

Municipality McHenry Township Road District	L O C A L A G E N C Y	Preliminary Engineering Services Agreement	C O N S U L T A N T	Name HR Green, Inc.
Township McHenry				Address 420 N. Front Street
County McHenry				City McHenry
Project Indian Ridge Subdivision, Unit 1 & 2				State Illinois

THIS AGREEMENT is made and entered into this _____ day of _____, 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 Indian Ridge Subdivision, Unit 1 & 2 Street Improvements

Route Various Length 5.91 Mi. 31,195 FT (Structure No. NA)

Termini See Location Map attached as Exhibit D

Description:

Provide plat of dedication, topographic survey, geotechnical analysis, perform drainage analysis, provide roadway profile and cross sections, develop contract documents and provide bidding services for the street improvements in Indian Ridge Subdivision, Unit 1 & 2. The project will include pipe culverts/storm sewers, drainage structures, ditch/parkway grading, profile adjustments, concrete gutter/shoulders, tree removal, erosion control plans and other necessary collateral work required to complete the specified work.

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 not to exceed amount of \$205,294.40.

- a. A sum of money equal to _____ percent of the awarded contract cost of the proposed improvement as approved by the DEPARTMENT.
- b. A sum of money equal to the percent of the awarded contract cost for the proposed improvement as approved by the DEPARTMENT based on the following schedule:

Schedule for Percentages Based on Awarded Contract Cost

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

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

2. To pay for 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:

McHenry Township Road District of the

ATTEST:

State of Illinois, acting by and through its

By _____

Highway Commissioner

Township Clerk

By _____

(Seal)

Title Highway Commissioner

Executed by the ENGINEER:

HR Green, Inc.

420 N. Front Street

ATTEST:

McHenry, IL 60050

By  _____

By *Abham Chaudhry*

Title Project Engineer

Title Vice President

Exhibit A

Preliminary & Design Engineering Scope of Services

Indian Ridge Subdivision, Unit 1 & 2

Plat of Dedication, Topographic & Boundary Field Survey, Roadway Engineering, Develop Contract Documents and Provide Bidding Services

Presented to:

McHenry Township Road District

Presented by:



October 2016
Revised December 2016
Revised January 2017

PROJECT UNDERSTANDING

HR Green understands that the Indian Ridge Non-dedicated Subdivision Roadways, which are currently under the jurisdiction of the McHenry County Division of Transportation, requires roadway improvements prior to jurisdictionally transferring the roadways to the McHenry Township Road District. See Exhibit D for the Location Map. The project will include improvements to the streets within the Indian Ridge Subdivision, Unit 1 & 2, bringing these roads up to McHenry County Non-dedicated Subdivision Roadway requirements.

The improvements undertaken by the Road District will include the right of way improvements and pavement construction including hot-mix asphalt patching and resurfacing.

It should be noted that the roadway segment of Oak Street between East Lakeshore Drive and Wonder Lake Drive was previously upgraded as part of the Wonder Center Subdivision improvements in 2015 to serve Road District maintenance vehicles. Oak Street resides within Indian Ridge Subdivision Unit 1. Surveying services to provide the Plat of Dedication for this segment of Oak Street is included under this agreement, but engineering design is not part of the scope as the roadway segment has previously been upgraded to Road District standards.

The Road District anticipates starting construction in 2017.

SURVEY SERVICES

Right of Way Survey

HR Green will recover existing right of way evidence for approximately 31,195 feet along the roadways within Indian Ridge Subdivision, Unit 1 & 2 with the above noted exception of Oak Drive, in which we already have on file. HR Green will calculate the existing right of way as shown on the provided right of way documents and/or adjacent recorded plat of subdivisions to include on the base map.

Roadway Survey

Roadway Survey will include the area lying within the existing right-of-way and 10 feet beyond for approximately 31,195 feet along the roadways within Indian Ridge Subdivision, Unit 1 & 2 with the above noted exception of Oak Drive, in which we already have on file. Road cross sections will be surveyed at driveways and critical cross sections, not to exceed 50 foot intervals. Survey will include existing visible features and improvements. Existing utilities will be surveyed from visible flags or markings. Storm structures will be surveyed, including rim elevation, invert pipe size, direction and elevation as observed at manholes. Survey will reference existing NGS control stations, Illinois State Plane Coordinate System East Zone NAD83(2011). Elevations will be based upon NAVD88 or local benchmarks.

Tree Survey

HR Green will locate existing trees greater than six (6) inches in diameter, lying outside a treeline, within the project limits. Tree size and type (coniferous or deciduous) will be referenced within the topographic base map.

Site Topography Survey Base Map

HR Green will generate a MicroStation drawing of the existing features collected along the roadway according to IDOT standards. One (1) foot contours will be generated with the elevations referenced to NAVD88 (U.S. Survey Feet). HR Green will provide a MicroStation drawing with existing features and improvements within the project limits to be shown. Topographic Survey base map will show tags to existing visible utilities and features.

Well and Septic Research

HR Green will create a list of the parcels adjacent to the right of way within Indian Ridge Subdivision, Unit 1 & 2. HR Green will create a Freedom of Information Request (FOIA) for McHenry County Planning and Development and Health Department to determine if plans or records of the existing septic systems are available. HR Green will review the county documents to show the approximate planned location of the septic system on the parcel.

Plat of Dedication

HR Green will prepare a plat of dedication and legal description for each area described above. It is assumed that two (2) plats of dedication will be prepared for Indian Ridge Subdivision, Unit 1 & 2 as required for each party dedicating right of way. HR Green will provide five (5) paper copies and a PDF copy for review prior to plotting to mylar for signature and recording by the Road District and County.

ENGINEERING SERVICES

Project Kickoff Meeting

HR Green will attend an introductory kick-off meeting with Road District, County and Village of Wonder Lake staff. Input from the Road District during this meeting will help develop a shared vision for the area. The project schedule and scope will be reviewed.

Pavement and Soils Investigation

HR Green will retain the services of a geotechnical sub-consultant to perform the geotechnical investigation for the project (see attached proposal from Chicago Testing Laboratory in Exhibit C). The tasks to be performed as part of the pavement and soils investigation will include pavement borings with soil sampling, testing and analysis.

Soil samples will also be tested for contamination using a Photo Ionization Detector (PID), selecting and submitting samples to an analytical laboratory and preparation of the IEPA Certification Report.

Utility Coordination

HR Green will initiate utility coordination by contacting JULIE and individual utility companies that have facilities along the project limits. HR Green will work with the Road District and private companies to obtain preliminary utility data (including well and/or septic locations) and to categorize the needs for each utility including relocation, protect-in-place, modification or abandonment.

Detailed Drainage Analysis

HR Green will analyze the profile and drainage area for the consideration of adding new and/or the replacement of existing storm sewers. The anticipated storm sewer construction will be performed in order to drain low points within the right-of-way where feasible. HR Green will coordinate with the County, Township and Village to determine the location of existing field tiles and if they will be impacted by construction.

HR Green will review the topographic data perform a brief drainage analysis to ensure replacement storm sewer pipes are adequately sized. In addition, technical memorandum and erosion control plans will be prepared for submittal of McHenry County Planning and Development for concurrence of the proposed improvements. The storm sewer improvements will be shown within the contract

documents and depict proposed storm structure locations, storm sewer pipe alignment and profiles, pipe sizes and slope, construction details, pavement and/or parkway restoration and storm sewer specifications.

It has been assumed that a Location Drainage Study or Hydraulics Study will not be required for this project. The drainage area releases overland into Wonder Lake. Therefore it is anticipated coordination and permits will not be required as this work is considered non-qualified and permits will not be required. Based upon field review of the project area we do not anticipate involvement with Army Corps of Engineers as there are no wetlands.

Storm Water Pollution Prevention Plan

HR Green will prepare a Storm Water Pollution Prevention Plan for the proposed improvements. The plans will be prepared to comply with the provisions of the NPDES Permit Number ILR40 for discharges from small separate storm sewer systems, and include a site description, planned controls, proposed maintenance practices, erosion control inspection procedures, application of non-storm water discharge measures, Contractor Certification Statement and preparation of the Notice of Intent for Road District signature.

Roadway Design

HR Green will perform a field evaluation along each street within the project limits to verify driveway types, identify special landscaping elements, investigate existing pipe culverts and examine existing retaining walls. HR Green will also coordinate with the Road District to design a full depth Hot Mix Asphalt (HMA) pavement that meets McHenry County Non-dedicated Subdivision Roadway requirements.

The pavement reconstruction will be coordinated with the drainage improvements as we anticipate new concrete gutter along East Lake Shore Drive as well as along the steep roadway slopes running towards the lake east of East Lake Shore Drive. It is anticipated the roadway reconstruction will involve slight profile adjustments to improve drainage, while also being mindful of driveway impacts.

HR Green will also analyze geometric improvements at the intersections to reduce vehicle encroachment onto the adjacent parkway. Intersection grading plans will be developed to provide detailed elevations of the reconstructed pavement and pipe culverts/storm structures.

Landscaping and Restoration

A detailed restoration plan will be included in this project due to the potential impacts to existing landscaping features. Detailed construction plans are critical to ensure the contractor has sufficient direction and pay items to restore the landscape back to its original condition.

Erosion Control

An erosion control plan will be prepared using best management practices that makes recommendations to control erosion and retain sediment on the construction site. The erosion control plan will be developed in accordance with the latest McHenry County standards and specifications.

Maintenance of Traffic Analysis

An analysis of how the proposed improvements will be constructed and the maintenance of traffic and facilities will be discussed with the Road District. It is assumed applicable IDOT Highway Standards will be used for traffic control and protection during construction and a detour plan will not be required. Construction sequencing procedures will be detailed in the plans and specifications to ensure that temporary access to local traffic and driveways are provided at the end of each work day.

It is anticipated that construction may require day-time lane closures. Maintenance-of-traffic control specifications and notes will identify and detail the allowable contractor operations, and required traffic control devices will be included in the bidding documents.

Contract Documents

HR Green understands that project costs are controlled best through the preparation of a detailed and accurate contract proposal booklet and specifications. HR Green is fully committed to details and clarity in the preparation of plans and contract documents.

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 pre-final (90%) and final engineering documents. Comments received will be addressed and a disposition of comments provided to the Road District, County and Village of Wonder Lake. Final design drawings will also be submitted to the Road District, County and the Village of Wonder Lake 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.

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

Contract Plans

- Cover Sheet;
- Index/General Notes/Standards;
- Summary of Quantities;
- Typical Sections;
- Alignment, Ties and Benchmarks;
- Existing Removal Plans
(dual pane at 20 scale – 31,195 centerline feet +/- 32 sheets);
- Roadway and Drainage Plan and Profiles
(20 scale – 31,195 centerline feet +/- 63 plan sheets);
- Erosion Control, Restoration, Pavement Marking and Signing Plans
(dual pane at 20 scale – 31,195 centerline feet +/- 32 sheets);
- Intersection Grading Plans
(10 scale – 2 intersections per sheet +/- 16 sheets);
- Construction Standard Details;
- Plat of Highways;
- Cross Sections
(at every driveway plus 50' intervals – 31,195 centerline feet +/- 1,275 cross section = +/- 255 sheets).

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;

- McHenry County Prevailing Wage Rates, latest edition;
- IDOT Highway Standards;
- Proposal;
- Schedule of Prices;
- Signatures sheet;
- Affidavit of Availability;
- Local Agency Bid Bond;
- Estimate of Time, and;
- Estimate of Construction Cost

Special Provisions

HR Green will prepare contract special provisions for the project. The document will include 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 Standard Specifications for Road and Bridge Construction.

Estimate of Time

HR Green will complete the Estimate of Time (BDE 220A) as part of the pre-final and final submittals to the Road District, County and Village of Wonder Lake.

Construction Cost Estimates

Opinions of probable construction cost will be developed and refined throughout the design process so that the Road District has the latest cost estimate. These costs will be determined using pay items and the latest historical unit prices available for the area.

Bidding Assistance

HR Green will assist the Road District to coordinate advertisement of the project in accordance with State statutes and Road District 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. HR Green will prepare reproducible plans and bidding documents and respond to questions during the bidding process.

Bid Recommendation

HR Green will attend the bid opening and prepare the Engineer's Estimate of Cost. Following the bid opening, HR Green 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, HR Green 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, HR Green will submit a recommendation letter to the Road District for contract award.

Project Administration, Coordination and Meetings

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 HR Green, the Road District, and prospective contractors.

Our experience gained in completing projects for our 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. The scheduling and attendance of an initial kickoff meeting with the Road District, County and Village of Wonder Lake to review the overall project and schedule to ensure the goals and objectives of the Road District, County and Village of Wonder Lake will be satisfied.
2. The scheduling and attendance of design review meeting with the Road District to review the final design and anticipated costs prior to advertisement for bids.
3. The scheduling and attendance of the bid opening to read the bids in accordance with State and Road District ordinance.
4. A plan in hand review at the pre-final stage with the Road District, County and Village of Wonder Lake to review the existing conditions and proposed improvements prior to plan finalization and bidding.
5. Meeting with the Syba residence the Road District, and County to introduce the proposed improvements and establish communication protocol.
6. Project documentation is also critical to project success. HR Green will prepare/distribute meeting minutes of all meetings attended which will detail the discussions of attendees along with the action required of the attendees.

ITEMS NOT INCLUDED

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

- A. Temporary or Permanent Easements;
- B. Water Main Design and/or Plans;
- C. Location Drainage Study;
- D. Public Informational Meetings;
- E. County Clerk fees and record mylar copies with Recorder of Deeds;
- F. Well and septic field survey.

Items not included in the agreement can be provided by HR Green under separate agreement, if desired.

OPTIONAL SCOPE & FEE

Optional services to be added to the scope of services at the discretion of the Road District and/or County.

Well and Septic Field Survey

HR Green will provide surveying services to survey the visible well and septic fields lying adjacent to the roads within Indian Ridge #1 and #2 Subdivision. Survey will include the area within 10 feet of the existing right of way. Survey will include visible existing wells and septic tank covers, and approximate visible outline of the septic field. Survey will reference existing NGS control stations, Illinois State Plane Coordinate System East Zone NAD83(2011). Elevations will be based upon NAVD88 or local benchmarks. Survey will be performed before May 10, 2017 during Spring conditions. HR Green will NOT perform any excavation or probing for existing septic lines. Only visible evidence will be surveyed.

HR Green will add the existing visible wells and septic areas collected along the roadway to the MicroStation base drawing in accordance with IDOT standards. One (1) foot contours will be generated with the elevations referenced to NAVD88 (U.S. Survey Feet). HR Green will provide a MicroStation drawing with existing features and improvements within the project limits to be shown.

Optional Task	Approx. Parcels	Manhours	Direct Costs	Not to Exceed Cost
Well and Septic Field Survey	450	300	\$324* mileage	\$33,300
Sub-Total				\$33,624.00

Exhibit B
COST PLUS FIXED FEE
COST ESTIMATE OF CONSULTANT SERVICES

DF-824-034
REV 12/04

FIRM
Project
PRIME/SUPPLEMENT

HR Green Inc.
Indian Ridge Unit 1 & 2
Prime

OVERHEAD RATE
COMPLEXITY FACTOR

1.6
0

DATE 01/07/17

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
Plats of Dedication	100	3,689.20	5,902.72	300.00	1,365.00				11,256.92	5.48%
Topographic & Boundary Survey	530	18,397.13	29,435.41	428.00	6,806.94				55,067.47	26.82%
Data Collection/Field Investigation	50	1,831.97	2,931.15	917.50	677.83				6,358.45	3.10%
Cover Sheet/Gen. Notes/Benchmarks	2	64.16	102.66		23.74				190.56	0.09%
Typical Sections	4	166.31	266.10		61.54				493.95	0.24%
Alignment, Ties & Benchmarks	8	256.64	410.62		94.96				762.22	0.37%
Existing Removal Plans	174	6,037.86	9,660.57		2,234.01				17,932.44	8.73%
Roadway & Drainage Plan & Profiles	275	9,581.90	15,331.03		3,545.30				28,458.23	13.86%
Erosion Control & Restoration Plans	28	974.23	1,558.77		360.46				2,893.46	1.41%
Intersection Grading Plans	44	1,487.51	2,380.02		550.38				4,417.90	2.15%
Construction Standard Details	8	256.64	410.62		94.96				762.22	0.37%
Cross Sections	325	10,805.95	17,289.52		3,998.20				32,093.66	15.63%
Bid Documents & Special Provisions	40	2,232.32	3,571.71	1,944.00	825.96				8,573.99	4.18%
Pay Item & Quantity Development	90	3,457.12	5,531.39		1,279.13				10,267.65	5.00%
Construction Cost Estimates	8	408.62	653.79		151.19				1,213.60	0.59%
QA/QC	32	1,785.86	2,857.37		660.77				5,304.00	2.58%
Bidding Assistance	8	408.62	653.79	300.00	151.19				1,513.60	0.74%
Bid Recommendation	6	36.00	57.60		13.32				106.92	0.05%
Project Administration/Meetings	36	1,838.19	2,941.10		680.13				5,459.42	2.66%
Geotechnical Investigation	0	0.00	0.00		0.00		5,698.00		5,698.00	2.78%
Well and Septic Research	60	2,010.01	3,216.02	500.00	743.70				6,469.74	3.15%
TOTALS	1,828	65,726.23	105,161.96	4,389.50	23,575.00	0.00	5,698.00	0.00	205,294.40	100.00%

AVERAGE HOURLY PROJECT RATES

FIRM HR Green Inc.
Project Indian Ridge, Unit 1 & 2
PRIME/SUPPLEMENT Prime

DATE 01/07/17

SHEET 1 OF 4

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJECT RATES			Plats of Dedication			Topographic & Boundary Survey			Data Collection/Field Investigation			Cover Sheet/Gen. Notes/Bench			Typical Sections		
		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	1.04%	0.73															
Project Manager	51.08	239	13.07%	6.68							12	24.00%	12.26				2	50.00%	25.54
Project Engineer	32.08	662	36.21%	11.62							25	50.00%	16.04	1	50.00%	16.04			
Survey Crew Chief	38.35	365	19.97%	7.66	80	80.00%	30.68	265	50.00%	19.17									
Staff Land Surveyor	31.08	325	17.78%	5.53	20	20.00%	6.22	265	50.00%	15.54									
Sr Design Tech	32.08	218	11.93%	3.83							13	26.00%	8.34	1	50.00%	16.04	2	50.00%	16.04
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TOTALS		1828	100%	\$36.03	100	100%	\$36.89	530	100%	\$34.71	50	100%	\$36.64	2	100%	\$32.08	4	100%	\$41.58

EXHIBIT B
DIRECT COSTS
MCHENRY TOWNSHIP ROAD DISTRICT

Plats of Dedication

In-House Direct Costs

Miscellaneous - Title Reports and ROW Documents

Sub-Total \$300.00
\$300.00

Topographic & Boundary Survey

In-House Direct Costs

Mileage

40 trip(s) x 20 miles x \$0.535 per mile =

Sub-Total \$428.00
\$428.00

Data Collection/Field Investigation

In-House Direct Costs

Preliminary Plans to Utility Companies

400 sheets x 4 copy(ies) x \$0.54 per sheet = 22" x 34"

\$864.00

Mileage

5 trip(s) x 20 miles x \$0.535 per mile =

Sub-Total \$53.50
\$917.50

Bid Documents & Special Provisions

In-House Direct Costs

Final Plans to Utility Companies

400 sheets x 4 copy(ies) x \$0.54 per sheet = 22" x 34"

\$864.00

Final Plans to Road District, County, Village & Contractor

400 sheets x 5 copy(ies) x \$0.54 per sheet = 22" x 34"

\$1,080.00

Sub-Total **\$1,944.00**

Bidding Assistance

In-House Direct Costs

Project Advertisement - Northwest Herald

\$250.00

Postage - UPS

2 Package(s) x \$25.00 per package =

\$50.00

Sub-Total \$300.00
\$300.00

Well and Septic Research

In-House Direct Costs

Miscellaneous - Well & Septic Plans/Records from Planning & Development

\$500.00

Sub-Total \$500.00
\$500.00

Total In-House Direct Costs

\$4,389.50



Founded 1912

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 708.877.6926
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

Testing • Inspection • Training • Consulting • Research • Geotechnical

EXHIBIT C

www.chicagotestinglab.com
info@chicagotestinglab.com

December 21, 2016

Mr. Jeffrey Strzalka, P.E.

HR Green, Inc.

420 N. Front Street

McHenry, IL 60050

Re: 2017 Road Program CTL Proposal No. EG16249R1
Pavement Cores and Shallow Soil Investigation
Various Streets
McHenry Township, IL

Dear Mr. Strzalka,

Chicago Testing Laboratory, Inc. (CTL) is pleased to present this estimate for the performance of a series of pavement cores and shallow soil investigations for the 2017 Road Program in McHenry Township, Illinois.

Scope of Planned Improvements

It is our understanding that street pavement improvements including removal of surface pavement by milling and resurfacing of existing streets is being considered. Portions of a total of 15 or more streets are included in the 2017 Road Program.

Scope of Work – Pavement Core Investigation

CTL understands that the objective of the investigation would be to obtain a series of pavement cores to determine the existing pavement condition as well as the thickness and moisture content of the aggregate sub base. The data and information compiled from the investigation is intended to provide the basis for design of the planned mill and overlay resurfacing of the existing HMA roadways. Accordingly, **HR Green, Inc.** has proposed a total of 30 pavement cores at locations identified by **HR Green, Inc.** The pavement at each location will be cored using a conventional coring machine equipped with a 3 or 4 inch diameter diamond cutting barrel. The cored sections would be labelled and returned to CTL facilities for measurement and documentation of pavement type, condition and thickness.

Scope of Work – Shallow Soil Investigation

In addition, **HR Green, Inc.** has proposed a total of six (6) of the 30 pavement cores performed are to include aggregate base course and shallow subgrade soil investigations as well. These locations would be identified by **HR Green, Inc.** prior to the beginning of the work. After removal of the cored pavement sections, the aggregate base course (if encountered) and sub grade soil would be investigated (at the six (6) core locations identified only). The aggregate base and subgrade soil layers would then be investigated directly using a hand auger and hand tools as required. Representative sample of the



aggregate base material and subgrade soil will be collected for testing from each of the six (6) locations. The thickness of the aggregate base layer would be measured directly and recorded. The shallow soil investigations will extend to a depth of approximately 3 feet below the existing pavement surface, if possible.

Investigation of the aggregate base material and sub grade soil is proposed to be done by direct removal or excavation of the materials using a hand auger. The success of hand auger investigations is largely dependent on the type of the materials encountered. Aggregates with nominal maximum sizes of up to 1 inch can usually be removed with a hand auger or similar tools with moderate force and effort. Aggregate sizes larger than 2 inches can be very difficult (or impossible) to remove through a pavement core hole using a hand auger. We will make reasonable attempts to investigate measure and sample the aggregate base and sub grade soil material, but will not waste time on such attempts. All core holes will be backfilled with augered aggregates and soil cuttings and capped with asphalt cold patch or similar materials.

The samples of the subgrade soils encountered will be tested by an environmental consultant as needed to determine disposal options for the material(s) which may be removed if reconstruction were to become part of the scope of the road improvements. The services of the environmental consulting firm will also be utilized to complete the necessary certification according to the current Uncontaminated Soil Fill, Clean Construction or Demolition Debris (CCDD) requirements.

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.

Temporary moving lane closures are required for the work as it is being performed. Lane closure areas will be marked using typical orange traffic cones only. The need for flagger(s), advanced traffic information display (signs, arrow boards etc....), detours; public notification of planned work etc.... have not included in this estimate.

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

Scope of Work – Lab Testing

Lab testing required consists of measurement and documentation of the type of pavement and general condition of the each core and description of aggregate base and subgrade soil encountered and where investigated. No other testing has been included in the scope of this investigation.

Scope of Work – Photos of Pavement Cores

A photo of each cored pavement section has been included in this estimate.



Scope of Work – Lab Testing (by Qualified Environmental Consultant & Analytical Testing Lab (as required))

The services of an environmental consulting firm will be utilized to complete the necessary testing and certification according to the current Uncontaminated Soil Fill, Clean Construction or Demolition Debris (CCDD) requirements. Analytical testing will be performed as necessary, however since the required tests are highly dependent on many different factors it is very difficult to provide a firm estimate for analytical testing. Analytical testing may require additional budget(s) which will be negotiated at that time, as needed.

Scope of Work – Summary Report

The results of field work and lab testing together with measurements, descriptions and observations made during the investigation will be compiled and presented in a summary report. A ‘Summary of Pavement Core Measurements’ report including the following general information would be included in the summary report. This typically includes the following items:

1. Core identification
2. Nearest address or description of location
3. Detailed measurements (+/- 1/8 inch) of pavement layer(s) encountered
4. General condition of core
5. Aggregate base description & thickness where investigated at six (6) locations
6. Sub grade soil type encountered at six (6) locations
7. Photo of cored pavement section
8. Remarks

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 very best to stay within the estimated budget. This is not a lump sum estimate. CTL will invoice only for the actual work 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 4 days to complete the field work. The field-testing will likely be completed within 2 weeks after receiving the NTP. The final summary report will be delivered within



approximately 2 weeks following completion of the field investigations. Please advise us if a specific deadline is to be met.

Closure

We appreciate the opportunity to work with you as your Geotechnical and Materials 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

Estimated Budget: \$5,698.00 (See CTL Schedule of Services and Fees)

Accepted This _____ Day of _____, 2016

Signature of Authorized Representative: _____

Printed Name: _____

Company: _____

Title: _____

Attachments: General Conditions (1p.)

**CTL Schedule of Services and Fees – 2017 Road Program,
Pavement Cores & Shallow Soil Investigations, McHenry Township, Illinois**

Task 1 – Pavement Cores and Shallow Soil Investigations

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Rate</u>	<u>Extension</u>
Permit fee(s), each	Cost	Cost	Cost
Field Engineer, per hour (Core location layout)	5.0 hr.	\$98.00	\$490.00
Equipment, supplies & mobilization, lump sum	1.0 lump sum	\$350.00	\$350.00
Core crew, per core (30 pavement cores)	30 cores	\$88.00	\$2,640.00
Core Crew, per hour Hand auguring to 3 ft. depth at six (6) locations for aggregate base thickness and subgrade soil samples	2.0	\$100.00	\$200.00
<u>Task 1 – Cores and Soil Investigations - Budget Amount</u>			\$3,680.00**
(**excludes cost of permits (if necessary))			

Task 2 – Laboratory Testing (CTL)

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Rate</u>	<u>Extension</u>
Project Manager, per hour (Core measurements/descriptions)	4.0	\$98.00	\$392.00
Photo of each core, lump sum	1.0	\$700.00	\$700.00
<u>Task 2 -Laboratory Testing (CTL) - Budget Amount</u>			\$1,092.00

Task 3 – Environmental Consulting Services (by qualified consultant)

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Rate</u>	<u>Extension</u>
pH testing, per sample	3.0	\$50.00	\$150.00
Consulting, lump sum (Determines analytical tests / provides certification & forms as required for CCDD disposal)	1.0	\$450.00	\$450.00
<u>Task 3 –Environmental Consulting Services - Budget Amount</u>			\$600.00

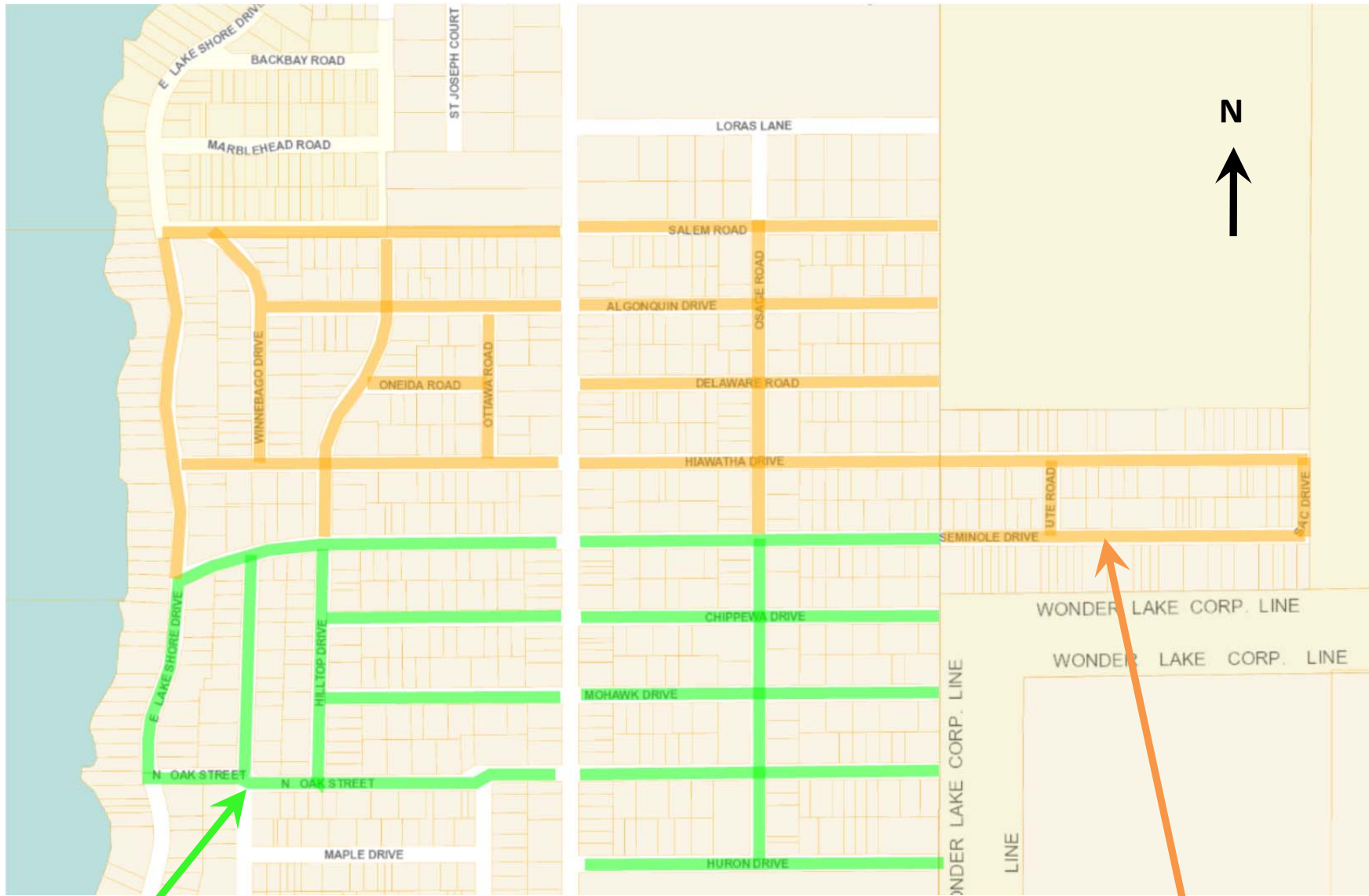
Task 4 – Analytical Testing (by qualified testing firm)

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Rate</u>	<u>Extension</u>
Analytical testing,	0.0		
<u>Task 4 – Analytical Testing - Budget Amount</u>			\$0.00

Task 5 – Report

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Rate</u>	<u>Extension</u>
Project Manager, per hour (Core logs and reporting)	2.0	\$98.00	\$196.00
Principal Engineer, per hour (Report review)	1.0	\$130.00	\$130.00
<u>Task 5 - Report - Budget Amount</u>			\$326.00
<u>Estimated Total</u>			<u>\$5,698.00</u>

EXHIBIT D - LOCATION MAP
MCHENRY TOWNSHIP ROAD DISTRICT
INDIAN RIDGE SUBDIVISION, UNIT 1 & 2



INDIAN RIDGE, UNIT 1

INDIAN RIDGE, UNIT 2