



CHRISTOPHER B. BURKE ENGINEERING, LTD.

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September 9, 2021

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

Attention: Mr. Kevin Lehmann – Public Improvement Tech II

Subject: Proposal for Professional Engineering Services for
Fernway Road & Ditch Reconstruction Phases 7, 8 and 9

Dear Mr. Lehmann:

Christopher B. Burke Engineering, Ltd. (CBBEL) is pleased to submit this proposal to provide professional engineering services for the Fernway Road and Ditch Reconstruction of Phases 7, 8 and 9 as outlined by the Village of Orland Park (Village). This proposal includes our Understanding of the Assignment, Scope of Services and Fee.

UNDERSTANDING OF ASSIGNMENT

The Fernway Subdivision stormwater management system is an open drainage system that outlets to Tinley and Midlothian Creeks which traverse the neighborhood. CBBEL previously completed stormwater ditch designs for the areas bound by 171st St. to the south, 164th Pl to the North, 88th Ave to the west, and Village limits to the east. CBBEL also designed the 2021 improvements of Fernway which is currently under construction and is bound by 163rd St. to the North. The Village would like to extend the previous work out into the neighborhood by reestablishing the culvert and ditch flow lines that are critical to the effective functionality of an open drainage system. This proposal is for the regional drainage ditch design outlined as “2022, 2023, and 2024 sections”, within drainage areas #5, #6, and the remaining area of #4. In addition to this regional drainage design, this proposal includes the roadway reconstruction design for these sections. We understand that the Village will use general funds, therefore IDOT approval will not be required.

To complete an accurate, bid worthy design for the regional drainage design and the roadway design, CBBEL proposes to perform an aerial topographic survey with ground culvert verification for the road and ditch program. This survey will be similar to the previous program year’s survey for area #4.

It is important to note that this project will be designed to accommodate general overland flow and nuisance flooding (temporary standing water in poorly graded ditches) it is not

intended to solve the flooding issues in large rain events. Because this neighborhood lies within the floodplain/drainage area of both Midlothian and Tinley Creeks, solving the flooding from large storm events would require a significantly larger amount of infrastructure, land and design engineering.

SCOPE OF SERVICES

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

Task 1 – Topographic Survey: CBBEL will perform a topographic survey of the areas outlines above as “Area 5”, “Area 6”, and the remaining portion of “Area 4”. The survey will consist of a combination of an aerial drone survey to obtain surface elevations, supplemented with ground survey to obtain horizontal and vertical control points, approximate right-of-way, and driveway and roadway culverts and storm sewer information. The survey will be used to determine the drainage improvements that would be necessary to accommodate overland flow and reduce nuisance flooding. The survey will include:

- Horizontal Control: Utilizing state plane coordinates, CBBEL will set recoverable primary control utilizing state of the art GPS equipment based on NGS Control Monumentation.
- Vertical Control: CBBEL will establish benchmarks and assign elevations to the horizontal control points. This will be based on GPS observed Cook County Control Monumentation (NAVD’88 vertical control datum).
- Existing Right-of-Way: CBBEL will establish the approximate 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.
- Utility Survey and Coordination: All existing storm 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.
- Base Mapping: CBBEL will compile all of the above information onto one base map at 1”=20’ scale that is representative of existing conditions.

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

Task 3 – Preliminary Engineering: Using Tasks 1-2 deliverables, CBBEL will prepare Preliminary Engineering plans. The plans will be prepared in accordance with Village and IDOT design criteria. The plans are anticipated to include the following sheets:

Sheet Hours	Average Hours/ Sheet	Area remaining #4, #5 and #6	
		# of Sheets	Hours
Title Sheet	8	1	8
General Notes/ Summary of Quantities/ Typical Sections	8	6	48
Alignment Ties & Benchmarks	8	3	24
Roadway and Ditch Plan & Profile Grading Sheets 1"=20'	20	24	480
Erosion Control Plan	16	3	48
Quantity Schedules	16	6	96
Cross-Sections	4	45	180
Construction Details	4	2	8
Specifications	(20)	-	20
Opinion of Probable Costs/Quantity Calculations	(24)	-	24
QA/QC	-	-	12
TOTALS		90	948

Preliminary Plans, Specifications and opinion of probable cost will be submitted to the Village for review. This task includes one review meeting with Village Staff.

Task 4 – Permitting: Although the Village has jurisdiction over the majority of the areas where work is proposed, several other agencies and/or municipalities are located in one or more of the sub-watersheds. As needed to permit and/or construct the proposed improvements, CBBEL will coordinate with Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), Cook County, Illinois Department of Natural Resources – Office of Water Resources (INDR-OWR), Illinois Department of Transportation (IDOT), Tinley Park, and Orland Hills. CBBEL will also prepare a Stormwater Pollution Prevention Plan (SWPPP) consistent with the requirements of the Village's NPDES Phase II permit and submit it to the Illinois Environmental Protection Agency (IEPA).

Task 5 – Final Engineering: 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 6 – Local Agency Coordination/QA-QC/Administration: Although the Village owns the majority of the roadways where most of the work is proposed, there may be a need for coordination with adjacent municipalities or Cook County. CBBEL will meet and/or coordinate with all local governmental agencies as needed throughout the course of the design to obtain concurrence and /or approval for the proposed activities. All QA/QC aspects and project administration is included under this item.

Task 7 – Bid Assistance: 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.

FEE ESTIMATE

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

Task	Description	Area #4
1	Topographic Survey	\$ 45,800
2	Utility Coordination	\$ 5,500
3	Preliminary Engineering	\$ 118,000
4	Permitting	\$ 4,000
5	Final Engineering	\$ 36,000
6	Local Agency Coordination/QA-QC/Administration	\$ 3,600
7	Bid Assistance	\$ 1,800
Sub Total		\$ 214,700
Direct Costs		\$ 800
Total		\$ 215,500

We will establish our contract in accordance with the Master Agreement and associated rates for the Village of Orland Park.

Please sign and return one copy of this agreement as an indication of acceptance and notice to proceed. Please feel free to contact us anytime.

Sincerely,



Michael E. Kerr, PE
President

THIS PROPOSAL ACCEPTED FOR THE VILLAGE OF ORLAND PARK:

BY: _____

TITLE: _____

DATE: _____