" per sheet = $123.20

Prefinal Plans

Plans to CLIENT - Bond Copies

77 sheets x 2 copy(ies) x $0.20 11"x17" per sheet = $30.80

Prefinal Specifications to the CLIENT

125 pages x 2 copy(ies) x $0.05 per sheet = $12.50

Final Plans

Final Plans to CLIENT - Bond Copies

77 sheets x 2 copy(ies) x $0.20 11"x17" per sheet = $30.80

Plans to Utilities

77 sheets x 4 copy(ies) x $0.40 22" x 34" per sheet = $123.20

Final Specifications to the CLIENT

125 pages x 2 copy(ies) x $0.05 per sheet = $12.50

Final Plans- Bidding Sets - Bond Copies

77 sheets x 8 copy(ies) x $0.20 11"x17" per sheet = $123.20

Sub-Total — **$487.00**

DIRECT COSTS AND SERVICES BY OTHERS

Meetings & Field Checks

In-House Direct Costs

Field Checks						
1	trips x	130	miles x	$0.550	per mile =	$71.50
Meeting(s) with CLIENT						
3	trips x	130	miles x	$0.550	per mile =	$214.50
Meeting(s) with IDOT						
1	trips x	50	miles x	$0.550	per mile =	$27.50
					Sub-Total	**$313.50**

Total In-House Direct Costs **$558.50**

Total Services by Others **$30,089.50**

Chicago Testing Laboratory, Inc.
30W114 Butterfield Road, Warrenville, IL 60555 p 630.393.CTL1 f 630.393.CTL7
18000 South Williams Street, Thornton, IL 60476 p 708.877.1801 f 708.877.6826
1348 Ridge Avenue, Elk Grove Village, IL 60007 p 847.228.1079 f 847.228.0633
P. O. Box 3395, Joliet, IL 60434 p 630.560.4464 f 630.560.4464
www.chicagotestinglab.com
info@chicagotestinglab.com
Testing • Inspection • Training • Consulting • Research • Geotechnical
Founded 1912

March 1, 2017

Mr. Ted Hamilton, P.E.
HR Green, Inc.
420 N. Front Street
McHenry, IL 60050

Re: Geotechnical Site Investigations & Report CTL Proposal No. EG17055
Proposed Heritage Park (Redevelopment of Woodbine Golf Course)
Homer Glen, Illinois

Dear Mr. Hamilton,

Chicago Testing Laboratory, Inc. (CTL) is pleased to present this estimate for the performance of geotechnical site investigations for the planned redevelopment of the site known as Woodbine Golf Course in Homer Glen, Illinois.

Scope of Planned Improvements

It is our understanding that the proposed project involves redevelopment of the existing Woodbine Golf Course site into a park area for the residents of Homer Glen, IL. The proposed park is currently named Heritage Park. Details of the planned park site are currently being developed. Grading of the site is anticipated and construction of lighted tennis courts, basketball courts and shelters are included in the concept design. Parking and roadway areas are also planned and pervious pavements are being considered as well as detention basins and bio swales for storm water management.

Scope of Work – Geotechnical Site Investigation

A geotechnical site investigation has been requested for the project. CTL understands that the objective of the geotechnical investigation would be to provide subsurface soil and groundwater information to be used by the Design Engineers as a basis for design of the development of the park. The following scope of work for the geotechnical site investigation has been given by *HR Green, Inc.*

1. Soil borings would be performed at accessible locations identified by the client. Planned boring locations will be staked in the field by *HR Green, Inc.* The soil borings will be performed by a subcontract drilling firm using an ATV mounted drill rig operated by an experienced union crew. Soil sampling will be performed using the standard penetration test (SPT) in accordance with ASTM D 1556. Representative samples of the soils encountered will be collected into glass jars with tight fitting lids. The samples and field logs will be submitted to the laboratory for testing and analysis. Water level measurements will be obtained and recorded during the site investigation as well. Delayed

measurements typically are scheduled for the business day following the completion of the soil borings.

a. A total of eight (8) borings extending to a depth of 5 feet below the existing surface grade (bgs)
b. A total of three (3) borings extending to a depth of 10 feet bgs.
c. A total of three (3) borings extending to a depth of 20 feet bgs.

2. Infiltration tests are included for the site investigation to determine infiltration rates for storm water management. A total of five (5) double ring infiltration tests have been requested. Test locations would be specified by the client. Tests would not be conducted at the same time as the soil boring work. Double ring infiltrometer testing would be conducted according to ASTM D 3385.

Costs for obtaining permits for the work were not anticipated and have not been included in this estimate.

Location of existing public utilities will be requested using the Illinois One-Call system (aka J.U.L.I.E.). J.U.L.I.E. member companies will locate existing utilities in the vicinity of the work areas identified. If any private utilities are present, we request that the client, or his representative, mark them prior to our arrival on site. We will not be responsible for damage to any unidentified or improperly marked utilities.

Scope of Work – Lab Testing (*CTL*)

Lab testing of soil boring samples typically includes testing to determine the physical properties of soils encountered and depends largely upon the type and condition of the soils encountered. The requested lab testing program includes the following items.

1. Water (Moisture) Content of Soil by Mass (ASTM D 2216)
2. Liquid and Plastic Limits ASTM D 4318)
3. Grain Size Analysis by Sieve and Hydrometer (ASTM D 422)
4. Soil Classification (ASTM D2487)
5. Organic Content of Soils by Wet Combustion Method (AASHTO T 194)
6. Unconfined Compressive Strength of Soil (ASTM D 2166)

Scope of Work – Environmental Consulting for Special Waste Disposal (*by Qualified Environmental Consultant & Analytical Testing Lab (as required)*)

The services of an environmental consulting firm were not included in the scope of work for this investigation.

Scope of Work – Summary Report

The results of field work and lab testing together with measurements, descriptions and observations made during the geotechnical site investigation will be compiled and presented on boring logs for soil borings completed. The boring logs detail the results of field testing such as the Standard Penetration Test (SPT), sampling method(s) and a detailed description of the material(s) encountered along with other information and observations recorded during the field investigation.

A summary report including general recommendations for construction will be prepared as well. General parameters will be included for footing design as needed as well as general site preparation, general earthwork, design considerations and construction recommendations

Results of infiltration testing trials will be reported in a supplemental report following completion of the requested field work.

Fee Determination

It is proposed that our fees be determined based on the unit rates and quantities indicated in the 'Schedule of Services and Fees' (estimate) given below. It is prepared in accordance with our understanding of the proposed work. We will do our best to stay within the estimated budget. This is not a lump sum estimate, *CTL* will invoice only for the actual items performed.

The estimate is based on full time daytime work scheduled on consecutive weekdays. If unforeseen conditions and restrictions, other than those mentioned herein, affect the reasonably regular scheduling of technical staff, this estimate may be withdrawn without notice. Consultations or additional work, beyond the scope indicated, may require additional budget(s) which will be negotiated at that time, if necessary.

Schedule

We are prepared to start planning and mobilization of staff and equipment soon after receipt of "Notice to Proceed" (NTP) instructions. We anticipate a minimum of 2-3 days to complete the field work. The soil borings and lab testing will likely be completed within approximately 3 weeks after receipt of the NTP. Please advise us if a specific deadline is to be met.

Closure

We appreciate the opportunity to work with you as your Geotechnical Engineering consultant. Please contact me if you require additional information. If this proposal is satisfactory, please execute the agreement and return one copy, for our files. By endorsing the proposal, it is agreed that *CTL* will be paid for services rendered.

Very truly yours,
CHICAGO TESTING LABORATORY, INC

Donald K. Sisson
Project Geologist

PROPOSAL ACCEPTANCE

CTL Proposal No. EG17055

Project Name: Geotechnical Site Investigations & Report
Proposed Heritage Park (Redevelopment of Woodbine Golf Course)
Homer Glen, Illinois
CTL Proposal No. EG17055

Estimated Total: $7,602.50

Please sign and return this acceptance form as your agreement to proceed with the scope of work as indicated within the referenced proposal. By signing this form, you agree to remit payment to CTL at the rates listed in the referenced proposal and agree to the general conditions (1p.) attached.

Company Name:_____

Contact Name: _____

Address: _____

_____

Telephone Number: _____

Fax Number: _____

The following hereby authorize this agreement between the listed party and Chicago Testing Laboratory, Inc. for the services as defined in the proposal referenced above:

Company Authorized Representative:	CTL Representative:
Signature:_____	Signature:_____
Printed Name:_____	Printed Name:_____
Date:_____	Date:_____

CTL Schedule of Services and Fees –
Geotechnical Site Investigations & Report CTL Proposal No. EG17055
Proposed Heritage Park (Redevelopment of Woodbine Golf Course)
Homer Glen, Illinois

Task 1 - Field Exploration

Item	Estimated Quantity Cost	Unit Rate Cost	Extension Cost
Permit fee(s), each			
Field Engineer, per hour (Boring and core layout)	0.0	$98.00	$0.00
Mobilization, each (ATV Drill Rig, Mob/Demob...)	1.0	$775.00	$775.00
Drilling, linear foot (0 to 30 ft. depth/soil)	130	$16.25	$2,112.50
Shelby Tubes, each	0	$34.00	$0.00
Field Engineer/Geologist, per hour	11	$98.00	$1,078.00
Infiltrometer Testing, per day (Specialty Equipment Fee/Labor Included)	1	$1,200.00	$1,200.00

Task 1 - Field Exploration - Budget Amount $5,165.50**
(**excludes cost of permits (if necessary))

Task 2 – Laboratory Testing (*CTL*)

Item	Estimated Quantity	Unit Rate	Extension
Water (Moisture) Content, each (ASTM D 2216)	52	$4.00	$208.00
Liquid and Plastic Limits, each ASTM D 4318	2	$99.00	$198.00
Sieve & Hydrometer, each (ASTM D 422)	2	$135.00	$270.00
Soil Classification, each (ASTM D2487)	2	$15.00	$30.00
Organic by Wet Combustion, each (AASHTO T 194)	1	$165.00	$165.00
Unconfined Compressive Strength, each (ASTM D 2166)	2	$65.00	$130.00

Task 2 -Laboratory Testing (*CTL*) - Budget Amount $1,001.00

Task 3 – Environmental Consulting Services (by qualified consultant)

Item	Estimated Quantity	Unit Rate	Extension
pH testing, per sample	0	$55.00	$0.00
Onsite sampling/ sample preservation, lump sum	0	$450.00	$0.00
Consulting, lump sum (Determines analytical tests / provides certification & forms as required for CCDD disposal)	0	$450.00	$0.00

Task 3 –Environmental Consulting Services - Budget Amount $0.00

Task 4 – Analytical Testing (by qualified testing firm)

Item	Estimated Quantity	Unit Rate	Extension
Analytical testing, lump sum	0	$245.00	$0.00

Task 4 – Analytical Testing - Budget Amount $0.00

Task 5 – Report

Item	Estimated Quantity	Unit Rate	Extension
Project Engineer, per hour (Boring logs and reporting)	12.0	$98.00	$1,176.00
Principal Engineer, per hour (Report review/recommendations)	2.0	$130.00	$260.00

Task 5 - Report - Budget Amount $1,436.00

Estimated Total $7,602.50

170346

Municipality	LOCAL AGENCY	Preliminary Engineering Services Agreement	CONSULTANT	Name
Village of Homer Glen				HR Green, Inc.
Township: Homer				Address: 420 N. Front Street
County: Will				City: McHenry
Project: Homer Glen Drainage Improvements				State: Illinois

THIS AGREEMENT is made and entered into this 14th day of March, 2017 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 Heritage Park Detention Basin, Bioswale and Mass Grading Design

Route Various Length NA Mi. NA FT (Structure No. NA)

Location Heritage Park (former Woodbine Golf Course) – 14240 W. 151st Street

Description:
Design of the two detention basins and bioswale identified in the *Woodbine Area Drainage Study*, preparation of contract documents, bidding services, 319 funding management and coordination, and construction observation.

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, 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 five (5) copies of the plans, special provisions, proposals and estimates. Additional copies of any or all documents, if required, shall be furnished to the LA by the ENGINEER at his actual cost for reproduction.
   - h. ☐ Furnish the LA with survey and drafts in quadruplicate 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.

(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 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 he will perform such work without expense to the LA, even though final payment has been received by him. He 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 him and will show his professional seal where such is required by law.

The LA Agrees,

1. **To pay the ENGINEER as compensation for all services performed as stipulated in paragraphs 1a, 1g, 1i, 2, 3, 5, 6, and Exhibit A attached a fee not to exceed the amount of $98,764.87**

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 services stipulated in paragraphs 1b, 1c, 1d, 1e, 1f, 1h, 1j & 1k of the ENGINEER AGREES at actual cost of performing such work plus 160 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 his actual cost. Subject to the approval of the LA, the ENGINEER may sublet all or part of the services provided under the paragraph 1b, 1c, 1d, 1e, 1f, 1h, 1j & 1k. If the ENGINEER sublets all or part of this work, the LA will pay the cost to the ENGINEER plus a five (5) percent service charge.

"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.

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 paragraphs 1a through 1g under 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 paragraphs 1a, through 1h and prior to the completion of such services, the LA shall reimburse the ENGINEER for his actual costs plus 160 percent incurred up to the time he 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 160 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 his responsibility to prepare a complete and adequate set of plans and specifications.

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 his 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 he/she 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 he/she 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 quadruplicate counterparts, each of which shall be considered as an original by their duly authorized officers.

Executed by the LA:

Village of Homer Glen (Municipality) of the State of Illinois, acting by and through its President and Board of Trustees

ATTEST:

By _____ Village Clerk

(Seal)

By _____

Title MAYOR

Executed by the ENGINEER:

HR Green, Inc.

420 N. Front Street

McHenry, IL 60050

ATTEST:

By _____

Title VICE PRESIDENT

By _____

Title Vice President

Exhibit A

Preliminary & Final Design Engineering
Scope of Services

Heritage Park Detention Basin, Bioswale and
Mass Grading Design

Develop Contract Documents, Provide Bidding Services, 319 Grant
Coordination and Construction Observation

Presented to:

Village of Homer Glen

Presented by:

HRGreen

March 14, 2017

TABLE OF CONTENTS

1.0 PROJECT UNDERSTANDING

The project area is located on the former Woodbine Golf Course at 14240 W. 151st Street. ENGINEER understands that LA is in the process of developing a park master plan to redevelop this property into Heritage Park. ENGINEER previously completed the *Woodbine Area Drainage Study* which included this park in the study area. As part of this study the construction of two detention basins around existing ponds as well as the addition of a bioswale were identified as water quality and stormwater management improvements. It is the ENGINEER understanding that the LA successfully applied for 319 Grant funding for the construction of these basins and bioswale. ENGINEER has experience utilizing 319 Grant funding for similar projects.

Assumptions

This contract is based upon the following details:

a. Conceptual plan developed by PRI will be available for review.
b. All work will be completed within existing easements and/or LA right-of-way. It is assumed that no easements will need to be established for the completion of these projects.
c. It has been assumed that the area within the project location is not a wetland and the area will be disturbed with no wetland/ACOE permitting/coordination required.
d. It is assumed that the project will not disturb a wetland, floodplain, waters of the U.S.
e. A Will County Stormwater Permit will be required and applied for. Additionally, a Notice of Intent (NOI) will be filed with the Illinois Environmental Protection Agency (IEPA) and the ENGINEER will coordinate with the Illinois Department of Natural Resources (IDNR) EcoCAT program and Illinois Historic Preservation Agency (IHPA).

2.0 SCOPE OF SERVICES

This project will include the design of the following items:

- Detention basins at northeast and southeast corner of the property as identified in the *Woodbine Area Drainage Study* Phase 2 improvements.
- Bioswale between basins at the northeast and southeast corners of the property as identified in the *Woodbine Area Drainage Study* Phase 2 improvements.
- Mass grading of the entire Heritage Park to accommodate future improvements.
- Proposed fishing pond.

One set of contract documents will be prepared for above mentioned items. Additionally, included in this contract will be bidding services, 319 funding management and coordination, and construction observation.

ENGINEER understands that the Village of Homer Glen(LA) may not want to complete all mass grading as part of this contract; however, ENGINEER suggests that mass grading for the entire site be prepared for the pusposes of ensuring that the overall drainage patterns are well established for the entire site as part of this contract. The extent of mass grading to be included in bid documents shall be determined by LA and ENGINEER during the 60% plan review. Mass grading not included as part of this contract can be included in future contracts consistent with the overall plan.

2.1 SURVEY SERVICES – TOPOGRAPHIC FIELD SURVEY AND DRAWING

ENGINEER will complete necessary review and field checks of previously completed survey to address any design related questions. A bathymetric survey will also be completed on the existing pond to be converted to a fishing pond at the southeast corner of the property.

2.2 ENGINEERING SERVICES

60% Design Phase – The following scope of services will be provided:

- **Document Preparation:** Prepare 60% Design Phase documents consisting of final design criteria, preliminary drawings, outline specifications, and written descriptions of the project. The project design and construction specifications will be in accordance with all Village requirements and standards; also IDOT design standards and requirements.

- **Additional Information:** Advise and meet with the LA if additional reports, data, information, or services are necessary and assist LA in obtaining such reports, data, information or services.

- **EOPCC:** Prepare and submit an Engineer's Opinion of Probable Construction Cost (EOPCC) based on 60% design plans

- **Furnish Review Copies:** Furnish two (2) full size and two (2) half size review copies of the 60% Design Phase documents and any other deliverables to LA.

90% Design Phase – The following scope of services will be provided:

- **Document Preparation:** Prepare 90% Drawings and Specifications indicating the scope, extent, and character of the work to be performed and furnished by Contractor. The final Drawings and Specifications will need to be in accordance with all IDOT standards and requirements.

- **Technical Information:** Provide-technical criteria, written descriptions, and design data for use in filing applications for permits from or approvals of governmental authorities having jurisdiction to review or approve the final design of the Project; coordinate on behalf of the LA in consultations with such authorities; and revise the Drawings and Specifications in response to directives from such authorities if required. The Engineer will coordinate with Will County to

obtain a stormwater permit, IDNR to complete an EcoCAT review, IHPA to complete a historical preservation review and IEPA to submit a NOI for coverate under Statewide NPDES Permit Number ILR-10.

- **EOPCC:** Prepare and submit an EOPCC based on 90% design plans.

- **Furnish Review Copies:** Furnish two (2) full size and two (2) half size review copies of the 90% Design Phase documents and any other deliverables toLA.

Final Plan and Bid Document Phase – The following scope of services will be provided:

- **Furnish Final Bid Documents:** Prepare and furnish six (6) full size and three (3) half size copies of final plans, and nine (9) copies of final special provisions and front end bidding documents.

- **EOPCC:** Prepare and submit an EOPCC based on final design plans and specifications. .

Permitting
Engineer will prepare and submit an application for a Will County Stormwater Management permit. Additionally, the Engineer will coorindate with IDNR to complete an EcoCAT review, IHPA to complete a historical preservation review and IEPA to submit a NOI for coverate under Statewide NPDES Permit number ILR-10. It is not aniticpated that there are any wetlands or Waters of the United States (WOTUS) on the site and therefore no permits will be applied for with the USACOE.

Storm Water Pollution Prevention Plan
ENGINEER will prepare a Storm Water Pollution Prevention Plan for the project. The plans will be prepared to comply with the provisions of the Statewide NPDES Permit Number ILR10 for Storm Water Discharges from Construction Site Activities, and include a site description, planned controls, proposed maintenance practices, erosion control inspection procedures, application of non-storm water discharge measures, Contractor Certification Statement. ENGINEER will prepare a Notice of Intent (NOI) for submittal to the Illinois Environmental Protection Agency (IEPA) for coverage under the ILR10 General NPDES Permit.

2.3 319 GRANT COORDINATION

ENGINEER is familiar with the EPA 319 Grant funding process and will complete necessary items to comply with grant requirements including the following:

1. Submit Preliminary Design Plans and Forms to IEPA
2. Submit Final Design Plans and Forms to IEPA
3. Land Owner Agreements
4. Develop 10-Year Operations and Maintenance Plan
5. Educational Sign Design
6. Submit Final Project Report to IEPA
7. Submit Reimbursement Requests to IEPA

2.4 CONSTRUCTION OBSERVATION & ADMINISTRATION

Following is a breakdown of the various tasks associated with the construction observation services to be provided by ENGINEER:

Project Start-up
ENGINEER construction engineer will provide start-up documentation which shall include set up of the job filing system, videotape pre-existing site conditions, checking and verifying site datum, preparing for the pre-construction meeting, and familiarizing himself with the approved plans and special provisions. Resident Engineer to coordinate with the contractor to schedule and conduct a pre-construction meeting,

obtain and review the contractor's progress schedule, materials, material suppliers, specialized equipment and quality control plans. The construction engineer will also request shop drawings at this time.

Shop Drawing Submittal Review
Scope will include review and approval of shop drawings for conformance to contract plans and specifications. Additional time is budgeted during construction for Project Manager to assist the Construction Engineer with plan interpretation, answers to questions and responses to proposed changes initiated by the Village and/or Contractor.

Construction Observation
The scope for the duration of the contract will include weekly observation of key construction activities including erosion control measures, mass grading and restoration on a part-time basis, preparing construction progress reports, coordination of shop drawing review as well as consultation of field conflicts and changes with the design engineer, and review and processing pay estimates. It is assumed that one pay estimate will be processed per month for the duration of the project followed by one final pay estimate at the project's completion. Documentation of the contractor's weekly activities is part of the construction engineer's tasks. Weekly reports will accurately track the contractor's activities in relation the approved progress schedule and the amount of workable days.

The man-hours required for construction observation are based on the assumption of anticipated project duration and that the contractor will complete the project on time in accordance with the contract plans and special provisions. This contract includes 148 hours hours to be spent on construction observation. This time includes:

- 4 hours for a pre-construction meeting
- 12 hours per week for 12 weeks (144 hours total) to complete the following tasks:
    - erosion and sediment control inspections
    - mass grading and earthwork observation
    - restoration observation
    - completing pay requests
    - construction progress reports

Any additional work due to an extended schedule dictated by the contractor's performance, unanticipated work due to differing site conditions or a significant change in scope of the project shall be considered out of scope work requiring an amendment to this contract.

Project Close-Out
Upon notice of substantial completion of the project, ENGINEER construction engineer will conduct a pre-final inspection of the project and preparing a list of punchlist items, to develop pre-final documentation and balancing change orders, to exchange documentation with the contractor and the Village, and contract close out. A final walk-through will be held with the contractor and Village representatives to obtain final acceptance and initiate warranty periods. Final project records will be completed. The records will be boxed, indexed and delivered to the client.

2.5 PROJECT ADMINISTRATION

Project Administration and Coordination will involve the management oversight of the project which will include the on-going review of the project execution, documentation, schedule and budget, contract file management, and general correspondence between ENGINEER, the LA, and prospective contractors.

Our experience gained in completing projects for the LA and other municipal clients has led us to an understanding of the critical nature of early project coordination both with public agencies and affected property owners/residents. By maintaining open levels of communication from the beginning with all of the stakeholders involved in the process, we gain access to their invaluable input and support. Early project coordination also allows us to ensure that those items requiring action from other agencies are submitted early in the project in order to maintain the project schedule. Project coordination work will include:

1. Attendance at one kickoff meeting. Within 7 days of the Notice to Proceed, ENGINEER will schedule and conduct a project kickoff meeting. ENGINEER will prepare an agenda which shall include items pertaining to

    - Project schedule;
    - Roles and responsibilities of the parties;
    - Points of contacts;
    - Key milestones and deliverables;
    - Communication plan;
    - Discussion of items identified in project design considerations for determining project goals and objectives, design criteria, etc.
    - Other items as deemed necessary and requested by the Village

2. Attendance at one coordination meeting to review the engineering and contract documents prior to the bid opening. ENGINEER will prepare a meeting agenda and sign-in sheet.
3. The scheduling and attendance of the bid opening to read the bids in accordance with State and LA ordinance.
4. The scheduling and attendance of one Pre-Construction meeting. ENGINEER will prepare a meeting agenda and sign-in sheet.
5. Project documentation is also critical to project success. ENGINEER will prepare/distribute meeting minutes of all meetings attended which will detail the discussions of attendees along with the action required of the attendees.

3.0 DELIVERABLES INCLUDED IN THIS AGREEMENT

3.1 CONTRACT DOCUMENTS

It is assumed that each project will be bid separately. ENGINEER understands that project costs are controlled best through the preparation of a detailed and accurate contract proposal booklet and specifications. Plans will be developed to predetermined milestones for submittal to the LA for review and approval. For a project of this type three (3) submittals 60%, 90% and final would be made. The 60% and 90% plans would be submitted to the LA for review and comment. The comments would then be incorporated into the plans and a disposition of comments submitted.

ENGINEER will develop and assemble the contract specifications and documents for this project in accordance with LA policies, procedures, and standards. The contract proposal documents would include the following:

- Contract Plans
    - Cover Sheet;
    - Project Location Map;
    - Summary of Quantities;
    - Plan and Profile Sheets
    - Erosion Control Plan;
    - Restoration Plan; and
    - Construction Details;

- Contract Documents
    - Notice to Bidders;
    - Index for Supplemental Specifications and Recurring Special Provisions;
    - Check Sheet for Recurring Special Provisions;
    - Check Sheet for Recurring Local Roads and Streets Special Provisions;
    - Project Special Provisions;
    - IDOT District 1 Special Provisions;
    - IDOT Bureau of Local Roads and Streets Special Provisions;

- IDOT Bureau of Design and Environment Check Sheet and Special Provisions;
- Will County Prevailing Wage Rates, latest edition;
- IDOT Highway Standards;
- Proposal;
- Schedule of Prices;
- Signatures sheet;
- Apprenticeship or Training Program Certification;
- Affidavit of Availability;
- Local Agency Bid Bond, and;
- Estimate of Construction Cost

3.2 BIDDING SERVICES

Bid Administration
ENGINEER will assist the LA to coordinate advertisement of the project in accordance with State statutes and LA ordinances. The project will be publically advertised for a minimum of two weeks in the IDOT Local Roads Bulletin as well as the local newspaper. ENGINEER will distribute bid documents to qualified contractors. All associated printing costs are included in the cost of the contract.

Following the public bid opening, ENGINEER will review all bids received to determine compliance with the bidding requirements. Bid tabulations will be developed to ensure bid prices are accurate and for illustration for subsequent contract award. Upon review of the bids ENGINEER will assemble the contract documents for execution. In addition to the bidding documents listed above, the contract documents will include the following sheets:

- Contract
- Contract Bond
- Sample forms of Certificates of Insurance to be issued if contract is awarded

Upon execution by the Contractor, ENGINEER will submit a recommendation letter to the LA for contract award.

4.0 ITEMS NOT INCLUDED IN AGREEMENT/SUPPLEMNTAL SERVICES

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

1. Sewer Televising/Inspections
2. Flow monitoring
3. Cultural/Environmental Surveys including wetland delineations
4. Permitting and/or regulatory agency fees
5. Easement Documents / Easement Exhibits
6. Geotechnical investigation

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

5.0 SERVICES BY OTHERS

ENGINEER proposes to use AES as a sub-consultant. AES is the author of the Watershed Plan for the Long Run Creek where this project is located; and they will provide valuable insights in the development of a restoration plan and 10-year operations and maintenance plan as required by the 319 Grant funding. ENGINEER and AES have successfully worked on numerous projects that were successful in obtaining EPA Section 319 Grant funding.

6.0 CLIENT RESPONSIBILITIES

The following items are required from the LA:

1. Access to available preliminary Heritage Park conceptual plans
2. Past reports and data, if applicable
3. Access to Conference Room for meetings.

7.0 PROFESSIONAL SERVICES FEE

The following details the engineering costs associated with the scope of work detailed above.

Exhibit A - Phase II Engineering

Route: Heritage Park Site Design
Local Agency: Homer Glen

Section: 17-00018-00-PV
Project:
Job No.

*Firm's approved rates on file with IDOT's Bureau of Accounting & Auditing:	
Overhead Rate (OH)	160.00%
Complexity Factor (R)	0.00
Calendar Days	200

Method of Compensation:

Cost Plus Fixed Fee 1	☒	14.5%[DL + R(DL) + OH(DL) + IHDC]
Cost Plus Fixed Fee 2	☐	14.5%[DL + R(DL) + 1.4(DL) + IHDC]
Cost Plus Fixed Fee 3	☐	14.5%[(2.3 + R)DL + IHDC]
Specific Rate	☐	
Lump Sum	☐	

Cost Estimate of Consultant's Services in Dollars

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead*	Services by Others	In-House Direct Costs (IHDC)	Profit	Total
Surveying Services		46	$38.55	$1,773.30	$2,837.28		$30.00	$672.88	$5,313.46
Engineering Services	(See	457	$44.57	$20,368.49	$32,589.58	$3,500.00	$35.00	$7,684.00	$64,177.07
319 Grant Coordination	Exhibit C)	57	$40.90	$2,331.30	$3,730.08	$1,500.00		$878.90	$8,440.28
Construction Observation		148	$34.04	$5,037.92	$8,060.67		$210.00	$1,929.75	$15,238.34
Project Administration		43	$42.55	$1,829.65	$2,927.44		$130.00	$708.63	$5,595.72
Totals		**751**		**$31,340.66**	**$50,145.06**	**$5,000.00**	**$405.00**	**$11,874.15**	**$98,764.87**

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Exhibit C - Phase II Engineering

Average Hourly Project Rates

Route	Heritage Park
Section	
County	Will
Job No.	
PTB/Item	

Consultant HR Green, Inc.

Date 02/27/17

Sheet 1 **OF** 1

Payroll Classification	Avg Hourly Rates	Total Project Rates			Surveying Services			Engineering Services			319 Grant Coordination			Construction Observation			Project Administration		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	$70.00	19	2.53%	1.77				9	1.97%	1.38	7	12.28%	8.60				3	6.98%	4.88
Sr. PM	$70.00	0																	
PM	$54.15	219	29.16%	15.79				197	43.11%	23.34	8	14.04%	7.60	2	1.35%	0.73	12	27.91%	15.11
PE II	$42.00	0																	
PE I	$34.65	180	23.97%	8.30				92	20.13%	6.98	34	59.65%	20.67	26	17.57%	6.09	28	65.12%	22.56
Staff Eng II	$28.75	40	5.33%	1.53				32	7.00%	2.01	8	14.04%	4.04						
Design Engineer	$39.25	124	16.51%	6.48				124	27.13%	10.65									
Eng Tech	$31.30	0																	
Surv. III	$47.90	26	3.46%	1.66	18	39.13%	18.74							8	5.41%	2.59			
Surv. II	$32.55	143	19.04%	6.20	28	60.87%	19.81	3	0.66%	0.21				112	75.68%	24.63			
Surv. I	$28.75	0																	
Admin.	$25.75	0																	
TOTALS		751	100%	$41.73	46	100%	$38.55	457	100%	$44.57	57	100%	$40.90	148	100%	$34.04	43	100%	$42.55