



Hitchcock Design Group

Creating Better Places®

December 9, 2010
Revised March 1, 2011

Jane Turley
Senior Planner
Village of Orland Park
14700 South Ravinia Avenue
Orland Park, Illinois 60462-3134

RE: 153rd Street Bike Trail

Dear Jane:

Thank you for asking Hitchcock Design Group to submit this proposal for your 153rd Street Bike Trail project. We appreciate the opportunity to continue our work with you and the Village of Orland Park.

Project Understanding

Based on our conversations with you, we understand that the begins with a connection to the existing trail at Spring Creek Park and extends south along the west side to Wolf Road to the intersection of 153rd street. The trail will then cross Wolf Road and proceed along the south side of 153rd within the public right-of-way to the 108th Avenue intersection, continue across 108th and connect to the existing sidewalk at the 153rd Street wetlands. The trail is proposed to be ten feet wide and will be approximately 3,300 feet long.

Adding the Wolf Road segment increases the level of effort for the project. Significant grading and / or retaining walls may be necessary to construct the trail. In addition, the Wolf Road right-of-way appears to contain a number of trees and a drainage ditch. Based on air photos and Google Street View it appears that some portions of the ditch may need to be replaced with storm sewer, depending on the path alignment.

It is our understanding that there is already a pedestrian crossing signal at 153rd Street/108th Avenue, but that one will be required at 153rd Street/Wolf Road. The Village indicated that they would try to get the pedestrian crossing included with other Wolf Road improvements, but we have included related scope in case as requested.

Based on available information, we do not believe floodplain related services will be required.

We will solicit pricing for soil borings for your consideration once we determine if and where they will be needed for retaining wall footing or path cross section design.

153rd Street and 108th Avenue are under the jurisdiction of the Cook County Highway Department (CCHD), and Wolf Road is under the jurisdiction of IDOT, so coordination with those agencies will be required.

The budget for these two trail reaches are currently undefined and will be determined during Schematic Design. It is your intention to design, engineer, permit and construct these trails in 2011.

Scope of Services

The following scope items are included:

Topographic Survey:

- The area to be surveyed will be along the path route and will include the area from the edge of existing pavement to approximately 10 feet past the right-of-way.
- Trees will be located, tagged and identified.
- Cross sections will be included every 50'.
- Wetland delineation will be included on the survey.

Wetland Services :

- Prepare a wetland delineation, assessment and report.
- A wetland jurisdictional request if wetlands are present along the route (if required).
- A growing season vegetation and report update is included in case the initial delineation is conducted outside the growing season (May 1 – October 15) and requires an update (if required).
- Permitting services/submittals are **not** included since the need and potential scope is not yet defined. If jurisdictional wetlands are impacted by the proposed path the services required for permit submittals will be the subject of a separate agreement once the scope is defined.

Schematic Design:

- Conduct a kick-off meeting.
- Prepare a project schedule.
- Prepare Schematic Design of path alignment, character, materials and treatment, including cross sections.
- Prepare Schematic Design Opinion of probable Construction Cost.
- Conduct Schematic Design review meeting you.

Preliminary Engineering Plans:

- Prepare Preliminary Engineering plans.
- Prepare a Preliminary Plan Opinion of Probable Construction Cost.
- Conduct Preliminary Engineering review meeting with you.
- Submit to the Village, IDOT, and CCHD. No resubmittals are anticipated – it is assumed that any comments would be addressed on the Construction Documents.

Construction Documents:

- Prepare final Construction Documents based on the Preliminary Engineering Plans, incorporating regulatory comments.
- Prepare retaining wall elevations and footings details (if the walls are not modular).
- Prepare a Final Opinion of Probable Construction Cost.

Storm Water Pollution Prevention Plan (SWPPP) – if required:

- If the project disturbs more than 1 acre of land the project will need to comply with SWPPP requirements/NPDES regulations.
- Since the total path length is projected to be 3,300 feet it is likely that it will disturb more than one acre.

Intersection Design Study for 153rd Street/Wolf Road Intersection – if required:

- IDOT typically requires an IDS for any new or modified intersection under traffic signal control.
- The village referenced that they may try to get this accomplished in-house with other Wolf Road improvements, but we have included this scope in case it is required.

Traffic Signal Modifications at 153rd Street/Wolf Road Intersection for Pedestrian Crossing – if required:

- Traffic signal modifications are required due to the addition of the bike path crossing at the intersection. The Traffic Signal Plans will be prepared in accordance with IDOT District 1 standards and specifications.
- The village referenced that they may try to get this accomplished in-house with other Wolf Road improvements, but we have included this scope in case it is required.

IDOT Permitting Assistance:

- Submit plans to IDOT and respond to up to 2 sets of review comments from them.
- Attend one meeting with IDOT

CCHD Permitting Assistance:

- Submit plans to CCHD and respond to up to 2 sets of review comments from them.

Utility Coordination – if required:

- Utility coordination may be required for utility relocations or modifications due to the pathway location or to provide the pedestrian crossing signals.
- Also, there is a crossing of Spring Creek Lane along the Wolf Road route, and a crossing of what appears to be a pump station driveway.
- It is possible that these crossings will require utility coordination if any light poles, hand-holes, or other infrastructure must be relocated or adjusted to accommodate the path.

Bidding Assistance:

- Prepare a legal notice.
- Respond to RFI's during and prepare addendum's as approved by the Village.
- Attend bid opening.
- Prepare bid tabulation.
- Call references and prepare award recommendation letter.

Construction Phase Services:

- Assuming a five (5) month construction period, participate in site meetings every two (2) week(s) (ten (10) total progress meetings budgeted) with you and the contractor to become familiarized with the progress and quality of the Contractor's work and to determine if the work is proceeding in general conformance with the contract documents.
- Review testing procedures and data provided by independent testing services.
- Participate in one (1) site visit to conduct a walk through and prepare a punch list upon substantial completion of the construction.
- Review required contract close out submittals provided by the Contractor, including as-built record drawings and payment applications.
- Participate in one (1) site visit to conduct a walk through to verify completion of a punch list items and establish final acceptance.
- Prepare recommendations regarding the Contractor's request for acceptance of substantially and finally completed work.

Professional Fees

Based on the Scope of Services, the fees to complete the work, including the "if required" services are as follows:

Topographic Survey:	\$5,000
Wetland Delineation and Assessment Report:	\$3,500
Wetland Jurisdictional Determination (if required)	\$2,000
Wetland Growing Season Report Update (if required):	\$1,800
Schematic Design:	\$6,500
Preliminary Engineering:	\$12,000
Construction Documents:	\$22,000
Stormwater Pollution Prevention Plan (if required):	\$2,000
Intersection Design Study for 153 rd / Wolf (if required):	\$6,500
Traffic Signal Modification at 153 rd / Wolf (if required):	\$6,500
IDOT Permitting Assistance:	\$7,500
CCHD Permitting Assistance:	\$5,500
Utility Coordination (if required):	\$2,000
Bidding Assistance:	\$2,500
Construction Phase Services:	<u>\$12,000</u>
Total if all services are required:	\$98,500

If the "if required" services are not needed: \$77,700

Reimbursable expenses (printing, mileage and courier) will be invoiced in addition to the professional service fees and will be capped at \$3,500. This assumes digital delivery of the construction documents for bidding.

Project Team

Eric Hornig, a Principal in our Recreation Planning Studio, will be our project manager for this work. Other members of our Recreation Planning Studio will participate as needed in order to advance the work in a timely way.

V3 Companies will join our team and be responsible for surveying, wetland services, final engineering and permit coordination.

We expect a schedule of 75-90 days to complete documents suitable for permit submittal. If you find this proposal acceptable, we can use the blanket consultant agreement that we already have in place with the Village of Orland Park.

Thank you again for the opportunity to continue working with you and the Village of Orland Park. If you have any questions or wish to discuss this proposal further, please do not hesitate to call.

Sincerely,
Hitchcock Design Group

A handwritten signature in black ink, appearing to read "Bill Inman", enclosed within a hand-drawn oval shape.

Bill Inman
Senior Vice President

cc: Eric Hornig, Hitchcock Design Group

W-T CIVIL ENGINEERING, LLC

CIVIL AND STRUCTURAL ENGINEERS
2675 PRATUM AVENUE, HOFFMAN ESTATES, IL 60192
(224) 293-6333
FAX (224) 293-6444

February 28, 2011

Village of Orland Park
Planning Division
14700 Ravinia Avenue
Orland Park, IL 60462

ATTN: Ms. Jane Turley, Senior Planner

RE: Proposed Bike Path 153rd Street and Wolf Road
Orland Park, Illinois

Dear Ms. Turley:

Pursuant to your request, we have prepared this proposal for civil and structural engineering design drawings and calculations, as well as landscape architectural drawings and details for the bike path which will begin south of 151st Street on the west side of Wolf Road and will travel south to W 153rd Street, cross Wolf Road and travel east on 153rd Street to 108th Avenue for the Village of Orland Park in Orland Park, Illinois.

UNDERSTANDING OF ASSIGNMENT

It is our understanding that you require professional design services for the construction of a new bike trail/paths on Wolf Road and W 153rd Street based on the Bikeways Extension Exhibit provided by Jane Turley via email on February 18, 2011. The total proposed length of all of the trail/pathways is approximately 3300 feet. This proposed trail/pathway will cross wetlands on 153rd Street. These crossings will impact the existing wetlands and therefore will require wetland mitigation as well as the construction of retaining walls and the potential installation of native plantings. Since the proposed bike trail/pathway will cross Wolf Road, traffic signal modification will be required for the existing traffic signal at the intersection of Wolf Road and 153rd Street. It is our understanding that land acquisition will be required in order to construct the proposed trail/pathway, please note this agreement does not include creation of exhibits or any other services pertaining to land acquisition and or easement creation. This proposal also does not include off-site utility extensions, roadway improvements, materials testing, photometric plans, roadway/pathway lighting, or any other service not specifically included within this agreement.

SCOPE OF ENGINEERING AND LANDSCAPE DESIGN SERVICES

The Scope of Services includes the following Tasks:

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TASK .704 - SITE ENGINEERING / LANDSCAPE ARCHITECTURAL SERVICES

This Task includes the required site engineering and landscape architectural drawings and specifications consisting of the following:

- Site conceptual plans including proposed overall path layout, striping, etc.
- Site development plans indicating site features, signage, striping, etc.
- Site geometric/layout plans including proposed layout
- Site landscape plans including planting details and specifications
- Site grading plans indicating proposed grades for the new improvements
- Site utility plans including proposed storm sewer and utility coordination.
- Proposed profiles and cross sections
- A storm water pollution prevention plan
- Details and specifications for proposed utilities and site features
- Preliminary and final cost estimates

TASK .705 - PROJECT MANUAL / BIDDING AND NEGOTIATION

This Task includes revisions to the Village of Orland Park's standard front end bid documents to comply with the proposed project as well as the creation of the following:

- Special Conditions
- Bid Proposal Form (to include lump sum base bid with Unit Price list)
- Addenda as necessary during bidding
- Verify contractor's references
- Provide recommendation to the Village of Orland Park for construction contract
- Assist the Village of Orland Park in the preparation of contracts and review of contract related documents provided by the successful bidder

This TASK includes one (1) revision after review by the Client.

The preparation of Special Conditions and Supplementary Conditions portions will be based on conditions provided by the client. The preparation of the line items, as well as the Unit Prices portion of the Bid Proposal Form will be based on items determined by W-T Civil Engineering LLC. AIA A-201 General Conditions and AIA A101-2007 Contract will be AIA documents included in unmodified format with revisions by Owner's legal consul.

TASK .707- PERMITTING

This Task includes applying for, and following through, until all permits listed below are secured from the necessary governing agencies. It is anticipated that permits will be required from:

- Village of Orland Park (Site Permit)
- Illinois Department of Transportation (IDOT)
- Cook County Highway Department
- NPDES Phase II (Illinois IEPA)

Application, impact, and permit fees are excluded from this agreement. Also note, the IEPA now requires the owner and or excavator to hire a professional engineer to determine soil contamination levels on site prior to soil removal and or dumping offsite (IEPA LPC-662 and IEPA LPC-663). It is our recommendation that these permits be applied for by the geotechnical engineer hired to conduct the geotechnical investigation separately. We have excluded these permits from our agreement.

TASK .708 - STORM WATER MANAGEMENT ANALYSIS

This Task includes the review of the existing storm water flows on site, analyzing the impact of the new construction on the storm water system, determining the storm water management requirements, and providing design solutions based upon best management practices and storm water requirements dictated by the Orland Park Storm Water Ordinance, IDOT, and the Cook County Highway Department. This Task includes the analysis of the existing storm water management system of the area, and will provide the design solutions for the impact the new improvements will have on this system, including floodplain impact analysis, and compensatory storage calculations. This Task also includes the creation of required maps, calculations, maintenance schedules, and engineer's opinion of costs for permitting with the Village of Orland Park.

TASK .709 - WETLANDS ANALYSIS AND DESIGN

This Task includes delineating the existing wetlands, assessing their quality, providing a report which will include a description of the quality, size, and location of the existing wetland, as well a jurisdictional determination by the US Army Corps of Engineers. This Task will also include creation of native landscaping plans, permitting with the Army Corps of Engineers, and revisions to response comments as well as the wetland consultant's attendance at meetings. (A sub-consultant, Encap, Inc. will perform this Task.)

TASK .716 – TRANSPORTATION ENGINEERING

This Task will include the preparation of traffic signal plans for the intersection of Wolf Road and 153rd Street. The plans will include addition of pedestrian crossing signals for the south leg of the intersection only, and all related work such as cabling, and conduit revisions. It is assumed that no other traffic signal modifications will be required. Additional plan sheets will include the cable plan, sequence of operation phase diagram, emergency vehicle preemption sequence phase diagram, chart of energy requirements, and schedule of quantities. These plans will conform to the requirements of the *Manual on Uniform Traffic Control Devices* and the current IDOT District One Traffic Signal Design Guidelines. A sub-consultant will perform this Task.

TASK .718 - SOILS

This Task will provide a geotechnical report, which identifies the characteristics of the soil and will provide recommendations for proposed pavement design and sub-grade preparation for the proposed pathway/trail. The geotechnical report will contain approximately twenty (20) borings at strategic locations to determine the existing cross section and subgrade condition of the existing right of way areas. A sub-consultant will provide this service.

TASK .720 - CONSTRUCTION OBSERVATION

At the request of the client, W-T Civil Engineering, LLC will provide construction observation visits to the site to observe as an experienced and qualified design professional the progress and quality of the executed work of the contractors and to determine in general if such work is proceeding in accordance with the contract documents. This Task will include a total of eight (8) Construction Observation Site Visits which will include Observation Field Reports. The final field observation visit shall be a punch list visit along with a written field report.

TASK .722 - TOPOGRAPHIC SURVEY

This Task includes:

Topography of the the Right of Way of 153rd Street from 108th Ave to Wolf Rd. and the Right of Way of Wolf Rd. from 153rd Street to Lot 71 in Spring Creek Estates Subdivision (3,600'+/-) including the intersections of said roadways:

Included is:

- *All visible improvements will be located (buildings, concrete pads, wall, fences, etc.)*

- *Sanitary, Storm & Water structures with rim/inverts as well as any other visible utilities (gas, telco, elec.)*
- *Benchmark will be used from NAVD 88 datum.*
- *5 permanent benchmarks will be set at site.*
- *Topography from R.O.W. to R.O.W and 50 feet beyond property lines.*
- *Grade shots on a 50-foot grid & 1-foot contours will be shown.*
- *Landscape trees and trees 6" and larger will be located.*

TASK .726 - PROJECT COORDINATION MEETINGS

At the request of the client, W-T Civil Engineering, LLC will attend meetings with the client and governing municipalities, and provide specific services as requested by the client to resolve site related issues. This Task will include three (3) meetings for a total of twenty-four (24) hours, note representatives from Brusseau Design Group, LLC and W-T Civil Engineering, LLC will be present at these meetings.

TASK .727 - STRUCTURAL ENGINEERING

This Task will provide structural calculations and drawings to bid (including cost estimates), permit and construct the proposed concrete/segmental retaining walls necessary to construct the proposed bike trail/pathway.

TASK .729 - SHOP DRAWING REVIEW

This Task includes reviewing shop drawings for general compliance with the contract documents. Shop drawings shall be reviewed and signed by the contractor and architect prior to review by the engineer.

FEE PROPOSAL

We propose to provide the Scope of Services defined above on a fixed fee basis as indicated below.

SITE ENGINEERING	\$	14,500.00
PROJECT MANUAL	\$	1,800.00
PERMITTING	\$	3,000.00
STORM WATER MANAGEMENT ANALYSIS	\$	1,500.00
WETLAND ANALYSIS AND DESIGN	\$	8,500.00
SOILS	\$	7,500.00
TOPOGRAPHIC SURVEY	\$	9,000.00
CONSTRUCTION OBSERVATION	\$	4,000.00

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62,450

TRANSPORTATION ENGINEERING	\$	3,000.00
PROJECT COORDINATION MEETINGS	\$	3,400.00
STRUCTURAL ENGINEERING	\$	5,500.00
SHOP DRAWINGS	\$	750.00

This estimate is based upon our experience with similar projects. We will not exceed this upper limit without your prior approval. Reimbursable expenses, i.e.: requested reproductions, blueprints, and delivery charges etc. will be invoiced at cost. This agreement will be established in accordance with the attached general conditions and we will bill you upon completion of each Task, due within **thirty (30) days of invoice** date in accordance with the attached General Conditions. All work shall be suspended if payment has not been received within ninety (90) days of invoice date.

If this proposal meets with your approval, please sign both copies and return one (1) to our office.

If you have any questions or comments, do not hesitate contacting me.

**Respectfully Submitted,
W-T CIVIL ENGINEERING, LLC.**



**Todd O. Abrams PE, CFM
Project Manager**

Accepted this day of

VILLAGE OF ORLAND PARK

W-T CIVIL ENGINEERING, LLC

CIVIL AND STRUCTURAL ENGINEERS
2675 PRATUM AVENUE HOFFMAN ESTATES, ILLINOIS 60192
(224) 293-6333
FAX (224) 293-6444

CIVIL AND STRUCTURAL ENGINEERING 2011 RATE SCHEDULE

		<u>Expert Testimony</u>
Principal	\$195.00 / hour	\$300.00 / hour
President	\$175.00 / hour	\$275.00 / hour
Eminent Domain Specialist	\$160.00 / hour	\$250.00 / hour
Civil Project Manager	\$130.00 / hour	\$200.00 / hour
Civil Project Engineer	\$105.00 / hour	
Civil Project Designer	\$ 90.00 / hour	
Structural Project Manager	\$130.00 / hour	\$200.00 / hour
Structural Project Engineer	\$105.00 / hour	
Structural Project Designer	\$ 90.00 / hour	
Permit Expeditor	\$ 90.00 / hour	
Cad Technician	\$ 75.00 / hour	
Administrative	\$ 60.00 / hour	

GENERAL TERMS AND CONDITIONS

BILLING AND PAYMENT – The Client agrees to compensate the Design Professional for services on an hourly basis per the attached rate sheet. Reimbursable expenses shall be invoiced at cost. Services and expenses will be invoiced monthly. Invoice amounts are due within 30 days. Interest of 1-1/2 percent per month compounded daily applies to all outstanding invoices. In the event any amount becomes past due, the design professional may give 7 days notice of intent to terminate the contract.

CONSEQUENTIAL DAMAGES – The Client and Design Professional both agree to waive consequential damages for claims, disputes, or other matters arising out of or relating to this Agreement against each other.

DELAYS – The Design Professional will not be liable for delays due to force majeure or for any delays caused by others or by circumstances outside the control of Surveyor.

DISPUTE RESOLUTION – Any dispute under this contract shall be subject to mediation as a condition precedent to litigation. Mediation shall be initiated by a written demand served by any party hereto to the other party. Mediation shall take place at such forum and with a mediator acceptable to both parties hereto. Costs of mediation shall be shared equally by the parties.

ENVIRONMENTAL – The Design Professional assumes no responsibility for the detection or removal of any hazardous substances found at the job site.

JOBSITE SAFETY – The Design Professional is not responsible for job site safety or for construction means and methods, techniques or sequences. Job site safety, construction means and methods, techniques or sequences, are the responsibility of the Contractor.

LIMITATION OF LIABILITY – The Client agrees, to the fullest extent permitted by law, to limit the liability of the Design Professional so that the total aggregate liability of the Design Professional shall not exceed the Design Professional's fee paid for services rendered on the Project pursuant to this agreement. It is acknowledged that this limitation of liability applies to any and all cause of action, be it sounding in contract, tort, statutory violation or otherwise. The Client agrees to bring any claims against the Design Professional Company, not any individual directors, officers, or employees of the Design Professional.

OWNER PROVIDED INFORMATION – The Design Professional shall have the right to rely on the accuracy of any information provided by the Client. The Design Professional will not review this information for accuracy.

OWNERSHIP OF INSTRUMENTS OF SERVICE – All documents, including drawings, plats, and other data prepared or furnished by Design Professional, pursuant to this agreement are Instruments of Service with respect to the Project. The Design Professional retains all intellectual property rights including common law, statutory, and other reserved rights in the Instruments of Service, including copyrights. The Design Professional grants Client a license to use Instruments of Service for the sole purpose of construction of the Project provided Client shall comply with all obligations required by this Agreement including prompt payment of all sums when due. Any termination of this agreement prior to completion of the services shall terminate this license. The Client agrees to limit use of the Instruments of Service to this Site-specific project only.

PERMITS AND APPROVALS – It is the responsibility of the Owner to obtain all necessary permits and approvals. The Design Professional will assist the Owner as mutually agreed in writing.

SITE OBSERVATION – The Design Professional shall make visits to the Site as provided in the Agreement to observe the Contractor's progress and quality of the Work to determine, in general, if the Work when completed will be generally in conformance with the Contract Documents. Such visits and observations by The Design Professional are not intended to be exhaustive or to extend to every aspect of the Contractor's Work in progress or to involve detailed inspections of Contractor's Work in progress beyond the responsibilities specifically assigned to The Design Professional in this Agreement and the Contract Documents, but rather are to be limited to spot observations and similar visual methods of general observation of the Work based on information obtained during such visits and observations, and Design Professional shall inform the Owner of any non-conforming Work observed by Design Professional as soon as reasonably possible.

RIGHT OF ACCESS – The Design Professional shall have access to the job site whenever work is in preparation or in progress.

STANDARD OF CARE - The standard of care for all professional services performed or furnished by Design Professional under this Agreement will be the skill and care used by members of the Design Professional's profession practicing under similar circumstances at the same time and in the same locality. Design Professional makes no warranties, express or implied, under this Agreement or otherwise in connection with its services.

STOP WORK AUTHORITY – The Design Professional has no stop work authority.

TERMINATION – The contract may be terminated by either party for convenience with 14 days written notice, or for cause with 7 days written notice by either party. The project may be suspended by the client with 30 days written notice. In the event of suspension or cancellation for convenience, the Client shall pay all fees and expenses incurred prior to the date of notice.



CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 West Higgins Road Suite 600 Rosemont, Illinois 60018 TEL (847) 823-0500 FAX(847) 823-0520

February 15, 2011

Village of Orland Park
14700 Ravinia Avenue
Orland Park, IL 60462

Attention: Ms. Jane Turley, Senior Planner

Subject: 153rd Street Bike Path Proposal

Dear Ms. Turley:

Please find enclosed our Phase II Engineering Proposal and a Conceptual Cost Estimate for the subject project.

Based on our correspondence with the Village we understand the following:

- ❖ No federal money is anticipated to be used for the design or construction, it will be all local.
- ❖ The 10' wide bike path will start with a connection to the existing bike path in Spring Creek Park (located at the southwest corner of Wolf road and 151st Street), and extend south along the west side of Wolf road to the intersection of 153rd Street. The bike path will then cross Wolf Road and run in the right of way along the southern side of 153rd Street. The path will continue across 108th Avenue and will end with a connection to the existing sidewalk around the 153rd Street Wetlands (located at the southeast corner of 108th Avenue and 153rd Street). The total length of the path will be approximately 3,300'.
- ❖ Pedestrian heads and a crosswalk will be constructed at Wolf Road. The crossing at 108th already has a pedestrian head, but will need crosswalk striping.

Based on our experience with the design of the 153rd Street Widening plans, there may be a significant amount of retaining wall to construct the path within the existing right-of-way. Please note that Plats, Legals and Right-of-Way acquisition are not included in this proposal.

Included in this proposal is our Scope of Services, Estimate of Fee and a conceptual construction cost estimate.

Sincerely,

Jason Souden, PE
Vice President

SCOPE OF WORK – PHASE II

TASK 1 – PHASE II DESIGN KICK-OFF MEETING: CBBEL will meet with the Village to discuss the project scope and schedule and review plan format, design issues, etc.

TASK 2 – DATA COLLECTION AND REVIEW: CBBEL will collect and review data to be utilized for the preparation of the Phase II design plans. This data will include the following:

- Survey Data
 - Plats of highways for 153rd Street/Wolf Road
 - Adjacent subdivision plats, Cook County tax maps, and any other available information to identify existing right-of-way and existing property lines.
 - Information on state plane monuments to be utilized for horizontal control for the project.
 - Information on benchmarks to be utilized for vertical control for the project.
- Existing FEMA maps and flood insurance studies.
- Wetland information including ADID wetland maps, National Wetland Inventory maps, Cook County soils maps, and any other information.
- Other state, county and village information including utility atlases, land use plans, ordinances, etc.

TASK 3 – SURVEY: CBBEL will perform a full topographic survey of the project area.

CBBEL will perform the following survey tasks:

Horizontal Control: Utilizing state plane coordinates, CBBEL will set recoverable primary control utilizing our GPS equipment.

Vertical Control: CBBEL will perform a level circuit throughout the entire length of the project establishing benchmarks and assigning elevations to the horizontal control points. The elevations will be based on NGVD of 1929.

Existing Right-of-Way: CBBEL will establish the appropriate existing right-of-way of the roadways within the project limits based on monumentation found in the field, plats of highways, subdivision plats and any other available information.

Topographic Survey: CBBEL will field locate all pavements, driveways, curb and gutters, pavement markings, signs, manholes, utility vaults, drainage structures, driveway culverts, cross road culverts, etc.

Cross Sections: CBBEL will survey cross sections along the project limits at 50' intervals, at driveways, and at all other grade controlling features.

Wetland Topographic Survey: All wetlands delineated along the project will be surveyed and added to the survey database. This information will be utilized to determine exact impacts to existing wetlands due to the proposed roadway project.

SCOPE OF WORK – PHASE II

Utility Survey: All existing storm and sanitary sewers will be surveyed to determine rim and invert elevations and pipe sizes. Above ground facilities of any additional underground utilities including water main, gas, electric, cable, etc. will also be located.

Tree Survey: Upon establishing a preferred alternative and alignment, CBBEL will locate all trees over 6 inches in diameter within the project area. This will be important to quantify tree impacts associated with the proposed bike trail. The located trees will be identified by species and the size and condition determined.

Base Mapping: CBBEL will compile all of the above information into one base map representative of existing conditions of the project corridor for use in planning the proposed improvements.

TASK 4 – GEOTECHNICAL INVESTIGATION: Due to the possibility of poor soils in the areas of the project corridor, CBBEL recommends conducting a Geotechnical Investigation of the proposed project route. CBBEL will subcontract this work to Testing Services Corporation (TSC).

TASK 5 – WETLAND ASSESSMENT: CBBEL will perform a Wetland Assessment of the project area.

The following specific services are proposed for the wetland assessment to comply with Section 404 of the Clean Water Act, IDNR requirements, and LCSMC requirements.

- **Field Reconnaissance:** An investigation of the project site will be completed to determine the limits of wetlands if present. The wetlands delineation will be completed based on the methodology established by the U.S. Army Corps of Engineers. Also during the site visit, wildlife and plant community qualities will be assessed. The limits of the wetland community will be field staked so that they can be located in relation to the project coordinate system as outlined in Task 2.
- **Report:** The results of the field reconnaissance will be summarized in a Report. The wetlands' generalized quality ratings, according to Swink and Wilhelm (1994), will be included along with exhibits depicting the approximate wetland and project boundaries, National Wetland Inventory, Soil Survey, floodplain, USGS topography, site photographs and their locations, and the U.S. Army Corps of Engineers (COE) Routine On-Site Data Forms. We assume that wetland impacts will be avoided.

TASK 6 – PEDESTRIAN SIGNAL DESIGN: CBBEL will design pedestrian signals/crossing at Wolf Road and 153rd Street.

Data Collection: This task will include collecting existing roadway and traffic signal plans from IDOT/CCHD. This information will be augmented by a field reconnaissance of the intersection to verify existing plan data and equipment inventories.

Base Sheet Preparation: We will prepare base sheets at a scale of 1"=20' for the traffic signal modifications using the data collected in Task 1.

Traffic Signal Modification Plans: We will prepare the traffic signal modification plans using the base sheet information. The traffic signal modification plans will be developed based on IDOT/CCHD standards current at the time said plans are prepared. The traffic signal modification plans will include the following:

SCOPE OF WORK – PHASE II

- a. Preliminary, Pre-final and Final Signal Improvement Plan
- b. Sidewalk Installation Plan
- c. ADA Ramp Details
- d. Cable Plan
- e. Phase Designation Diagram
- f. Emergency Vehicle Preemption Phase Diagram and Notes
- g. Summary of Quantities
- h. Technical specifications employing CCHD special provisions to the extent that they apply will be assembled

Estimate of Cost: An engineer's opinion of probable construction cost will be prepared for the traffic signal modifications based on the final plans.

Permit Acquisition: CBBEL will prepare submittal materials required by IDOT/CCHD including plans, specifications, estimate of cost, letters of transmittal, disposition of comments and permit application. This work will include proactive follow up with CCHD to verify receipt of submittal packages, review status and anticipated permit issuance. The plans and specifications will be revised based on comments received from the Village and IDOT/CCHD and a detailed disposition of comments will be prepared documenting how comments have been addressed. Mark-ups will be returned with each re-submittal.

TASK 7 - PRELIMINARY PLANS, SPECIFICATIONS AND COST ESTIMATE: CBBEL will prepare preliminary contract documents consisting of plans, specifications, estimate of time, status of utilities to be adjusted and an estimate of construction cost. The plans will be prepared in accordance with all Village, CCHD and IDOT design criteria.

The preliminary plans will include the following sheets:

<u>No.</u>	<u>Sheet Title</u>
1	Cover Sheet
1	General Notes / Summary of Quantities
1	Earthwork Schedule
1	Alignment, Ties and Benchmarks sheet
1	Typical cross sections
3	Existing Conditions/Removal Sheets (2 panels)
6	Path Plan and Profile sheets
2	SESC Details and Standard Notes
2	Construction Details
4	Pedestrian Signal Plans
7	Cross Sections
4	Retaining Wall Plans and Details
<hr/>	
33	TOTAL SHEET COUNT

CBBEL will use IDOT standard pay items or Village standard special provisions where applicable. Otherwise, project-specific special provisions will be written as needed. Plans, special provisions, and the estimate of cost will be submitted to the Village for review.

SCOPE OF WORK – PHASE II

CBBEL will also make any required submittals to IEPA to meet NPDES requirements.

A set of pre-final plans will be submitted to utility companies for verification of facilities.

TASK 8 - UTILITY COORDINATION: Upon notice to proceed, CBBEL will send a location map to all known utility companies requesting their atlases or plans of their facilities within the project limits. CBBEL will add the received information to the existing conditions plan and send it back to the utility companies for verification. CBBEL will then send preliminary plans with potential conflicts identified, and will set up meetings to discuss necessary utility relocations or plan adjustments.

TASK 9 - FINAL PLANS, SPECIFICATIONS AND ESTIMATES: Upon meeting with the Village staff to review their comments on the preliminary submittal, CBBEL will revise and finalize the contract documents and cost estimate. During this task the exact letting date will be determined and an estimated construction schedule will be provided.

TASK 10 - BID DOCUMENTS: CBBEL will make the final revisions to the final submittal based on the Village's final review comments. The requested number of copies of plans and specifications will be submitted to the Village. A final estimate of cost and estimate of required working days will also be submitted. In addition to printed copies, we will provide the plans, specifications and estimate to the Village in electronic format. CBBEL will make application and obtain all required permits.

DIRECT COSTS

TASK 7 - PRELIMINARY PLANS, SPECIFICATIONS AND COST ESTIMATE

B/W Plots

5 sets (plans) x 33 sheets x 6 s.f./sheet x \$0.145/s.f.	=	\$ 143.55
5 copies (specifications) x 80 sheets x \$0.08/sheet	=	\$ 32.00
		\$ 175.55

TASK 9 – FINAL PLANS

B/W Plots

5 sets (plans) x 33 sheets x 6 s.f./sheet x \$0.145/s.f.	=	\$ 143.55
5 copies (specifications) x 80 sheets x \$0.08/sheet	=	\$ 32.00
		\$ 175.55

TASK 10 – BID DOCUMENTS

B/W Plots

15 sets (plans) x 33 sheets x 6 s.f./sheet x \$0.145/s.f.	=	\$ 430.65
15 copies (specifications) x 80 sheets x \$0.08/sheet	=	\$ 96.00
		\$ 526.65

TOTAL = \$ 877.75

PROJECT NAME:	153rd and Wolf Road, 10' @ 3300 LF
LOCATION:	ORLAND PARK, ILLINOIS
DATE:	11/1/2010

ITEM NO.	ITEMS	UNIT	QUANTITY	BID UNIT	TOTAL BID
1	EARTH EXCAVATION	CY	1,375	\$40.00	\$55,000.00
2	GROUND STABILIZATION FABRIC	SY	4,400	\$3.00	\$13,200.00
3	UNSUITABLE EXCAVATION	CY	250	\$65.00	\$16,250.00
4	PGE SUBGRADE	CY	250	\$35.00	\$8,750.00
5	CURB REM & REPLACE	LF	200	\$50.00	\$10,000.00
6	SAWCUTTING (MISC)	LF	200	\$3.00	\$600.00
7	AGGREGATE SUBGRADE 8"	SY	4,400	\$15.00	\$66,000.00
8	HMA BINDER N50 2"	TON	440	\$85.00	\$37,400.00
9	HMA SURFACE N50 1 1/2"	TON	330	\$95.00	\$31,350.00
10	PRIME	GAL	440	\$5.00	\$2,200.00
11	THERMO PVMT MARKING LINE 4"	FT	3,300	\$1.50	\$4,950.00
12	THERMO PVMT MARKING BIKE SYMBOL	EA	10	\$100.00	\$1,000.00
13	TRAFFIC CONTROL & PROTECTION	LS	1	\$8,000.00	\$8,000.00
14	PEDESTRIAN SIGNALS	LS	1	\$50,000.00	\$50,000.00
15	TOPSOIL F&P 4"	SY	4,500	\$5.00	\$22,500.00
16	SODDING, SALT TOLERANT	SY	4,500	\$5.00	\$22,500.00
17	SIDEWALK REM & REPLACE	SF	400	\$10.00	\$4,000.00
18	RETAINING WALLS	SF	5,000	\$40.00	\$200,000.00
				SUB TOTAL	\$553,700.00
19	15% MISCELLANEOUS				\$83,055.00
				TOTAL	\$636,755.00

