

PROJECT UNDERSTANDING

We understand that The Village of Orland Park (Village) seeks professional engineering services to provide construction plans and specifications to construct water main in conjunction with the Illinois Department of Transportation (IDOT) reconstruction of 159th Street from Will-Cook Road to Ravinia Avenue. These services are to include services to adequately relocate the Village's existing facilities found to be in conflict with the proposed roadway improvements.

The proposed water main will connect to two existing water mains located just west of the Norfolk Southern Railroad (Metra) tracks and near the western property line of the existing Costco amounting to approximately 4,000 lineal feet. Due to the poor soil conditions found between the railroad tracks, extensive geotechnical analysis is proposed. Permitting activities will include permits through the Illinois Environmental Protection Agency (IEPA) for a municipal water main extension and any sanitary or water main relocations and with Metra for the water pipeline permit underneath the railroad. The crossing of Marley Creek / 104th Avenue and the railroad tracks are anticipated to be completed through trenchless construction with casing pipes. The engineering services shall also consider construction alternatives to pile supported water mains.

The project development is intended to coincide with the IDOT project timeline for its incorporation into the IDOT construction documents and letting process. Applicable IDOT standards, forms and CAD standards shall apply to this project except for those Village standards that may be more conservative in nature.

PROJECT APPROACH

Major tasks, activities, and submittals by the Lochner team, subject to Village review and approval will include the following:

Phase II Project Design

- Coordination and Meetings
 - Coordinate with the Village, IDOT, Metra, IEPA and any other Jurisdictional Governing Entities or stakeholder agencies which may have involvement with this project
 - Meetings as warranted (4 meetings included, 2 people, 4 hours each with documentation provided)
- Geotechnical Investigation and Analysis (Please refer to scope of services by Geo Services for complete description of Geotechnical services proposed)
 - Geo Services will conduct a minor supplemental investigation to supplement investigation supplied by IDOT
 - Geo Services will conduct an analysis of the existing soil conditions and provide recommendations for suitable treatments to provide suitable soil conditions for the water main
- Schematic Plan
 - A Schematic Plan will be developed using the results of the geotechnical investigation and the initial schematic drawing previously provided by the Village
 - The schematic plan will be transmitted to the Village for review prior to a meeting with the Village to finalize the approach towards the final design

- Structural Design
 - The inclusion of pile supports in the final design is anticipated to require four (4) structural sheets in the plans including one pile schedule, two plan view sheets and one detail sheet
- Plans, Specifications and Estimates
 - The plans, specifications and estimates will be developed for inclusion into the IDOT roadway plans for 159th Street (IDOT Contract 60L72)
 - Upon concurrence on the final design based upon the schematic plan, plans, specification and estimates will be prepared for inclusion to the IDOT roadway plans
 - Three (3) plan and profile sheets (at 1"=50' scale)
 - One (1) detailed Water Main layout sheet to show up to four (4) detailed views of proposed connections and boring pits
 - Inclusion of water main in the IDOT Drainage and Utility plans and Cross sections (Stage 1, 2 and 3 cross sections for four (4) plans sheets and approximately 53 cross sections)
 - Water Main construction detail sheets (3)
 - We anticipate that up to four (4) special or modified details will be required in the construction plans (one sheet)
 - Relocation Plans are to be included
 - Due to the current IDOT project schedule, the Plans, Specifications and Estimates for the Pre-Final submittal will be submitted for review to IDOT and the Village concurrently
 - The Final Plans will be submitted to the Village for final approval prior to inclusion to the IDOT Final Plan submittal
 - Estimates will be provided at the Pre-Final and Final plan submittals
- Permitting
 - Permit submittals are anticipated with the IEPA and Metra
 - Permit submittals are to be submitted two weeks after receipt of Village Comments regarding the Pre-Final plans
- Project Administration - Throughout the work phases, we will provide project management and overall administration services for the project consisting of, but not limited to, the following:
 - Maintain Project Schedule, Budget and Invoicing
 - Coordinate the work of the various disciplines and subconsultant
 - Attend Project Meetings as Warranted
 - Quality Control / Quality Assurance
 - Prepare a project specific QC/QA plan after refining scope with City.
 - QA procedures would be conducted during milestone points during all phases of the project.
 - QC procedures are to ensure that the plans and documents are clear, complete as appropriate to the project phase, consistent, free of errors, and that the concept is sound. This is ongoing throughout the project.

LIMITATIONS/ASSUMPTIONS

The scope is based upon our knowledge of this project as discussed through our previous correspondence. The limitations and assumptions below have been made in the preparation of this proposal in order to present the most pertinent scope of work.

- IDOT has made all roadway project soil borings and CAD drawings available to the Village for its use in the Water Main project
- The Village will provide comments on the schematic plan, pre-final and final plans
- The design will utilize the field survey conducted by IDOT
- The Village will provide pertinent water and sanitary system, as needed, information for IEPA permitting
- Permitting through the United States Army Corps of Engineers (USACE) for Section 404, IEPA for Section 401 water quality and IDNR for Floodway Construction is not included within this scope
- Relocations and adjustments to existing Village utilities (Water Main, Sanitary Sewer and Sanitary Force Main) are anticipated to be local to the conflicts and system relocations are not included within this scope

DELIVERABLES

The following list of deliverables has been developed with consideration to the timing of the IDOT roadway submittal schedule.

- Abbreviated Geotechnical Report
- Schematic Plan
- Pre-Final Submittal (to Village and IDOT concurrently)
 - Proposed Water Main Plan & Profile, Specifications and Estimate
 - Relocation Plan sheets
- Final Submittal (To Village for final review)
 - All Plans, Specifications and Estimates

COST ESTIMATE

Based upon the scope detailed above, we propose to complete this work for a not-to-exceed fee of \$117,018.29. Please refer to attached Cost Estimate of Consultant Services for detailed breakdown of labor and direct costs.