

## CHRISTOPHER B. BURKE ENGINEERING, LTD.

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May 6, 2013

Village of Orland Park Public Works Department 15655 Ravinia Avenue Orland Park, IL 60462

Attention:

Mr. John Ingram - Infrastructure Maintenance Director

Subject:

Proposal for Professional Engineering Services for

Maycliff Subdivision Storm Sewer and Water Main Improvements

Dear Mr. Ingram:

Christopher B. Burke Engineering, Ltd. (CBBEL) is pleased to submit this proposal to provide professional engineering services for the design of storm sewer and water main improvements for the Maycliff Subdivision in the Village of Orland Park (Village). This proposal includes our Understanding of the Assignment, Scope of Services and Estimated Fee.

## UNDERSTANDING OF ASSIGNMENT

The Maycliff Subdivision Storm Sewer and Water Main Improvement project is a continuation of the work performed as part of the Orland Park Flood Risk Reduction Assessment for the Maycliff Subdivision study area. CBBEL previously completed a detailed hydrologic and hydraulic model of the Maycliff Subdivision to develop the most effective method to alleviate the flooding within the subdivision. CBBEL will proceed with the design of a collection and conveyance system according to the previously completed assessment. In addition, CBBEL will design and permit the installation of new water main to replace the existing deteriorated cast iron water main located throughout Maycliff Subdivision.

## **SCOPE OF SERVICES**

Based on our experience with similar projects, our anticipated scope of services is detailed below:

<u>Task 1 – Topographic Survey</u>: 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, 1997 Adjustment); CBBEL will establish recoverable primary control.
- 2. Vertical Control: Establish site benchmarks for construction purposes, tied to the NAVD 88 Vertical Datum. A level circuit will be run throughout the project, establishing benchmarks and assigning a vertical datum on the horizontal control points.
- 3. Research at the Cook County Recorder's Office.
- 4. Field recon and survey to locate existing monumentation and Right-of-way evidence.
- 5. Analyze Record and Field Data necessary to compute approximate Right-of-Way throughout project limits.
- 6. All trees of 6 inch caliper or greater to be surveyed. Provide tree size, location and elevation on survey.
- 7. All above and below ground utilities including, but not limited to: water, sanitary sewer, storm sewer, telephone, electric, cable and gas, etc. Identify size, type, rim, and invert elevations.
- 8. Existing hardscape improvements located in the project limits including paving, curbs, light fixtures, walks, street signs, parking, fencing and gates, approximate R-O-W, and adjacent building façade & overhangs (if any).
- 9. Office calculations and plotting of field and record data.
- 10. Office contouring of field data and one foot contour intervals.
- 11. Drafting of existing conditions Plan at a scale of 1"=20'.

<u>Task 2 — Utility Coordination:</u> CBBEL will identify utilities that may have facilities within the project limits and send a Preliminary Utility Request to all known utility companies to obtain pertinent information. Based on the information received from the utility companies, CBBEL will include locations of all facilities on the plans, identify potential conflicts with the proposed project and design the proposed improvements to minimize utility conflicts.

Task 3 – Hydrologic and Hydraulic Modeling: CBBEL will use the information collected during Tasks 1 and 2 to update the hydrologic and hydraulic models to reflect actual field conditions. Once the models have been updated, the proposed stormwater improvements will be reevaluated to verify the results. If needed, CBBEL will modify the proposed design to achieve the Village's desired level of protection for the residents of the Maycliff subdivision.

<u>Task 4 – Preliminary Engineering:</u> CBBEL will prepare preliminary plans, specifications and cost estimates for the project areas. We assume all the project areas will all be included into one set of construction documents to be completed under a single contract.

We estimate the following plan sheets will be required with associated work hours:

| SHEET HOURS  | No. of Sheets | Avg. Hours PER SHEET | Hours |
|--|---------------|----------------------|-------|
| Title Sheet  | 1             | 6                    | 6     |
| General Notes/ Summary of Quantities/ Typical Sections | 1             | 16                   | 16    |
| Alignment Ties & Benchmarks                            | 8             | 8                    | 64    |
| Water Main Plan & Profile 1"=20'                       | 15            | 24                   | 360   |
| Storm Sewer Plan & Profile 1" = 20'                    | 2             | 24                   | 48    |
| Erosion Control & Landscaping Plans & Details 1"=50'   | 4             | 12                   | 48    |
| Construction Details                                   | 2             | 8                    | 16    |
| Specifications   | -             | -                    | 16    |
| Cost Estimates/Quantity Calculations                   | -             | -                    | 20    |
| QA/QC Reviews  | =             | -                    | 8     |
| Total  | 33            |                      | 602*  |

<sup>\*</sup> Represents hours to complete Tasks 4 and 7.

Preliminary Plans, Specifications and a Cost Estimate will be submitted to the Village for review. This task includes one review meeting with Village Staff.

<u>Task 5 – MWRD Coordination and Permitting:</u> Since the existing Maycliff storm sewer system outlets into Schussler pond, which was originally permitted by the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), it is likely that they will seek modification of the existing permit. CBBEL will coordinate with MWRDGC and supply information and or submittals as needed to obtain approval for the construction of the proposed stormwater improvements.

<u>Task 6 – IEPA Permitting:</u> CBBEL will prepare all necessary permit applications and submit the plans and applications to the Illinois Environmental Protection Agency (IEPA) for approval. It is anticipated that the two permits that will be required by the IEPA are the National Pollution Discharge Elimination System construction permit and Public Water Supplies permit.

<u>Task 7 – Final Engineering:</u> 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.

<u>Task 8 – Bid Assistance:</u> CBBEL will assist the Village in advertising for bids, distribute plans and specifications to all bidders, and be present at the bid opening. CBBEL will review and tabulate all of the bids and make a recommendation of award.

## **ESTIMATED FEE**

The estimated costs for the tasks provided above are as follows:

| Task | DESCRIPTION                       | Соѕт      |
|------|-----------------------------------|-----------|
| 1    | Topographic Survey                | \$ 40,000 |
| 2    | Utility Coordination              | \$ 2,000  |
| 3    | Hydrologic and Hydraulic Modeling | \$ 4,800  |
| 4    | Preliminary Engineering           | \$ 50,000 |
| 5    | MWRD Coordination and Permitting  | \$ 3,200  |
| 6    | IEPA Permitting                   | \$ 2,000  |
| 7    | Final Engineering                 | \$ 25,000 |
| 8    | Bid Assistance                    | \$ 1,000  |
|      | Direct Costs                      | \$ 500    |
|      | Total                             | \$128,500 |

We will bill you in accordance with the previously agreed upon Standard Charges. Direct costs for mileage, blueprints, photocopying, postage, permit fees, overnight delivery, messenger services, and report binding are included in the Fee Estimate. We establish our contract in accordance with the previously accepted General Terms and Conditions. These General Terms and Conditions are expressly incorporated into and are an integral part of this contract for professional services. It should be emphasized that any requested meetings or additional services are not included in the preceding estimated fee and will be billed at the hourly rates previously agreed upon.

| Please sign and return one copy of this agreement as an indic<br>proceed. Please feel free to contact us anytime. | cation of acceptance and notice | to |
|---|---------------------------------|----|
| Christopher B. Burke, PhD, PE, D.WRE, Dist.M.ASCE<br>President  |                                 |    |
| THIS PROPOSAL, SCHEDULE OF CHARGES AND GENERAL TERMINED THE VILLAGE OF ORLAND PARK:                               | MS & CONDITIONS ACCEPTED F      | OR |
| BY: (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)   |                                 |    |
| TITLE:  |                                 |    |
| DATE:   | 1900                            |    |

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