



CHRISTOPHER B. BURKE ENGINEERING, LTD.

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April 6, 2018

Village of Orland Park
15655 Ravinia Avenue
Orland Park, IL 60462

Attention: John Ingram, Public Works Director

Subject: Proposal for Design Engineering Services
Mason Lane Stormwater Improvements

Dear Mr. Ingram:

Christopher B. Burke Engineering, Ltd. (CBBEL) is pleased to submit our proposal to perform professional design and construction engineering services for the Village of Orland Park. Included in this proposal is our Understanding of the Assignment, Scope of Services, and Estimate of Fee.

Mr. James Amelio, PE who is very familiar with the project site will be the point of contact and project manager.

We trust that it will demonstrate our understanding of the project and our expertise to perform the upcoming assignment. The CBBEL project team looks forward to working with the Village and is committed to completing the work to your satisfaction and within the required time schedule.

UNDERSTANDING OF THE ASSIGNMENT

As a result of substantial ponding, sedimentation and conveyance issues, the Village is proposing to make extensive stormwater improvements in and around Mason Lane study area. The stormwater improvements include replacing the existing 15" storm sewer between Yorktown Drive and 143rd Street, defining the channel grading from the 143rd St culvert outfall to 144th Place and beyond once the culvert and roadway at 144th Place have been removed. The proposed improvements will reduce upstream ponding depths and durations at Yorktown Drive and provide a dedicated outlet for downstream flows from 143rd Street to Schussler Pond.

We assume that the area of disturbance for the project will be less than 1 Acre and therefore an ILR10 NPDES permit will not be required. If the area of disturbance exceeds 1 Acre, additional tasks will be required to obtain the ILR10 permit.

It is our understanding that this project will be constructed with Village funds, and that the Village has jurisdiction over all roadways within the project.

SCOPE OF SERVICES

Task 1 – Supplemental Topographic Survey: CBBEL will obtain topographic survey of the project area as needed to design the proposed improvements. Survey limits include the intersection of Trenton Avenue and Yorktown Drive, the sideyard between Yorktown Drive and 143rd Street, and supplemental pickup along the channel and at 144th Place. The survey will be used as a base map for design purposes. Included are the following survey tasks:

1. Horizontal Control: Utilizing state plane coordinates (NAD '83, Illinois East Zone 1201); CBBEL will establish recoverable primary control.
2. Vertical Control: CBBEL will establish elevations on new horizontal control points based on NAVD '88 Vertical Datum.
3. Field topographic survey to locate and measure pavement, curbs, trees, fences, walks, curb cuts, utilities, approximate right-of-way and other pertinent site features.
4. Field Survey to determine detailed utility structure rim and invert elevations, pipe size and material.
5. Field level run to establish vertical control.
6. Office calculations and plotting of field data.
7. Drafting of an existing conditions plan in a Microstation drawing file.

CBBEL will create design base sheets from the survey at a scale of 1" = 20'. This task will also include identification of approximate roadway right-of-way.

Task 2 – Construction Easement Exhibits: CBBEL will prepare a Construction Easement Exhibit for a proposed construction easement the sideyard between Yorktown Drive and 143rd Street. Easement purchase cost is excluded from this proposal.

CBBEL does not anticipate obtaining any easements on the south side of 143rd Street.

Task 3 – Hydrologic and Hydraulic Modeling: CBBEL will utilize existing storm sewer and topographic data from the Village and Cook County to prepare a preliminary hydrologic and hydraulic model of the study area. The preliminary model will simulate the runoff of stormwater through the study area and allow CBBEL to replicate the flooding being experienced. Once the model has been completed, CBBEL will evaluate various alternatives to reduce the risk of future flooding for the study area. Alternatives may include additional storm sewers, modification or creation of overland flow routes, detention storage, a combination of all three, or other alternatives as needed to provide the additional protection desired. Once the various alternatives have been prepared and evaluated, CBBEL will summarize each alternative and

the resulting flood reduction associated with it in a technical memorandum to the Village. CBBEL will meet with Village staff to review the proposed alternatives and assist in selecting a preferred improvement to reduce the risk of future flooding.

Task 4 – Wetland Delineation:

Task 4.1 – Field Delineation Reconnaissance: An investigation of the subject property will be completed to determine the limits of wetlands present. The wetland delineation will be completed based on the methodology established by the U.S. Army Corps of Engineers (USACE). Also during the site visit, wildlife and plant community qualities will be assessed. The limits of the wetland community will be field staked and located with a hand-held GPS unit so that the boundaries can be overlaid onto aerial photography. Please note that wetland delineations completed outside of the growing season (generally November 1 through April 1) may require a supplemental site visit during the growing season.

Task 4.2 – Wetland Assessment Report: The results of the field reconnaissance will be summarized in a letter report. The wetlands' generalized quality ratings, according to the Swink and Wilhelm Methodology (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 USACE Routine On-Site Data Forms.

Task 4.3 – U.S. Army Corps of Engineers' Jurisdictional Determination: We will submit a request for jurisdictional determination to the USACE based on the results of our field investigation. This task includes completing the request for jurisdictional determination form as required by the USACE and meeting staff onsite to complete the jurisdictional determination, if necessary.

Task 5 – Wetland Permitting:

Task 5.1 – U.S. Army Corps of Engineers Permit Application Preparation and Submittal: If federally jurisdictional wetlands are proposed to be impacted by the proposed project, we will compile the required exhibits, specifications, data and project information into a Regional Permit application package to the USACE. We will coordinate development of the documents with you and other project team members. If it is determined that the project will require an Individual Permit, we will provide a separate proposal for additional tasks associated with that type of permit.

Task 5.2 – Permitting Agency Coordination and Project Meetings: During the permit review process, follow-up meetings with the regulatory agencies, project team and client can be expected to finalize required information, submittals and documentation. We estimate two meetings will be required to obtain the required permits. If more than 2 meetings are required, they will be billed as out of scope services on a Time and Materials basis.

Task 6 – Plans and Specification: CBBEL will prepare contract documents incorporating Village comments consisting of plans, specifications, status of utilities to be adjusted and an estimate of construction cost. The plans will be prepared in accordance with Village and IDOT design criteria.

Task 7 – Pre-Construction Services

1. Review the contractor's schedule for compliance with any milestones and/or restrictions found in the contract documents. CBBEL will review the schedule for constructability to ensure that the work is being completed in a logical sequence.
2. Prepare all project files prior to the start of construction. This shall include reviewing all applicable construction inspectors' checklists found in IDOT's Construction Manual to anticipate any issues that may arise during construction.
3. Review the plans and specifications and identify any potential issues or conflicts that can be resolved prior to construction. This will assist in avoiding unnecessary delays and change orders.
4. Coordination and attendance at a Pre-Construction meeting.

Task 8 – Construction Observation

LAYOUT VERIFICATION AND/OR CONSTRUCTION LAYOUT

1. Verify initial geometric controls.
2. If the contractor is responsible for construction staking, perform periodic measurements to assure the contractor's construction staking and construction layout is accurate per plans.
3. Provide construction layout, if required.

CONSTRUCTION OBSERVATION

1. Observe the progress and quality of the executed work. Determine if the work is proceeding in accordance with the Contract Documents. CBBEL shall keep the Village informed of the progress of the work, guard the Village against defects and deficiencies in the work, and advise the Village of all observed deficiencies of the work and disapprove or reject all work failing to conform to the Contract Documents.
2. Provide extensive on-site observations of the work in progress and field checks of materials and equipment through a Resident Engineer and Inspector (if necessary), who shall:
 - Serve as the Village's liaison with the contractor working principally through the contractor's field superintendent.
 - Be present whenever the contractor is performing work on-site, associated with the project.
 - Cooperate with the contractor in dealing with the various local agencies and utility companies having jurisdiction over the Project in order to complete service connections to public utilities and facilities.
 - Record names, addresses and telephone numbers of all contractors, subcontractors, and major material suppliers.
 - Attend all construction conferences. Arrange a schedule of weekly progress meetings and other job conferences as required. Maintain and circulate copies of records of the meetings.
 - Review contractor's progress on a weekly basis and update the progress schedule. Compare actual progress to the contractor's approved schedule. If the project falls 14 calendar days behind schedule, work with the contractor to determine the appropriate course of action to get back on schedule. The contractor is required to submit a revised schedule for approval prior to further payments being made.
 - Maintain orderly files of correspondence, reports of job meetings, shop drawings and other submissions, RFI responses, original contract documents including all addenda, change orders and additional drawings issued subsequent to the award of the contract.

- Prepare any RFC's needed as construction proceeds. Once the contractor submits a proposal, assist the Village in their review and provide a recommendation.
- 3. Determine if the project has been completed in accordance with the contract documents and if the contractor has fulfilled all obligations.
- 4. Except upon written instruction of the Village, the Resident Engineer or Inspector shall not authorize any deviation from the Contract Documents.
- 5. Alert the Contractor's field superintendent when materials or equipment are being installed before approval of shop drawings or samples, where such are required, and advise the Village when it is necessary to disapprove work as failing to conform to the Contract Documents.
- 6. Discuss the truck routes with the Contractor and monitor that the identified routes are being used.
- 7. All CBBEL personnel and their sub-consultants will comply with the Village's current safety guidelines.

CONSTRUCTION DOCUMENTATION

1. Keep an inspector's daily report book and project diary in the Village's format, recording hours on the job site, weather conditions, general and specific observations, daily activities, quantities placed, inspections, decisions, and list of visiting officials, as outlined in IDOT's Construction Manual. Additionally, prepare photo documentation of construction to be submitted in both hard and digital formatting.
2. Prepare payment requisitions and change orders. Review applications for payment with the Contractor for compliance with established submission procedure and forward them with recommendations to the Village. Maintain a Change Management Plan logging all decisions and approved changes of scope and budget.
3. Schedule any material testing through the Village's Consultant at the frequency required by IDOT's QC/QA provisions. Also obtain and document all material inspection received from the Contractor as outlined in the Project Procedures Guide of IDOT's Construction Manual.
4. Prepare a monthly written update to the Village summarizing the Project status, costs and schedule.
5. Review and coordinate response to any RFI from the Contractor in a timely manner and maintain a separate file for each request.

Task 9 – Project Closeout

CBBEL will generate a punch list based on field walkthrough with the Village and Contractor. Task also includes verification of punch list completion and closeout paperwork.

ESTIMATE OF FEE

Based on the above Scope of Services, our Estimate of Fee is detailed further in the attached CBBEL Work Effort.

If upon completion of Preliminary Engineering plans, or at any point during the work under this contract, the Village of Orland Park wishes to convert this contract to a Design/Build Contract, CBBEL offers the services of Burke, LLC, a legal entity closely affiliated with CBBEL. CBBEL will terminate this contract and forfeit any remaining fee on the basis that Burke, LLC, CBBEL and the Village of Orland Park will execute a PRICE AND SCHEDULE GUARANTEE based on the preliminary plans and cost estimate. Burke, LLC will act as the General Contractor / Construction Manager in accordance with the terms and conditions of a mutually acceptable

DESIGN/BUILD CONTRACT. Burke, LLC will work with the Village of Orland Park to develop a mutually acceptable form of contract for construction services.

We propose to bill you in accordance with the previously accepted Master Contract between the Village of Orland Park and CBBEL. If this proposal is acceptable to you, please sign both copies and return one to us for our files. Please feel free to contact us anytime.

Sincerely,



Christopher B. Burke, PhD, PE, D.WRE, Dist.M.ASCE
President

THIS PROPOSAL ACCEPTED FOR THE VILLAGE OF ORLAND PARK.

BY: _____

TITLE: _____

DATE: _____

CBBEL WORK EFFORT
Village of Orland Park
Mason Lane Stormwater Improvements

Personnel & Hours										
Rate	Engineer IV \$ 138.00	Engineer III \$ 125.00	Engineer I/II \$ 102.00	Survey \$	Environmental Resources Specialist III \$ 114.00	Environmental Resources Specialist I/II \$ 94.00	Environmental Resource Technician \$ 90.00	Total Hours	% of Hours	Total Cost
Task 1 Supplemental Topographic Survey	2			8 \$ 4,500				10	1.4%	\$ 5,592.00
Task 2 Construction Easement Exhibit				2 \$ 1,200				2	0.3%	\$ 1,404.00
Task 3 Hydrologic and Hydraulic Modeling	20			40				60	8.1%	\$ 6,840.00
Task 4.1 Field Delineation Reconnaissance					5	4	2	11	1.5%	\$ 1,126.00
Task 4.2 Wetland Assessment Report					2	12	8	22	3.0%	\$ 2,076.00
Task 4.3 USACE Jurisdictional Determination					1	5		6	0.8%	\$ 584.00
Task 5.1 USACE Permit Application Preparation and Submittal										
Task 5.2 Permitting Agency Coordination and Project Meetings					4	17		21	2.8%	\$ 2,054.00
Task 6 Plans and Specifications	60	20	120		3	13		16	2.2%	\$ 1,594.00
Task 7 Pre - Construction Services	2	8						200	27.1%	\$ 23,020.00
Task 8 Construction Observation *	10	360						10	1.4%	\$ 1,276.00
Task 9 Project Closeout		10						370	50.1%	\$ 46,380.00
Subtotal	94	398	170		15	51	10	738	1.4%	\$ 1,250.00
% of Hours	12.7%	53.9%	23.0%							
Total Cost	\$ 12,972.00	\$ 49,750.00	\$ 17,340.00	\$ 5,700.00	\$ 1,710.00	\$ 4,794.00	\$ 900.00	\$ 93,166.00		\$ 93,166.00
Direct Costs										\$ 2,600.00
Material Testing										\$ -
Total Cost										\$ 95,766.00

* Cost based upon a 8 Week Construction Schedule

** Vehicle usage at \$65/day.