Village of Orland Park

John Humphrey Drive at 143rd Street

Phase II and Land Acquisition Services Proposal by: Patrick Engineering Inc.

October 20, 2021

PATRICK
ENGINEERING

John Humphrey Drive Phase II

Updated: 10/19/2021

Work Category	Original Offer (dated 10/1/21)	Revision A	Revision B	Revision C	Revised Offer (10/11/21)	Revised Offer (10/19/21)
Survey:	$ 11,000	$ -	$ -	$ -	$ 11,000	$ 7,500
Geotechnical:	$ 76,000	$ -	$ (10,000)		$ 66,000	$ 66,000
Environmental PSI:	$ 57,000	$ -	$ -	$ -	$ 57,000	$ 57,000
Roadway:	$ 297,000	$ (100,000)	$ -	$ -	$ 197,000	$ 164,000
Maintenance of Traffic:	$ 73,000	$ (20,000)	$ -	$ -	$ 53,000	$ 42,000
Structures:	$ 222,000	$ -	$ (80,000)	$ -	$ 142,000	$ 155,000
Drainage & Erosion Control:	$ 68,000	$ -		$ (10,000)	$ 58,000	$ 57,000
Signals and Lighting:	$ 73,000	$ -	$ -	$ (10,000)	$ 63,000	$ 64,000
Permits:	$ 48,000	$ -	$ -		$ 48,000	$ 43,000
Utilities:	$ 21,000	$ -	$ -	$ -	$ 21,000	$ 18,000
Admin/Coord/QA/QC:	$ 100,000	$ -	$ -	$ (30,000)	$ 70,000	$ 83,000
IDOT Subconsultant Factor	$ 7,000	$ -	$ -	$ -	$ 7,000	$ 6,500
Design Fee Reduction:		$ (120,000)	$ (90,000)	$ (50,000)		
Total Design Fee:	**$ 1,053,000**	**$ 933,000**	**$ 843,000**	**$ 793,000**	**$ 793,000**	**$ 763,000**
Estimated Construction Cost:	$ 7,455,000	$ -	$ -		$ 7,455,000	$ 7,455,000
Design : Construction Cost (%):	14.1%				10.6%	10.2%
Land Acquisition:	$ 105,000	$ -	$ -	$ -	$ 105,000	$ 85,000
Phase III Support:	$ 38,000	$ -	$ -	$ -	$ 38,000	$ 27,000
Total Fee:	**$ 1,196,000**	**$ (120,000)**	**$ (90,000)**	**$ (50,000)**	**$ 936,000**	**$ 875,000**

Revision A Scope Assumptions: Change in Plan Development Approach for Plan Split
Revision B Scope Assumptions: Change in Structural Approach for Cost Savings
Revision C Scope Assumptions: Reduction in Admin/Coord Based on Reduced Scope/Expedited Schedule

Orland Park – John Humphrey Drive at 143rd Street Phase II

Roadway Plan Split Approach

The RFQ for this project required final contract plan deliverables for three options (total project, bridge only, and intersection only) to maximize funding flexibility. However, all three sets will not ultimately be needed and would not be cost-effective in design. The project will either be built as one combined project or separately as a stand-alone bridge project and a stand-alone intersection project. As such, final contract documents are only needed for either one or two (maximum) sets of contract plans. Patrick proposes to develop the project design up to a 90% prefinal plan level, and hold there until the project funding is determined, at which point we will proceed with final contract documents for either the total project or two separate projects. This will be the most cost-effective means of developing the project for the Village and will still achieve all the goals set forth in the original RFQ for this project.

Dry Land Bridge Alternatives

In our QBS proposal, Patrick proposed further investigation of several construction cost savings measures for the dry land bridge, including reducing the number of drilled shafts in the proposed foundation and use of precast concrete elements.

After selection and during our development of the fee proposal, Patrick performed further comparison between the precast members and cast-in-place members on this project. The investigation shows that the advantage of precast members benefits the project schedule; however, does not significantly reduce the project construction cost. Traditional cast-in-place construction provides a better overall cost benefit to the client; and is therefore, recommended for the Phase II design. As a comparison, the existing dryland bridge at this location is a fully cast-in-place structure. Below is a brief summary of our comparisons and explanations.

Quality:

Precast members are known for their excellent casting quality under controlled environments and streamlined production in the casting yard. This is truer when they are made with mass production; however, field joints, between precast members, are often the weakness. If precast members are applied to the deck, horizontal prestressing in the deck is required to control cracks. These solutions are usually applied to multi-girder bridges. For this project, where span lengths are less than 30 ft., a non-prestressed slab deck is adequate. In general, Pretensioned Prestressed Deck Beams (PPDB) are discouraged by IDOT because of the crack and leak issues between the beams, even with another 5 inches of overlay. Cast-in-place concrete structures in generally are more durable and have the lowest maintenance cost because there are no field joints. If the span lengths were longer than 50 ft., then precast girder plus concrete deck would be a more competitive option because the cast-in-place slab bridge would be uneconomic due to excessive thickness. However, due to the weak soil condition, the most cost-balanced optimal span length is around 30 ft.

Construction Cost Considerations:

While precast construction can yield time and cost savings in many situations, after more detailed review, for short span bridges such as the 143rd Street dry land bridge, the construction cost of precast

members is often very close to traditional cast-in-place, with both in the range of $70 to $80 per square foot. The differentiators are based on three factors: 1.) unit precasting cost (for mass production), 2.) transportation/erection cost (for precast), and 3.) trestle/formwork cost (for cast-in-place). For example, for a bridge over a stream, precast/erection is about $5/SF cheaper than cast-in-place on average. However, for a grade separation structure, cast-in-place is about $10/SF cheaper on average. For this dry land bridge, all structures can be cast directly on the ground, so there is very minimal cost for trestle or formwork. The base construction cost of the cast-in-place solution is estimated to be up to $20/SF cheaper than precast/erection solution.

Total Cost Considerations:

While the base construction cost of cast-in-place may be less than the cost of precast, precast solutions typically yield lower total cost when the time saving and cost of traffic closure is considered. This is particularly true when replacing a bridge on a very high volume interstate highway or tollway. 143rd Street is a minor arterial with an ADT of about 25,000 vpd. This is a moderately busy road with local detour routes available to carry some of the traffic during stage construction. Additionally, due to the soft ground with EPS fill in the existing condition, crane erection of precast members would not be as straightforward as erecting from solid or paved ground in a typical above ground bridge setting. Without running a full quantitative estimation, we believe that in this dry land bridge situation, the time saving of precast option is not significant enough to substantially offset the higher base construction cost on this project. In the final analysis, it is our assessment that the total cost of precast options will be very similar to the final cost of cast-in-place.

Summary:

In general, precast structures are most favorable for three reasons: massive production (lower unit cost), difficulty in traffic closure (such as interstate or tollway), or impossible to cast-in-place (such as deep-water crossing). When these situations do not exist, a recommendation can be made based on a careful investigation. Although identified as a potential candidate for overall cost-savings in our original proposal, when all factors are considered, we do not feel the precast solution will achieve a discernable cost savings over traditional cast-in-place construction. Further additional risk is also introduced as the use of precast components would constitute a change in the structure design, requiring a revised Type, Size & Location (TS&L) from the Phase I, requiring IDOT review and approval. This would require additional time and coordination effort, without the guarantee that IDOT would even approve the revised design.

Project Coordination

With the above-described approach to the bridge design, Patrick will achieve the highest potential for construction cost savings by refining the foundation design for the added portion of the dry land bridge. This will be accomplished by additional geotechnical borings and structural analysis to reduce the number of drilled shafts from the Phase I design. This is considered a design refinement and will not require revising the TS&L drawings from Phase I, as this can be accomplished as part of the final design of the bridge. As such, additional structural/geotechnical coordination and reviews will not be required from IDOT per their statement in their 12/1/20 BCR & Technical Memorandum Approval Memo, “The

final structural plans and specifications for this project may be accepted by the District based on the Structural Engineer's seal, certification and signature per BLRS Manual Section 23-7.02.1."

Other Cost Savings Measures

Patrick will still be including investigation of the other construction cost saving measures in our Phase II scope of work, including:

- Refining the scope to include roadway widening and resurfacing instead of full reconstruction
- Eliminating some sections of enclosed storm sewer by way of ditches
- Avoiding relocations to Village-owned utilities
- Using combination traffic signal and lighting poles
- Reducing proposed ROW and temporary easements

SCOPE OF SERVICES

Phase II Engineering

John Humphrey Drive at 143rd Street

Village of Orland Park

Section No. 16-00078-00-CH

Patrick Engineering Inc.

October 21, 2021

PROJECT SCOPE, STANDARDS, AND PACKAGING

GENERAL UNDERSTANDING AND PROJECT SCOPE

The Village of Orland Park (Owner) proposes to improve the intersection of John Humphrey Drive (JHD) at 143rd Street. Federal funds will be used; therefore, coordination is required with the IDOT Bureau of Local Roads & Streets. In general, the scope of work includes the following features:

A. Widening and resurfacing the intersection of John Humphrey Drive at 143d Street to add auxiliary turn lanes on all four legs, including EB and WB dual left turn lanes and NB and SB right turn lanes.

B. The limits of the project are from Sta. 58+37 to Sta. 76+59 along 143rd Street and from Sta. 492+54 to Sta. 505+45 along JHD.

C. Filling in gaps in the existing sidewalk system including along the east side of the north leg and providing a landing in the southeast quadrant.

D. Developing drainage plans for the wider roadway to connect into the existing drainage system.

E. Traffic signal modernization and lighting improvements.

F. Repairs to and expansion of a dry land bridge (SN 016-D010) on the east leg of the intersection from Sta. 64+70 to Sta. 67+52.

G. Topographic (pick-up only) and boundary survey, plats, legal descriptions, right-of-way appraisals and negotiation services for ten (10) parcels.

H. Geotechnical investigations and analysis for the roadway widening and realignment.

I. Permitting for the proposed improvements, as defined later within this document.

J. Utility coordination for those impacted facilities relating to these improvements.

K. Evaluation of construction cost reduction strategies including:

- Refining the project scope to widening and resurfacing
- Reducing the number of drilled shafts for the dry land bridge foundation
- Replacing storm sewer with open ditch sections
- Avoiding relocations of Village-owned utilities
- The use of combination traffic signal and lighting poles
- Reduction in proposed ROW and temporary easements

STANDARDS, PACKAGING, AND SUBMITTAL DEVELOPMENT

Patrick (Consultant) and its subconsultant team shall prepare its deliverables in conformance, where applicable, within the framework of IDOT policies and procedures and local agency requirements, and applicable manuals and schedules in force at the time of this agreement including but not limited to:

1. IDOT CAD standards
2. IDOT Bureau of Design and Environmental (BDE) Manual
3. IDOT Bureau of Local Roads & Streets (BLRS) Manual
4. IDOT Drainage Manual

5. IDOT Bridge Manual
6. IDOT Geotechnical Manual
7. IDOT Survey Manual
8. IDOT Land Acquisition Policies and Procedure Manual
9. IDOT District 1 General Guidelines for Lighting Design
10. Manual on Uniform Traffic Control Devices (MUTCD)
11. American Association of State Highway and Transportation Officials (AASHTO) A Policy on Geometric Design of Highways and Streets
12. American National Standards Institute – Illuminating Engineering Society of North America (ANSI-IESNA) RP-8-18 American National Standard Practice for Roadway Lighting
13. Cook County Storm Water Management Plan
14. Village of Orland Park Ordinances

CONTRACT PLANS

Patrick will develop the complete project to the Pre-Final (95% complete) level. At that point, it will be determined if the project will be constructed as a single project or as two separate projects (one bridge contract and one intersection contract). Based on that determination, Patrick will take the plans to Final (100%) level and prepare the Phase II bid packages for either the single combined project or two separate projects (bridge and intersection). Any packages advanced to construction are intended to follow the IDOT-letting process, and it is expected that if multiple projects are pursued, they would be let and completed consecutively, such that construction would not be concurrent.

OPINION OF PROBABLE CONSTRUCTION COSTS

The opinion of probable costs for construction shall be prepared according to the current practices of IDOT and shall include all items of work required for the complete construction of the work, including all temporary work necessary. The unit prices to be used shall be in accordance with the methods used by IDOT.

1.0 TOPOGRAPHIC SURVEY

A ground topographic survey was completed during Phase I. Therefore, only supplemental pick-up field survey will be needed during Phase II. This is anticipated to be what is required to provide the basis for the Phase II Design and will include additional topographic and utility survey for areas proposed to be improved that extend beyond the limits of the Phase I survey.

2.0 GEOTECHNICAL AND ENVIRONMENTAL SERVICES

Patrick shall perform geotechnical investigations in accordance with IDOT Geotechnical Manual procedures. The investigation will consist of roadway borings where the roadway will be widened by at least 6-feet and structure borings to obtain additional information for the design of the deep foundation system to support the dry land bridge. The investigation will consist of:

- Three (3) deep borings along the north side of the planned dry land bridge. Two (2) borings will be drilled to a depth of 75-feet and one (1) boring will be drilled to 100-feet. The 75-foot borings

are needed to evaluate possible straight-shaft piers or piles, and the 100-foot boring is needed to determine seismic classification as well as to verify the vertical extent of the dense silt encountered at the termination depth of the previous borings. One (1) of the borings will be drilled through the existing pavement to verify the presence and thickness of the EPS. Two (2) of the borings will be converted to open standpipe type piezometers (with flush-mount protectors) to determine the depth to groundwater near the planned bridge.

- Four (4) borings will be taken in the four quadrants of the intersection of 143rd Street and JHD. The borings will be drilled to 25-feet depth to determine the thickness of peat in the areas of planned pavement widening and for use in approach slab design.
- Three (3) borings will be taken for pavement widening. These borings will be drilled to a depth of 10-feet, or deeper, if peat is encountered at that depth.
- Laboratory testing will include Moisture Content (100 max.), Atterberg Limits (22 max.), Grain Size (20 max.), Unconfined Compressive Strength of cohesive samples (14 max.), consolidation of peat or low strength clay (3 max.), specific gravity (3 max.), and density (29 max.).
- A longitudinal subsurface soil profile will be provided along the proposed roadway alignment outside the land bridge. A Roadway Geotechnical Report (RGR) will be prepared.
- A cross-sectional profile of the soil stratification (along the north side of 143rd Street) will be produced for the land bridge.
- The Structure Geotechnical Report with Supplemental Memorandum (SGR) from Phase I will be updated.

The Phase I Preliminary Environmental Site Assessment (PESA) identified 10 sites as Recognized Environmental Conditions (REC's). A special waste Preliminary Site Investigation (PSI) will be completed based on the results of the PESA. To support the PSI, 23 additional soil borings will be taken along the portions of the alignment adjoining the sites containing REC's and soil samples for environmental analyses (specific analyses will be based on the nature of the REC) will be collected. Patrick will complete a PSI Report based on the results of the soil borings and environmental analyses.

3.0 ROADWAY DESIGN

Patrick shall prepare roadway construction plans (including all base sheets), design calculations, specifications, and opinions of probable cost for the improvements as described above and in conformance with the IDOT-approved Phase I Project Development Report (PDR) for this project. Either one (1) or two (2) sets of contract documents will be prepared, either a.) one (1) for the dry land bridge work and one (1) for the intersection improvement, or b.) one (1) for the overall combined contract including the intersection and bridge work. The roadway plans shall include the development for the following plans, specifications, opinion of probable construction costs, and appropriate forms as listed below:

<u>Dry Land Bridge Contract:</u>

- Cover Sheet
- Index of Sheets, General Notes, and List of Standards
- Summary of Quantities
- Typical Sections

- Alignment & Ties
- Plan and Profile Sheet
- Pavement Marking and Signing Plans
- Landscaping Plans
- Structural Plans
- Cross-Sections (at bridge location only)
- Miscellaneous Details
- IDOT Standard Details
- IDOT EOPC BDE Form 213
- IDOT Estimate of Time BDE Form 220a

Intersection Contract:

- Cover Sheet
- Index of Sheets, General Notes, and List of Standards
- Summary of Quantities
- Quantity Schedules
- Typical Sections
- Alignment & Ties
- Removal Plans
- Roadway Plan and Profile Sheets
- ADA Curb Ramp Details
- Pavement Marking and Signing Plans
- Traffic Signal Plans
- Lighting Plans
- Landscaping Plans
- Cross-Sections (every 100 feet along mainline and side streets, including driveways)
- Miscellaneous Details
- IDOT Standard Details
- IDOT EOPC BDE Form 213
- IDOT Estimate of Time BDE Form 220a

Combined Contract (Bridge and Intersection):

- Cover Sheet
- Index of Sheets, General Notes, and List of Standards
- Summary of Quantities
- Quantity Schedules
- Typical Sections
- Alignment & Ties
- Removal Plans
- Roadway Plan and Profile Sheets
- ADA Curb Ramp Details
- Pavement Marking and Signing Plans
- Traffic Signal Plans
- Lighting Plans

- Landscaping Plans
- Structural Plans
- Cross-Sections (every 100 feet along mainline and side streets, including driveways)
- Miscellaneous Details
- IDOT Standard Details
- IDOT EOPC BDE Form 213
- IDOT Estimate of Time BDE Form 220a

PAVEMENT DESIGN

Patrick shall develop the recommended pavement design and supporting documentation and calculations.

4.0 CONSTRUCTION STAGING AND MAINTENANCE OF TRAFFIC

The Phase I documentation recommends the use of staged construction under traffic (e.g., lane shifts, temporary pavement, and reduced lane widths) for construction. Plans, specifications, and quantities as listed below, dedicated to the maintenance of traffic, shall be developed for this corridor:

- Typical Sections (per phase)
- Plan Sheets (per phase) (with temporary signing, marking, pavement, etc.)
- General Notes for Construction Staging
- Special MOT Details (temporary pavement, temporary signals, intersection details (by phase), etc., as required), temporary drainage

Patrick will either prepare the MOT plans for two separate projects (one bridge and one intersection) or one combined project (intersection and bridge), depending on how the project will be built. The anticipated staged construction scheme for the Intersection Improvement contract is as follows:

- Stage 1:
  - Construct temporary pavement along the north side of 143rd Street.
  - Maintain traffic through the intersection by shifting traffic to the west side of John Humphrey Drive and the north side of 143rd Street on the newly constructed temporary pavement.
  - This allows Contractor to construct the east curb and gutter and NB lanes of John Humphrey Drive and the south curb and gutter and EB lanes of 143rd Street.
- Stage 2:
  - Shift John Humphrey Drive traffic to the east side of John Humphrey Drive and 143rd traffic the south side of 143rd Street to maintain traffic through the intersection.
  - Construct the west curb and gutter and SB lanes of John Humphrey Drive and north curb and gutter and WB lanes of 143rd Street.
- Stage 3:
  - Construct remaining medians and sidewalk along both 143rd Street and John Humphrey Drive under traffic using temporary lane shifts as required.

The anticipated staged construction scheme for the Dry Land Bridge contract is as follows:

- Stage 1:

- Shift traffic to the north side of 143rd Street, maintaining one (1) lane of traffic in each direction.
- Perform the repair work on the existing dry land bridge.

- Stage 2:
  - Shift traffic to the south side of 143rd Street.
  - Build the dry land bridge expansion.

The anticipated staged construction scheme for the combined Improvement contract is as follows:

- Stage 1:
  - Shift traffic to the north side of 143rd Street, maintaining one (1) lane of traffic in each direction.
  - Perform the repair work on the existing dry land bridge.
- Stage 2:
  - Shift traffic to the south side of 143rd Street.
  - Build the dry land bridge expansion.
- Stage 3:
  - Construct temporary pavement along the north side of 143rd Street.
  - Maintain traffic through the intersection by shifting traffic to the west side of John Humphrey Drive and the north side of 143rd Street on the newly constructed temporary pavement.
  - This allows Contractor to construct the east curb and gutter and NB lanes of John Humphrey Drive and the south curb and gutter and EB lanes of 143rd Street.
- Stage 4:
  - Shift John Humphrey Drive traffic to the east side of John Humphrey Drive and 143rd traffic the south side of 143rd Street to maintain traffic through the intersection.
  - Construct the west curb and gutter and SB lanes of John Humphrey Drive and north curb and gutter and WB lanes of 143rd Street.
- Stage 5:
  - Construct remaining medians and sidewalk along both 143rd Street and John Humphrey Drive under traffic using temporary lane shifts as required.

This construction sequencing approaches above assume that any contracts are let separately as described above in Contract Packaging.

5.0 DRAINAGE SYSTEM DESIGN / EROSION AND SEDIMENT CONTROL

DRAINAGE SYSTEM DESIGN

The Roadway Drainage task includes development of construction plans and profiles, detailed calculation book, summary of quantities, and project specifications. There is no FEMA regulatory floodplain or floodway within the project limits and no major waterway crossings.

In general, all stormwater within the project limits in the Mill Creek watershed is ultimately tributary to the Cal-Sag Channel. Several sub-outlets exist along John Humphrey Drive, where storm sewers leave the project right-of-way flowing generally east. The existing drainage system consists of primarily closed

storm sewer systems.

Plan development includes review of drainage concepts and proposed design intent, review data from inspections of existing facilities and available as-builts, preparation of analyses to modify the existing drainage system and/or construct a new drainage system. Drainage design and calculations including hydraulic analysis, inlet spacing, storm sewer, ditch design and compensatory storage sizing.

The proposed drainage improvement will include a removal and replacement of existing storm sewers within the project limits as listed below. All existing storm sewer segments to remain will be inspected for condition assessment.

The 54" RCP sewer under 143rd Street flows south to north and serves as a regional storm sewer system for approximately 115 acres of tributary area. Roadway widening and intersection improvements will require all new drainage structures at the new curb and gutter locations. Care will be taken at all identified sensitive outlet locations and identified areas of flooding. Stormwater detention will not be required as the increase in impervious area is under the required threshold. Temporary drainage will be included on the Erosion and Sediment Control Plans.

EROSION AND SEDIMENT CONTROL

This task will include the preparation of construction plans, specifications and estimates for all anticipated best management practices (BMP) implemented in the design of the project. Erosion and Sediment Control plans will be coordinated with the proposed drainage plans to identify and manage all potential sources of stormwater discharge. Perform the Water Quality analysis and evaluate the use of Water Quality BMP's at drainage outfalls. Evaluate alternatives for volume control and water quality Best Management Practices in accordance with the WMO and USACE Regional Permit 3 requirements (if necessary). All drainage structures will be equipped with a 2-foot deep sump below the outlet elevation to allow the settling of debris, along with analyzing feasibility of open-bottom catch basins for groundwater recharge. Any temporary drainage between MOT stages will be included in this section.

6.0 TRAFFIC SIGNALS AND LIGHTING PLANS

TRAFFIC SIGNAL PLANS

Plans, details, specifications, and schedule of quantities to accommodate both the permanent and staged construction of the 143rd Street and John Humphrey Drive signalized intersection. The staged construction and temporary traffic signal improvements anticipate two (2) stages of construction. Deliverables shall also include:

- LED street name signs, grounding details, vehicle detection, and electric service requirements
- Pedestrian signals and pedestrian actuations, where appropriate
- Emergency vehicle pre-emption details (including evaluation of whether existing equipment can be reused)
- Temporary and permanent signal interconnect plans, details, and specifications related to:
    - Maintaining a temporary interconnect schematic to maintain traffic signal coordination westbound to 95th Avenue along 143rd Street during the phased construction, and
    - Permanent traffic signal interconnect plan sheets and an interconnect schematic using

24 F SM/12 F MM for the proposed traffic signal installation and the entire IDOT twenty-six (26) intersection closed loop system 3H

LIGHTING PLANS

Lighting plans, details, specifications, and schedules of quantities shall be prepared for the proposed intersection improvement and all approaches, including crosswalks within the project limits. Plans, details, specifications, and schedules of quantities will be prepared for the permanent condition as well as the two (2) phases of interim construction. To support these services, we will for all phases and the permanent condition:

- Perform the necessary photometrics analysis to verify adequate lighting levels
- Coordinate with the electric utility to determine locations for any new electric service points, if needed

7.0 PERMITTING

Updated Wetland Field Reconnaissance and Report: An updated field investigation of the project site will be completed to verify the current limits of wetlands and Waters of the U.S. present. The updated delineation will be completed based on the methodology established by the U.S. Army Corps of Engineers (USACE). Any changes to the wetland limits will be field staked and delineated using a sub-meter accuracy handheld GPS unit. The results of the current Waters of the U.S./wetland field reconnaissance will be summarized in an updated letter report for use in wetland permitting.

Threatened and Endangered Species Consultation: Threatened and endangered species clearances obtained during Phase I will be updated via coordination with IDOT.

Regional Permit Application Preparation and Submittals: Due to wetland impacts, the required exhibits, specifications, data and project information will be compiled and assembled in permit application packages to the USACE, the Illinois Environmental Protection Agency (IEPA), and USFWS, if required. We will coordinate development of the documents with you and other project team members. This task may require meeting with the USACE, IEPA, USFWS, IDNR, and potentially other federal, state and local agencies to coordinate permitting activities.

This task will also include preparation of a submittal to the Will/South Cook County Soil and Water Conservation District to obtain an approval of the Soil Erosion and Sediment Control plan as required by the USACE.

This permitting scope is based on submittal of a Regional Permit application. If the project cannot meet the conditions of a Regional Permit, an Individual Permit will be required. Preparation of an Individual Permit application will require a supplemental proposal to cover the cost of additional required tasks.

Storm Water Pollution Prevention Plan Preparation and Notice of Intent: We will prepare Storm Water Pollution Prevention Plan (SWPPP) BDE Form 2342 in accordance with Part IV of the General NPDES Permit No. ILR10. We will also prepare and submit a Notice of Intent (NOI) to the Illinois Environmental Protection Agency (IEPA). This task assumes that this project will include two separate contract packages. A SWPPP and NOI will be prepared for each contract package. The Soil Erosion & Sediment Control Plan will be prepared under a different task.

8.0 RIGHT-OF-WAY (ROW) AND PLAT OF HIGHWAYS

ROW coordination will be required with the IDOT Bureau of Land Acquisition (BLA) during the preparation of the plats of highways and the land acquisition phase and will follow IDOT procedures and requirements. For each of the ten (10) parcels that are assumed (as identified in the Phase I Project Development Report) to be impacted by this project, Patrick will provide the following services for each of the parcels, as needed:

RIGHT-OF-WAY ENGINEERING

Patrick shall prepare or cause to be prepared title research, legal descriptions, route survey plats and/or right-of-way parcel plats, acquisition instruments, and other materials to be used in the acquisition of right-of-way.

APPRAISALS

Patrick shall perform or cause to be performed real estate appraisals and prepare appraisal reports through the services of an IDOT pre-qualified appraiser.

APPRAISAL REVIEW

Patrick agrees to furnish the Village all comparables used in the report, attached to each report, consisting of sufficient sales data in the vicinity of the project of such recent date that a pattern of values may be established. Each comparable property will be identified by photograph and shall be located on electronic map attached to each report that is be furnished to the Village.

NEGOTIATION AND ACQUISITION SERVICES

Negotiation services will be performed by Patrick for the parcels to acquire. Patrick shall make every reasonable effort to acquire assigned parcels expeditiously through negotiators pre-qualified by IDOT.

9.0 UTILITY COORDINATION

Patrick shall coordinate with the utility companies identified during the Phase I (including Comcast, Com-Ed, AT&T, and Nicor, as well as Village watermain and sanitary sewer) who own or utilize infrastructure located within the corridor to identify potential conflicts with the proposed infrastructure improvements. Coordination shall consist of an initial meeting with the identified utility companies, in which the identified conflict is discussed and a follow-up meeting in which the conflict resolution plan and schedule are agreed to by Village and the Utility. Patrick representatives shall work with the respective utility companies to provide input regarding any relocation plans that they propose to mitigate their conflicts. Patrick shall maintain a matrix of utility companies within the corridor, their representative's contact information, and maintain a record of correspondence with those companies to keep them informed of the proposed improvement. Six (6) individual meetings with the suspected, affected utilities have been included to facilitate the coordination effort.

This section contains time necessary to incorporate updated existing utility information and layout of any relocated utilities provided by the utility companies into the CADD base files. The removal of utility

structures will be shown on Removal Plans while abandonment/removal and installation of proposed utility lines will be shown on the Drainage and Utility plans.

10.0 STRUCTURAL

The structural work within this section includes:

- Rehabilitation of the existing Dry Land Bridge (SN 016-D010) on 143rd Street
- Extension of the existing Dry Land Bridge to the west
- Building a new Dry Land Bridge on the north side of 143rd Street to carry new WB traffic

The scope of work includes design calculations, plans, specifications, and opinion of probable construction cost. The proposed work includes the following:

A. Plan Development Outline (PDO)
B. Dry Land Bridge Plan Sheets
    - General Plan and Elevation
    - Foundation Plan
    - Stage Construction Details
    - Temporary Concrete Barrier for Stage Construction
    - Top of Slab Elevations (2 sheets)
    - Top of Approach Slab Elevations
    - Superstructure – West End
    - Superstructure – Interior
    - Superstructure – East End
    - Superstructure Details
    - Bridge Approach Slab Details (3 sheets)
    - Preformed Joint Strip Seal
    - Structure Removal Details
    - CIP Bent Details (2 sheets)
    - Optional Precast Bent Details (2 sheets)
    - Drilled Shaft (Pile) Details
    - Bar Splicer and Mechanical Splicers Details
    - Soil Boring Logs (4 sheets)
C. AASHTOWare Load Rating
D. Specifications
E. Structural calculations
F. Quantity calculations
G. Estimates
    - Estimate of Time (final submittal only)
    - Engineers Opinion of Probable Construction Cost (each submittal)

11.0 PROJECT MANAGEMENT, COORDINATION, AND CONTRACT ADMINISTRATION

Patrick shall provide project management, coordination, and contract administration for the current expected duration of the project, as specified as the milestone “PS&E to Springfield.” Coordination efforts

will include the following:

- Meetings with the Village of Orland Park
- Meetings with IDOT
- Meetings with permitting agencies
- Meetings with property owners
- Meetings with adjacent developers

Patrick shall provide contract administration for the internal Patrick Team members, correspondence and document control administration, safety, communications, and an overall project management plan, including the development and regular monitoring of the project budget, staffing allocation, project schedule, and preparation of monthly progress reports and invoices.

Patrick shall assist the Village with the identification and application for additional funding for up to five (5) different funding grant opportunities for a duration of up to two (2) years after this design project is complete. Patrick will also assist the Village in preparing the RFQ for Phase III Engineering Services.

12.0 QUALITY

An ISO9001-compliant Quality Assurance and Quality Control (QA/QC) plan shall be implemented for the project. The Quality Plan shall outline internal processes and procedures Patrick shall take for each milestone deliverable to ensure that the appropriate checks have been performed, comments have been addressed and resolved, and certify that the processes have been followed. The Quality Manager shall make these certifications for all deliverables identified within this project scope.

13.0 PHASE III COORDINATION

Post-contract coordination for the project shall include tasks in following areas of support. After acceptance of the bidding documents by the Village, Patrick shall:

- Attend one (1) Pre-Bid Conference meeting.
- Issue addenda as appropriate to clarify, correct, or change the bidding documents.
- If bidding documents require, evaluate and determine acceptability of “of equals” and substitute material and equipment proposed by bidders.
- During construction, Patrick shall be available at reasonable times during normal working hours to respond to reasonable inquires concurring the accuracy or intent of the Plans.
- Patrick shall review and approve or take other appropriate action upon Contractor’s submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

EXCLUSIONS

The following items are not included as part of this agreement:

A. Public Meetings or Hearings

B. Noise Wall Plans

C. Pump Station Plans

D. Preparation of Request for Exception to Compliance with the Work Zone Safety and Mobility Rule (BSE WZ 2) and the required attachments

E. Speed Studies

F. Signal Warrant Studies

G. Highway Capacity Analyses

H. Sight Distance Studies

I. Subsurface Utility Exploration (SUE)

J. Local Utility Design and/or Plans

K. Construction Layout and/or Construction Observation

MILESTONE SCHEDULE

It is estimated that the Phase II engineering duration will be approximately twenty-four (24) months from Notice to Proceed (NTP), anticipated to occur in October 2021. Below is a high-level milestone project schedule:

Milestone	Submittal Date
Pick-up and Boundary Survey / Geotech Investigations	3/22
Preliminary Contract Plans and Specifications (60%)	8/22
Pre-Final Contract Plans and Specifications (95%)	3/23
Final Contract Plans and Specifications (100%)	5/23
PS&E to Springfield	6/23
Letting	9/23

Illinois Department of Transportation

EXHIBIT E

COST ESTIMATE OF CONSULTANT SERVICES WORKSHEET

FIXED RAISE

Local Public Agency	County	Section Number
Village of Orland Park	Cook	16-00078-00-CH

Consultant (Firm) Name	Prepared By	Date
Patrick Engineering	Jarrod Cebulski	9/24/2021

PAYROLL ESCALATION TABLE

CONTRACT TERM	24	MONTHS	OVERHEAD RATE	148.96%
START DATE	11/1/2021		COMPLEXITY FACTOR	0
RAISE DATE	1/1/2022		% OF RAISE	2.00%
END DATE	10/31/2023			

ESCALATION PER YEAR

Year	First Date	Last Date	Months	% of Contract
0	11/1/2021	1/1/2022	2	8.33%
1	1/2/2022	1/1/2023	12	51.00%
2	1/2/2023	11/1/2023	10	43.35%

The total escalation = 2.68%

Local Public Agency	County	Section Number
Village of Orland Park	Cook	16-00078-00-CH

MAXIMUM PAYROLL RATE **78.00**
ESCALATION FACTOR **2.68%**

PAYROLL RATES

Exhibit E Cost Estimate of Consultant Services Worksheet Fixed Raise

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Project Manager	78	$78.00
Project Engineer 3/4	64.4	$66.13
Project Engineer 1/2	47.41	$48.68
Staff Engineer 3	44.57	$45.77
Staff Engineer 2	39.46	$40.52
Staff Engineer 1	32.75	$33.63
CAD Designer	33.32	$34.21
Technical Specialist	46.64	$47.89
Technician	24.2	$24.85
Administrative Assistant	29.8	$30.60

Local Public Agency	County	Section Number
Village of Orland Park	Cook	16-00078-00-CH

SUBCONSULTANTS

Exhibit E Cost Estimate of Consultant Services Worksheet Fixed Raise

NAME	Direct Labor Total	Contribution to Prime Consultant
Christopher Burke	66,460.00	6,646.00
ROW Acquisitions		

Total **66,460.00** **6,646.00**

Local Public Agency	County	Section Number
Village of Orland Park	Cook	16-00078-00-CH

COST ESTIMATE WORKSHEET

Exhibit E Cost Estimate of Consultant Services Worksheet Fixed Raise

OVERHEAD RATE 148.96% **COMPLEXITY FACTOR** 0

TASK	STAFF HOURS	PAYROLL	OVERHEAD & FRINGE BENEFITS	DIRECT COSTS	FIXED FEE	SERVICES BY OTHERS	TOTAL	% OF GRAND TOTAL
Topographic Survey	60	2,454	3,655	528	810		7,447	0.85%
Geotech and Environmental	340	15,996	23,828	78,020	5,279		123,123	14.07%
Roadway Design	1265	57,712	85,967	1,050	19,045		163,774	18.72%
MOT	320	14,896	22,190		4,916		42,002	4.80%
Drainage and Erosion Control	40	2,129	3,172		703		6,004	0.69%
Signals and Lighting	40	2,232	3,324		736		6,292	0.72%
Permitting	20	1,084	1,614		358		3,056	0.35%
ROW Services and Plats	256	10,971	16,343	7,485	3,620		38,419	4.39%
Utility Coordination	16	1,003	1,494		331		2,828	0.32%
Structural	1140	54,961	81,869		18,137		154,967	17.71%
Project Management/Coordination	290	19,057	28,388	2,130	6,289		55,864	6.39%
Quality Assurance	80	5,261	7,837	250	1,736		15,084	1.72%
Phase III Support	120	5,945	8,856	260	1,962		17,023	1.95%
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
Christopher Burke		-	-		-	185,359	185,359	21.19%
ROW Acquisitions		-	-		-	47,000	47,000	5.37%
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
Subconsultant DL					6,646		6,646	0.76%
TOTALS	3987	193,701	288,537	89,723	70,568	232,359	874,888	100.00%

482,238

CREDIT FOR SINGLE PLAN SET DELIVERABLE = (-$25,000) REVISED TOTAL = $849,888

BLR 05514 (Rev. 03/12/21)
Cost Estimate Worksheet

Local Public Agency	County	Section Number
Village of Orland Park	Cook	16-00078-00-CH

AVERAGE HOURLY PROJECT RATES

Exhibit E Cost Estimate of Consultants Services Worksheet Fixed Raise

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			Topographic Survey			Geotech and Environmental			Roadway Design			MOT			Drainage and Erosion Control		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Project Manager	78.00	490.0	12.29%	9.59	6	10.00%	7.80	42	12.35%	9.64	68	5.38%	4.19	8	2.50%	1.95	4	10.00%	7.80
Project Engineer 3/4	66.13	528.0	13.24%	8.76				22	6.47%	4.28	212	16.76%	11.08	44	13.75%	9.09	14	35.00%	23.14
Project Engineer 1/2	48.68	486.0	12.19%	5.93							110	8.70%	4.23						
Staff Engineer 3	45.77	543.0	13.62%	6.23	14	23.33%	10.68	122	35.88%	16.42	127	10.04%	4.59	96	30.00%	13.73			
Staff Engineer 2	40.52	961.0	24.10%	9.77				72	21.18%	8.58	283	22.37%	9.06	172	53.75%	21.78	22	55.00%	22.29
Staff Engineer 1	33.63	499.0	12.52%	4.21	40	66.67%	22.42	70	20.59%	6.92	265	20.95%	7.04						
CAD Designer	34.21	456.0	11.44%	3.91				12	3.53%	1.21	200	15.81%	5.41						
Technical Specialist	47.89	0.0																	
Technician	24.85	0.0																	
Administrative Assistant	30.60	24.0	0.60%	0.18															
		0.0																	
		0.0																	
		0.0																	
		0.0																	
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TOTALS		3987.0	100%	$48.58	60.0	100.00%	$40.90	340.0	100%	$47.05	1265.0	100%	$45.62	320.0	100%	$46.55	40.0	100%	$53.23

Local Public Agency	County	Section Number
Village of Orland Park	Cook	16-00078-00-CH

AVERAGE HOURLY PROJECT RATES

Exhibit E Cost Estimate of Consultant Services Worksheet Fixed Raise

SHEET 2 OF 3

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Signals and Lighting			Permitting			ROW Services and Plats			Utility Coordination			Structural			Project Management/Coordination		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Project Manager	78.00	4	10.00%	7.80	4	20.00%	15.60	4	1.56%	1.22	4	25.00%	19.50	204	17.89%	13.96	108	37.24%	29.05
Project Engineer 3/4	66.13	18	45.00%	29.76	4	20.00%	13.23				8	50.00%	33.06				134	46.21%	30.56
Project Engineer 1/2	48.68													326	28.60%	13.92	8	2.76%	1.34
Staff Engineer 3	45.77				4	20.00%	9.15	180	70.31%	32.18									
Staff Engineer 2	40.52	18	45.00%	18.23	8	40.00%	16.21				4	25.00%	10.13	366	32.11%	13.01	16	5.52%	2.24
Staff Engineer 1	33.63							72	28.13%	9.46									
CAD Designer	34.21													244	21.40%	7.32			
Technical Specialist	47.89																		
Technician	24.85																		
Administrative Assistant	30.60																24	8.28%	2.53
TOTALS		40.0	100%	$55.79	20.0	100%	$54.19	256.0	100%	$42.86	16.0	100%	$62.69	1140.0	100%	$48.21	290.0	100%	$65.71

Local Public Agency	County	Section Number
Village of Orland Park	Cook	16-00078-00-CH

AVERAGE HOURLY PROJECT RATES

Exhibit E Cost Estimate of Consultant Services Worksheet Fixed Raise

SHEET 3 OF 3

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Quality Assurance			Phase III Support												Christopher Burke		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Project Manager	78.00	24	30.00%	23.40	10	8.33%	6.50												
Project Engineer 3/4	66.13	38	47.50%	31.41	34	28.33%	18.74												
Project Engineer 1/2	48.68	18	22.50%	10.95	24	20.00%	9.74												
Staff Engineer 3	45.77																		
Staff Engineer 2	40.52																		
Staff Engineer 1	33.63				52	43.33%	14.57												
CAD Designer	34.21																		
Technical Specialist	47.89																		
Technician	24.85																		
Administrative Assistant	30.60																		
TOTALS		80.0	100%	$65.76	120.0	100%	$49.55	0.0	0%	$0.00	0.0	0%	$0.00	0.0	0%	$0.00	0.0	0%	$0.00

PATRICK MANHOUR ESTIMATE - INPUT

Project:
Client:
MANHOUR INPUT (by Phase, Task & Activity)

		$ 78.00	$ 64.40	$ 47.41	$ 44.57	$ 39.46	$ 32.75	$ 33.32	$ 46.64	$ 24.20	$ 29.80	**by Category):**
WBS	**Phase / Task / Activity Description**	**Input Proj Mgr (hrs)**	**Input Proj Eng 3/4 (hrs)**	**Input Proj Eng 1/2 (hrs)**	**Input Staff Eng 3 (hrs)**	**Input Staff Eng 2 (hrs)**	**Input Staff Eng 1 (hrs)**	**Input CADD (hrs)**	**Input Tech Spec (hrs)**	**Input Technic-ian (hrs)**	**Input Admin Assist (hrs)**	**Total (hrs)**
1.0	***Topographic Survey***											***60***
1.1	***Task Management / QC***											***4***
1.1.1	Task Management / QC	4										4
1.2	***Pick-up Survey***											***56***
1.2.1	Pick-up Topographic Survey Cross Sections (field)						32					32
1.2.2	Pick-up Topographic Survey Cross Sections (office)	2			12							14
1.2.3	Stakeout and Locate Borings				2		8					10
2.0	***Geotechnical and Environmental Services***											***340***
2.1	***Task Management / QC***											***10***
2.1.1	Task Management / QC	4	6									10
2.2	***Geotechnical***											***190***
2.2.1	Roadway Geotechnical Investigation	2	4		2		10					18
2.2.2	Roadway Geotechnical Reporting	2			14		6	4				26
2.2.3	Additional Structural Geotechnical Analysis	6			20							26
2.2.4	Structure Geotechnical Investigation	2	6		6		36					50
2.2.5	Preliminary Structural Geotechnical Report	8			14		18	4				44
2.2.6	Approach Roadways Evaluation				2							2
2.2.7	Evaluating Equipment and Construction Restrictions wrt EPS	2			2							4
2.2.8	Geotechnical Recommendations Comment Resolution (Internal)	10										10
2.2.9	Final Structural Geotechnical Report	4			6							10
2.2.10	IDOT Correspondence and Addressing Comments											-
2.3	***Special Waste PSI***											***140***
2.3.1	PSI		2		18	36						56
2.3.2	Reporting	2	4		38	36		4				84
3.0	***Roadway Design***											***1,265***
3.1	***Task Management / QC***											***40***
3.1.1	Task Management / QC	24	16									40
3.2	***Preliminary (60%) Roadway Plans - Total Project***											***593***
3.2.1	Base Sheet Preparation							24				24
3.2.2	Pavement Design			2		6						8
3.2.3	Cover Sheet		2		6							8
3.2.4	Index, General Notes, and Standards		2		8							10
3.2.5	Summary of Quantities		10					20				30
3.2.7	Existing and Proposed Typical Sections		2	8		16						26
3.2.9	Alignment & Ties Sheet			4		6						10

PATRICK MANHOUR ESTIMATE - INPUT

Project:

Client:

MANHOUR INPUT (by Phase, Task & Activity)

		$ 78.00	$ 64.40	$ 47.41	$ 44.57	$ 39.46	$ 32.75	$ 33.32	$ 46.64	$ 24.20	$ 29.80	**by Category):**
WBS	**Phase / Task / Activity Description**	**Input Proj Mgr (hrs)**	**Input Proj Eng 3/4 (hrs)**	**Input Proj Eng 1/2 (hrs)**	**Input Staff Eng 3 (hrs)**	**Input Staff Eng 2 (hrs)**	**Input Staff Eng 1 (hrs)**	**Input CADD (hrs)**	**Input Tech Spec (hrs)**	**Input Technic-ian (hrs)**	**Input Admin Assist (hrs)**	**Total (hrs)**
3.2.10	Removal Plans		2			16		12				30
3.2.11	Plan & Profile (4 sheets)		4	28			48					80
3.2.12	ADA Details (8 ramps at 4 hours each)		2			24		6				32
3.2.13	Pavement Marking & Signing Plans		4			36						40
3.2.14	Landscaping Plans			8			32					40
3.2.15	Cross-Sections		4	12				40				56
3.2.16	Miscellaneous and Standard Details		4			16						20
3.2.17	Special Provisions	4		40								44
3.2.18	Quantity Calculations		12			32	32					76
3.2.19	Estimate of Cost and Construction Time	2	2		4		16					24
3.2.20	Site Visit (1 visit x 2 ppl. x 4 hrs.)		4			4						8
3.2.21	Disposition of Preliminary Plan Comments	4	5		18							27
3.3	***Pre-Final (95%) Roadway Plans - Total Project***											***382***
3.3.1	Cover Sheet		1		2							3
3.3.2	Index, General Notes, and Standards		1		4							5
3.3.3	Summary of Quantities	2						16				18
3.3.4	Quantity Schedules		2		24			24				50
3.3.5	Existing and Proposed Typical Sections		2			8						10
3.3.7	Alignment & Ties Sheet			1		2						3
3.3.8	Removal Plans		2	3				8				13
3.3.9	Plan & Profile (4 sheets)		16		8		16					40
3.3.10	ADA Details (8 ramps at 2 hours each)		2			14		6				22
3.3.11	Pavement Marking & Signing Plans		2		4	16						22
3.3.12	Landscaping Plans			4		8	8					20
3.3.13	Cross-Sections		4		14		8	20				46
3.3.14	Miscellaneous and Standard Details		2			16						18
3.3.15	Special Provisions	2	20									22
3.3.16	Quantity Calculations		4			16	24					44
3.3.17	Estimate of Cost and Construction Time	2	2				8					12
3.3.18	Plan-in-Hand Field Review (1 review x 4 ppl. x 5 hrs.)		5		5	5	5					20
3.3.19	Disposition of Pre-Final Plan Comments	2	6		6							14
3.4	***Final (100%) Roadway Plans - Total Project***											-
3.4.1	Final Plans											-
3.4.2	Final Special Provisions											-
3.4.3	Final Quantity Calculations											-

PATRICK MANHOUR ESTIMATE - INPUT

Project:
Client:
MANHOUR INPUT (by Phase, Task & Activity)

		$ 78.00	$ 64.40	$ 47.41	$ 44.57	$ 39.46	$ 32.75	$ 33.32	$ 46.64	$ 24.20	$ 29.80	**by Category):**
WBS	**Phase / Task / Activity Description**	**Input Proj Mgr (hrs)**	**Input Proj Eng 3/4 (hrs)**	**Input Proj Eng 1/2 (hrs)**	**Input Staff Eng 3 (hrs)**	**Input Staff Eng 2 (hrs)**	**Input Staff Eng 1 (hrs)**	**Input CADD (hrs)**	**Input Tech Spec (hrs)**	**Input Technic-ian (hrs)**	**Input Admin Assist (hrs)**	**Total (hrs)**
3.4.4	Final Estimate of Cost and Construction Time											-
3.4.5	Disposition of Final Plan Comments											-
3.5	***Pre-Final and Final Roadway Plans - Dry Land Bridge Contract***											***100***
3.5.1	Revise Plan Set to Remove Intersection	2	12		4	12		12				42
3.5.2	Remove Intersection Special Provisions	2	4									6
3.5.3	Revise Quantity Calculations		4				4					8
3.5.4	Revise Estimate of Cost and Construction Time		2				4					6
3.5.5	Address Pre-Final Plan Comments	2	4				8					14
3.5.6	Disposition of Pre-Final Plan Comments	2	2				4					8
3.5.7	Address Final Plan Comments	2	2				6					10
3.5.8	Disposition of Final Plan Comments	2	2				2					6
3.6	***Pre-Final and Final Roadway Plans - Intersection Contract***											***150***
3.6.1	Revise Plan Set to Remove Bridge	4	10		20	30		12				76
3.6.2	Remove Structural Special Provisions	2	6									8
3.6.3	Revise Quantity Calculations		4				8					12
3.6.4	Revise Estimate of Cost and Construction Time		2				6					8
3.6.5	Address Pre-Final Plan Comments	2	4				12					18
3.6.6	Disposition of Pre-Final Plan Comments	2	2				4					8
3.6.7	Address Final Plan Comments	2	4				8					14
3.6.8	Disposition of Final Plan Comments	2	2				2					6
4.0	***Construction Staging and Maintenance of Traffic***											***320***
4.1	***Task Management / QC***											***8***
4.1.1	Task Management / QC	8										8
4.2	***MOT Preliminary Plans - Total Project***											***164***
4.2.1	MOT Concept Plan		4		4	16						24
4.2.2	Preliminary MOT General Notes and Typical Sections		4		16	12						32
4.2.3	Preliminary MOT Plans		8		20	80						108
4.3	***MOT Pre-Final Plans - Total Project***											***50***
4.3.1	Pre-Final MOT General Notes and Typical Sections		2		8	8						18
4.3.2	Pre-Final MOT Plans		4		12	16						32
4.4	***MOT Final Plans - Total Project***											***-***
4.4.1	Final MOT Plans											-
4.5	***MOT Pre-Final Plans - Dry Land Bridge Contract***											***28***
4.5.1	Pre-Final MOT General Notes and Typical Sections		2		8							10
4.5.2	Pre-Final MOT Plans		4		6	8						18

PATRICK MANHOUR ESTIMATE - INPUT

Project:
Client:
MANHOUR INPUT (by Phase, Task & Activity)

		$ 78.00	$ 64.40	$ 47.41	$ 44.57	$ 39.46	$ 32.75	$ 33.32	$ 46.64	$ 24.20	$ 29.80	**by Category):**
WBS	**Phase / Task / Activity Description**	**Input Proj Mgr (hrs)**	**Input Proj Eng 3/4 (hrs)**	**Input Proj Eng 1/2 (hrs)**	**Input Staff Eng 3 (hrs)**	**Input Staff Eng 2 (hrs)**	**Input Staff Eng 1 (hrs)**	**Input CADD (hrs)**	**Input Tech Spec (hrs)**	**Input Technic-ian (hrs)**	**Input Admin Assist (hrs)**	**Total (hrs)**
4.6	***MOT Final Plans - Dry Land Bridge Contract***											***14***
4.6.1	Final MOT Plans		2		4	8						14
4.7	***MOT Pre-Final Plans - Intersection Contract***											***36***
4.7.1	Pre-Final MOT General Notes and Typical Sections		4		4	8						16
4.7.2	Pre-Final MOT Plans		6		6	8						20
4.8	***MOT Final Plans - Intersection Contract***											***20***
4.8.1	Final MOT Plans		4		8	8						20
5.0	***Drainage System Design / Erosion and Sediment Control***											***40***
5.1	***Task Management / QC***											***4***
5.1.1	Task Management / QC	4										4
5.2	***Drainage Plans - Dry Land Bridge Contract***											***6***
5.2.1	Review Preliminary Drainage Plans											-
5.2.2	Review Pre-Final Drainage Plans		1			2						3
5.2.3	Review Final Drainage Plans		1			2						3
5.3	***Drainage Plans - Intersection Contract***											***14***
5.3.1	Review Preliminary Drainage Plans											-
5.3.2	Review Pre-Final Drainage Plans		4			4						8
5.3.3	Review Final Drainage Plans		2			4						6
5.4	***Erosion Control Plans - Dry Land Bridge Contract***											***6***
5.4.1	Review Preliminary Erosion Control Plans											-
5.4.2	Review Pre-Final Erosion Control Plans		1			2						3
5.4.3	Review Final Erosion Control Plans		1			2						3
5.5	***Erosion Control Plans - Intersection Contract***											***10***
5.5.1	Review Preliminary Erosion Control Plans											-
5.5.2	Review Pre-Final Erosion Control Plans		2			4						6
5.5.3	Review Final Erosion Control Plans		2			2						4
6.0	***Traffic Signals and Lighting Plans***											***40***
6.1	***Task Management / QC***											***4***
6.1.1	Task Management / QC	4										4
6.2	***Preliminary Traffic Signal and Lighting Plans***											***16***
6.2.1	Review Preliminary Traffic Signal and Lighting Plans		8		8							16
6.3	***Pre-Final Traffic Signal and Lighting Plans***											***12***
6.3.1	Review Preliminary Traffic Signal and Lighting Plans		6		6							12
6.4	***Final Traffic Signal and Lighting Plans***											***8***
6.4.1	Review Final Traffic Signal and Lighting Plans		4		4							8

PATRICK MANHOUR ESTIMATE - INPUT

Project:

Client:

MANHOUR INPUT (by Phase, Task & Activity)

		$ 78.00	$ 64.40	$ 47.41	$ 44.57	$ 39.46	$ 32.75	$ 33.32	$ 46.64	$ 24.20	$ 29.80	**by Category):**
WBS	**Phase / Task / Activity Description**	**Input Proj Mgr (hrs)**	**Input Proj Eng 3/4 (hrs)**	**Input Proj Eng 1/2 (hrs)**	**Input Staff Eng 3 (hrs)**	**Input Staff Eng 2 (hrs)**	**Input Staff Eng 1 (hrs)**	**Input CADD (hrs)**	**Input Tech Spec (hrs)**	**Input Technic-ian (hrs)**	**Input Admin Assist (hrs)**	**Total (hrs)**
7.0	***Permitting***											***20***
7.1	***Task Management / QC***											***4***
7.1.1	Task Management / QC	4										4
7.2	***Permit Applications***											***16***
7.2.1	Permitting Coordination		4		4	8						16
8.0	***Right-of-Way and Plat of Highways***											***256***
8.1	***Task Management / QC***											***4***
8.1.1	Task Management / QC	4										4
8.2	***Plats & Legal Descriptions***											***252***
8.2.1	Recon and Survey Boundaries of Parent Parcels (11)				12		30					42
8.2.2	Appraisal Limits Survey Pickup						22					22
8.2.3	Boundary Analysis				42							42
8.2.4	Review Title Committments (11)				22							22
8.2.5	Draft Plats of Highways				82							82
8.2.6	Legal Descriptions				10							10
8.2.7	Plat Revisions and Resubmit						10					10
8.2.8	Printing and Sign and Seal				10							10
8.2.9	Stake ROW Corners				2		10					12
8.3	***Appraisals and Review Appraisals***											***-***
8.4	***Negotiation and Acquisition Services***											***-***
9.0	***Utility Coordination***											***16***
9.1	***Task Management / QC***											***8***
9.1.1	Task Management / QC	4	4									8
9.2	***Utility Coordination***											***8***
9.2.1	Utility Coordination		4			4						8
10.0	***Structural***											***1,140***
10.1	***Task Management / QC***											***10***
10.1.1	Task Management / QC	10										10
10.2	***Revised Type Size and Location (TS&L)***											***-***
10.2.1	TS&L Superstructure Design											-
10.2.2	TS&L Substructure Design											-
10.2.3	TS&L Geotechnical Review											-
10.2.4	TS&L CAD											-
10.3	***90% Structural Design***											***890***
10.3.1	90% Superstructure Design	50		60		80						190

PATRICK MANHOUR ESTIMATE - INPUT

Project:
Client:
MANHOUR INPUT (by Phase, Task & Activity)

		$ 78.00	$ 64.40	$ 47.41	$ 44.57	$ 39.46	$ 32.75	$ 33.32	$ 46.64	$ 24.20	$ 29.80	**by Category):**
WBS	**Phase / Task / Activity Description**	**Input Proj Mgr (hrs)**	**Input Proj Eng 3/4 (hrs)**	**Input Proj Eng 1/2 (hrs)**	**Input Staff Eng 3 (hrs)**	**Input Staff Eng 2 (hrs)**	**Input Staff Eng 1 (hrs)**	**Input CADD (hrs)**	**Input Tech Spec (hrs)**	**Input Technic-ian (hrs)**	**Input Admin Assist (hrs)**	**Total (hrs)**
10.3.2	90% Substructure Design	50		140		160						350
10.3.3	90% CAD							200				200
10.3.4	90% Quantities	20		30		60						110
10.3.5	90% Geotechnical Review	10		20		10						40
10.4	***100% Structural Design***											***240***
10.4.1	100% Structural Design	20		20		20						60
10.4.2	100% CAD							40				40
10.4.3	100% Special Provisions	20		20		10						50
10.4.4	100% Quantities	10		20		10						40
10.4.5	100% Load Rating	10		10		10						30
10.4.6	100% Comment Resolution	4		6		6		4				20
11.0	***Project Management, Coordination and Contract Administration***											***290***
11.1	***Project Management Plan***											***4***
11.1.1	Project Management Plan	4										4
11.2	***Project Management***											***144***
11.2.1	Management (24 months x 4 hrs./month)	48	48									96
11.2.2	Progress Reporting and Invoicing (24 months x 2 hrs./month)		24								24	48
11.3	***Village Meetings***											***24***
11.3.1	12 mtgs. x 2 ppl. x 1 hr.	12	12									24
11.4	***Agency Meetings (IDOT, Permitting Agencies)***											***32***
11.4.1	8 mtgs. x 2 ppl. x 2 hrs. (attend and summary)	16	16									32
11.5	***Property Owner Coordination***											***24***
11.5.1	6 mtgs. x 1 ppl. x 2 hrs. (attend and summary) + Misc Coord	12	12									24
11.6	***Developer Coordination***											***12***
11.6.1	Misc. Coordination, communications, submittals	4	8									12
11.7	***Grant Funding Assistance***											***40***
11.7.1	Research and Apply for Grant Funding (5 applications)	8	8	8		16						40
11.8	***Phase III RFQ***											***10***
11.8.1	Assist in Preparing Phase III RFQ	4	6									10
12.0	***Quality***											***80***
12.1	***Quality Management Plan***											***4***
12.1.1	Quality Management Plan	4										4
12.2	***Quality Assurance - Dry Land Bridge Contract***											***18***
12.2.1	Pre-Final Plans QA	4	4									8
12.2.2	Final Plans QA	2	2									4

PATRICK MANHOUR ESTIMATE - INPUT

Project:

Client:

MANHOUR INPUT (by Phase, Task & Activity)

		$ 78.00	$ 64.40	$ 47.41	$ 44.57	$ 39.46	$ 32.75	$ 33.32	$ 46.64	$ 24.20	$ 29.80	**by Category):**
WBS	**Phase / Task / Activity Description**	**Input Proj Mgr (hrs)**	**Input Proj Eng 3/4 (hrs)**	**Input Proj Eng 1/2 (hrs)**	**Input Staff Eng 3 (hrs)**	**Input Staff Eng 2 (hrs)**	**Input Staff Eng 1 (hrs)**	**Input CADD (hrs)**	**Input Tech Spec (hrs)**	**Input Technic-ian (hrs)**	**Input Admin Assist (hrs)**	**Total (hrs)**
12.2.3	Constructability Reviews			6								6
12.3	***Quality Assurance - Intersection Contract***											***38***
12.3.1	Pre-Final Plans QA	4	12									16
12.3.2	Final Plans QA	2	8									10
12.3.3	Constructability Reviews			12								12
12.4	***Quality Assurance - Combined Contract***											***20***
12.4.1	Preliminary Plans QA	4	6									10
12.4.2	Pre-Final Plans QA	2	4									6
12.4.3	Final Plans QA	2	2									4
13.0	***Phase III Coordination***											***120***
13.1	***Phase III Coordination - Dry Land Bridge Contract***											***54***
13.1.1	Bidding and Letting Support	2		4			4					10
13.1.2	RFI Responses	2	8				8					18
13.1.3	Shop Drawings	2	8				16					26
13.2	***Phase III Coordination - Intersection Contract***											***66***
13.2.1	Bidding and Letting Support	2		4			4					10
13.2.2	RFI Responses	2	14				20					36
13.2.3	Shop Drawings		4	16								20
										TOTAL HOURS:		**3,987**
		490	528	486	561	943	499	456	0	0	24	**3987** check
		12.3%	13.2%	12.2%	14.1%	23.7%	12.5%	11.4%	0.0%	0.0%	0.6%	**100.0%** check

MANHOUR ESTIMATE - INPUT

Project: **John Humphrey Drive at 143rd Street Phase II**
Client: **Village of Orland Park**
DIRECT EXPENSES (by Phase)

Labor Key	Type	Phase	Expense	Expense WBS	Phase Description	Expense Category	Expense Detail	Number of Units	Unit	Rate	Expense ($)	Total Direct Expense ($)
1	*Phase*	*1.0*	*0.0*	*1.0*	*Topographic Survey*							*$ 528*
	Expense	1.0	1.0	1.0.E1		Travel	Auto - Daily	4	days	$ 65.00	$ 228	$ 228
	Expense	1.0	1.0	1.0.E1		Reproduction	Reproduction (24x36)	300	pages	$ 1.00	$ 300	$ 300
8	*Phase*	*2.0*	*0.0*	*2.0*	*Geotechnical and Environmental Services*							*$ 78,020*
	Expense	2.0	1.0	2.0.E1		Travel	Auto - Daily	4	days	$ 65.00	$ 260	$ 260
	Expense	2.0	2.0	2.0.E2		Travel	Auto - Daily	4	days	$ 65.00	$ 260	$ 260
	Expense	2.0	3.0	2.0.E3		Direct Cost	Geotech Drilling and Lab	1	Unit	$ 43,750.00	$ 43,750	$ 43,750
	Expense	2.0	4.0	2.0.E4		Direct Cost	PSI Drilling and Lab	1	Unit	$ 33,750.00	$ 33,750	$ 33,750
25	*Phase*	*3.0*	*0.0*	*3.0*	*Roadway Design*							*$ 1,050*
	Expense	3.0	1.0	3.0.E1		Reproduction	Reproduction (11x17)	3000	pages	$ 0.25	$ 750	$ 750
	Expense	3.0	2.0	3.0.E2		Reproduction	Reproduction (8.5x11)	3000	pages	$ 0.10	$ 300	$ 300
91	*Phase*	*4.0*	*0.0*	*4.0*	*Construction Staging and Maintenance of Traffic*							*$ -*
	Expense	4.0	1.0	4.0.E1								
113	*Phase*	*5.0*	*0.0*	*5.0*	*Drainage System Design / Erosion and Sediment Co*							*$ -*
	Expense	5.0	1.0	5.0.E1								
132	*Phase*	*6.0*	*0.0*	*6.0*	*Traffic Signals and Lighting Plans*							*$ -*
	Expense	6.0	1.0	6.0.E1								
141	*Phase*	*7.0*	*0.0*	*7.0*	*Permitting*							*$ -*
	Expense	7.0	1.0	7.0.E1								
146	*Phase*	*8.0*	*0.0*	*8.0*	*Right-of-Way and Plat of Highways*							*$ 7,485*
	Expense	8.0	1.0	8.0.E1	Title Committments Regular Parcel			10	Parcels	$ 690.00	$ 6,900	$ 6,900
	Expense	8.0	2.0	8.0.E2	Vehicles			9	Days	$ 65.00	$ 585	$ 585
161	*Phase*	*9.0*	*0.0*	*9.0*	*Utility Coordination*							*$ -*
	Expense	9.0	1.0	9.0.E1								
166	*Phase*	*10.0*	*0.0*	*10.0*	*Structural*							*$ -*
	Expense	10.0	1.0	10.0.E1		Travel						
187	*Phase*	*11.0*	*0.0*	*11.0*	*Project Management, Coordination and Contract Ac*							*$ 2,130*
	Expense	11.0	1.0	11.0.E1		Reproduction	Reproduction (8.5x11)	500	pages	$ 0.10	$ 50	$ 50
	Expense	11.0	2.0	11.0.E2		Travel	Auto - Daily	32	days	$ 65.00	$ 2,080	$ 2,080
205	*Phase*	*12.0*	*0.0*	*12.0*	*Quality*							*$ 250*
	Expense	12.0	1.0	12.0.E1		Reproduction	Reproduction (11x17)	1000	pages	$ 0.25	$ 250	$ 250
220	*Phase*	*13.0*	*0.0*	*13.0*	*Phase III Coordination*							*$ 260*
	Expense	13.0	1.0	13.0.E1		Travel	Auto - Daily	4	days	$ 65.00	$ 260	$ 260
Total											Total:	$ 89,723

Christopher B. Burke Engineering, Ltd.

Illinois Department of Transportation

EXHIBIT E

COST ESTIMATE OF CONSULTANT SERVICES WORKSHEET

FIXED RAISE

Local Public Agency	County	Section Number
Village of Orland Park	Cook	16-0078-00-CH

Consultant (Firm) Name	Prepared By	Date
Christopher B. Burke Engineering, Ltd.	Miro Antas	9/27/2021

PAYROLL ESCALATION TABLE

CONTRACT TERM	24	MONTHS	OVERHEAD RATE	132.36%
START DATE	11/1/2021		COMPLEXITY FACTOR	
RAISE DATE	1/1/2022		% OF RAISE	2.00%
END DATE	10/31/2023			

ESCALATION PER YEAR

Year	First Date	Last Date	Months	% of Contract
0	11/1/2021	1/1/2022	2	8.33%
1	1/2/2022	1/1/2023	12	51.00%
2	1/2/2023	11/1/2023	10	43.35%

The total escalation = 2.68%

Local Public Agency	County	Section Number
Village of Orland Park	Cook	16-0078-00-CH

MAXIMUM PAYROLL RATE	**78.00**
ESCALATION FACTOR	**2.68%**

PAYROLL RATES

Exhibit E Cost Estimate of Consultant Services Worksheet Fixed Raise

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Principal	$78.00	$78.00
Engineer VI	$77.50	$78.00
Engineer V	$67.99	$69.81
Engineer IV	$56.58	$58.10
Engineer III	$46.52	$47.77
Engineer I/II	$33.22	$34.11
Survey V	$77.50	$78.00
Survey IV	$69.00	$70.85
Survey III	$61.00	$62.64
Survey II	$50.00	$51.34
Survey I	$37.33	$38.33
Engineering Technician V	$65.75	$67.51
Engineering Technician IV	$54.38	$55.84
Engineering Technician III	$31.13	$31.97
Engineering Technician I/II	$24.00	$24.64
CAD Manager	$65.17	$66.92
CAD Technician II	$47.67	$48.95
GIS Speciailist III	$52.50	$53.91
GIS Speciailist I/II	$35.00	$35.94
Landscape Architect	$59.25	$60.84
Landscape Designer I/II	$33.00	$33.89
Environmental Resource Specialist V	$73.00	$74.96
Environmental Resource Specialist IV	$55.56	$57.05
Environmental Resource Specialist II	$48.50	$49.80
Environmental Resource Specialist I/	$29.00	$29.78
Environmental Resource Technician	$41.50	$42.61
Engineering Itern	$15.71	$16.13

Local Public Agency	County	Section Number
Village of Orland Park	Cook	16-0078-00-CH

SUBCONSULTANTS

Exhibit E Cost Estimate of Consultant Services Worksheet Fixed Raise

NAME	Direct Labor Total	Contribution to Prime Consultant
Total	**0.00**	**0.00**

Local Public Agency	County	Section Number
Village of Orland Park	Cook	16-0078-00-CH

COST ESTIMATE WORKSHEET

Exhibit E Cost Estimate of Consultant Services Worksheet Fixed Raise

OVERHEAD RATE 132.36% **COMPLEXITY FACTOR** 0

TASK	STAFF HOURS	PAYROLL	OVERHEAD & FRINGE BENEFITS	DIRECT COSTS	FIXED FEE	SERVICES BY OTHERS	TOTAL	% OF GRAND TOTAL
Drainage	244	12,714	16,829		4,196		33,739	18.20%
Erosion Control & Temp Drainage	115	6,482	8,579		2,139		17,200	9.28%
Traffic	176	9,866	13,058		3,256		26,180	14.12%
Lighting	253	11,806	15,626		3,896		31,328	16.90%
Environmental & Permits	175	11,751	15,554	9,000	3,878		40,183	21.68%
Utlities	120	5,599	7,411		1,848		14,858	8.02%
QA/QC	36	2,513	3,327		829		6,669	3.60%
Administrative / Management	40	1,892	2,504		624		5,020	2.71%
Phase III Support	60	3,837	5,079		1,266		10,182	5.49%
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
Subconsultant DL					0		-	
TOTALS	1219	66,460	87,967	9,000	21,932	-	185,359	100.00%
		154,427						

Local Public Agency
Village of Orland Park

County
Cook

Section Number
16-0078-00-CH

AVERAGE HOURLY PROJECT RATES

Exhibit E Cost Estimate of Consultants Services Worksheet Fixed Raise

SHEET 1 OF 2

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			Drainage			Erosion Control & Temp Drainage			Traffic			Lighting			Environmental & Permits		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	78.00	0.0																	
Engineer VI	78.00	21.0	1.72%	1.34							21	11.93%	9.31						
Engineer V	69.81	94.0	7.71%	5.38	21	8.61%	6.01	7	6.09%	4.25									
Engineer IV	58.10	268.0	21.99%	12.77	8	3.28%	1.90	14	12.17%	7.07	70	39.77%	23.11	84	33.20%	19.29			
Engineer III	47.77	241.0	19.77%	9.44	58	23.77%	11.35	58	50.43%	24.09				85	33.60%	16.05			
Engineer I/II	34.11	218.0	17.88%	6.10	76	31.15%	10.62							84	33.20%	11.33			
Survey V	78.00	0.0																	
Survey IV	70.85	0.0																	
Survey III	62.64	0.0																	
Survey II	51.34	0.0																	
Survey I	38.33	0.0																	
Engineering Technician V	67.51	0.0																	
Engineering Technician IV	55.84	0.0																	
Engineering Technician III	31.97	0.0																	
Engineering Technician I/II	24.64	0.0																	
CAD Manager	66.92	117.0	9.60%	6.42	81	33.20%	22.21	36	31.30%	20.95									
CAD Technician II	48.95	85.0	6.97%	3.41							85	48.30%	23.64						
GIS Speciailist III	53.91	0.0																	
GIS Speciailist I/II	35.94	0.0																	
Landscape Architect	60.84	0.0																	
Landscape Designer I/II	33.89	0.0																	
Environmental Resource Specialist V	74.96	112.0	9.19%	6.89													112	64.00%	47.97
Environmental Resource Specialist IV	57.05	43.0	3.53%	2.01													43	24.57%	14.02
Environmental Resource Specialist III	49.80	7.0	0.57%	0.29													7	4.00%	1.99
Environmental Resource Specialist I/II	29.78	0.0																	
Environmental Resource Technician	42.61	13.0	1.07%	0.45													13	7.43%	3.17
Engineering Itern	16.13	0.0																	
TOTALS		1219.0	100%	$54.52	244.0	100.00%	$52.11	115.0	100%	$56.36	176.0	100%	$56.05	253.0	100%	$46.66	175.0	100%	$67.15

Local Public Agency	County	Section Number
Village of Orland Park	Cook	16-0078-00-CH

AVERAGE HOURLY PROJECT RATES

Exhibit E Cost Estimate of Consultant Services Worksheet Fixed Raise

SHEET 2 OF 2

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Utlities			QA/QC			Administrative / Management			Phase III Support								
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	78.00																		
Engineer VI	78.00																		
Engineer V	69.81				36	100.00%	69.81				30	50.00%	34.91						
Engineer IV	58.10	40	33.33%	19.37				22	55.00%	31.95	30	50.00%	29.05						
Engineer III	47.77	40	33.33%	15.92															
Engineer I/II	34.11	40	33.33%	11.37				18	45.00%	15.35									
Survey V	78.00																		
Survey IV	70.85																		
Survey III	62.64																		
Survey II	51.34																		
Survey I	38.33																		
Engineering Technician V	67.51																		
Engineering Technician IV	55.84																		
Engineering Technician III	31.97																		
Engineering Technician I/II	24.64																		
CAD Manager	66.92																		
CAD Technician II	48.95																		
GIS Speciailist III	53.91																		
GIS Speciailist I/II	35.94																		
Landscape Architect	60.84																		
Landscape Designer I/II	33.89																		
Environmental Resource Specialist	74.96																		
Environmental Resource Specialist	57.05																		
Environmental Resource Specialist	49.80																		
Environmental Resource Specialist	29.78																		
Environmental Resource Technician	42.61																		
Engineering Itern	16.13																		
TOTALS		120.0	100%	$46.66	36.0	100%	$69.81	40.0	100%	$47.30	60.0	100%	$63.96	0.0	0%	$0.00	0.0	0%	$0.00

Illinois Department of Transportation

Direct Costs Check Sheet

COMPANY NAME: **Christopher B. Burke Engineering, Ltd.**

PTB NUMBER:

TODAY'S DATE: **9/27/2021**

ITEM	ALLOWABLE	UTILIZE W.O. ONLY	QUANTITY J.S. ONLY	CONTRACT RATE	TOTAL
Per Diem (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum			$0.00	$0.00
Lodging (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost (Up to state rate maximum)			$0.00	$0.00
Lodging Taxes and Fees (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost			$0.00	$0.00
Air Fare	Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval			$0.00	$0.00
Vehicle Mileage (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum			$0.000	$0.00
Vehicle Owned or Leased	$32.50/half day (4 hours or less) or $65/full day			$0.00	$0.00
Vehicle Rental	Actual cost (Up to $55/day)			$0.00	$0.00
Tolls	Actual cost			$0.00	$0.00
Parking	Actual cost			$0.00	$0.00
Overtime	Premium portion (Submit supporting documentation)			$0.00	$0.00
Shift Differential	Actual cost (Based on firm's policy)			$0.00	$0.00
Overnight Delivery/Postage/Courier Service	Actual cost (Submit supporting documentation)			$0.00	$0.00
Copies of Deliverables/Mylars (In-house)	Actual cost (Submit supporting documentation)			$0.00	$0.00
Copies of Deliverables/Mylars (Outside)	Actual cost (Submit supporting documentation)			$0.00	$0.00
Project Specific Insurance	Actual cost			$0.00	$0.00
Monuments (Permanent)	Actual cost			$0.00	$0.00
Photo Processing	Actual cost			$0.00	$0.00
2-Way Radio (Survey or Phase III Only)	Actual cost			$0.00	$0.00
Telephone Usage (Traffic System Monitoring Only)	Actual cost			$0.00	$0.00
CADD	Actual cost (Max $15/hour)			$0.00	$0.00
Web Site	Actual cost (Submit supporting documentation)			$0.00	$0.00
Advertisements	Actual cost (Submit supporting documentation)			$0.00	$0.00
Public Meeting Facility Rental	Actual cost (Submit supporting documentation)			$0.00	$0.00
Public Meeting Exhibits/Renderings & Equipment	Actual cost (Submit supporting documentation)			$0.00	$0.00
Recording Fees	Actual cost			$0.00	$0.00
Transcriptions (specific to project)	Actual cost			$0.00	$0.00
Courthouse Fees	Actual cost			$0.00	$0.00
Storm Sewer Cleaning and Televising	Actual cost (Requires 2-3 quotes with IDOT approval)			$0.00	$0.00
Traffic Control and Protection	Actual cost (Requires 2-3 quotes with IDOT approval)			$0.00	$0.00
Aerial Photography and Mapping	Actual cost (Requires 2-3 quotes with IDOT approval)			$0.00	$0.00
Utility Exploratory Trenching	Actual cost (Requires 2-3 quotes with IDOT approval)			$0.00	$0.00
Testing of Soil Samples*	Actual cost			$0.00	$0.00
Lab Services*	Actual cost (Provide breakdown of each cost)			$0.00	$0.00
Equipment and/or Specialized Equipment Rental*	Actual cost (Requires 2-3 quotes with IDOT approval)			$0.00	$0.00
Reginal Permit Application (USACE & SWCD)	Actual cost			$0.00	$7,500.00
Stormwater Pollution Prevention Plan	Actual cost (750ea, x 2 contracts)			$0.00	$1,500.00
				$0.00	$0.00
				$0.00	$0.00
				$0.00	$0.00
				$0.00	$0.00
				$0.00	$0.00
				$0.00	$0.00
				$0.00	$0.00
				$0.00	$0.00
TOTAL DIRECT COST					**$9,000.00**

**If other allowable costs are needed and not listed, please add in the above spaces provided.*

LEGEND

W.O. = Work Order

ROW Acquisitions

Cebulski, Jarrod

From: Right of Way Acquisitions <quickbooks@notification.intuit.com>
Sent: Wednesday, October 20, 2021 5:31 PM
To: Cebulski, Jarrod
Subject: [EXTERNAL_EMAIL]-Estimate 1001 from Right of Way Acquisitions
Attachments: breakdown of fees.xlsx

Mr. Cebulski,

Please review the estimate below. Feel free to contact us if you have any questions.
We look forward to working with you.

Thanks for your business!
Right of Way Acquisitions

---------- Estimate ----------

1000 W Washington Blvd
Chicago, IL 60607 US

Estimate #: 1001
Date: 10/20/2021
Exp. Date:
  $47,000.00

Address:

Mr. Jarrod Cebulski
Patrick Engineering
4970 Varsity Drive
Lisle, IL 60532 USA

Service	Description	Quantity	Rate	Amount
Appraisals	Please refer to attached Breakdown of Fees	1	15,800.00	15,800.00
Review App	Please refer to attached Breakdown of Fees	1	6,900.00	6,900.00
Specialty	Please refer to attached Breakdown of Fees	1	1,800.00	1,800.00
Negotiatio		9	2,500.00	22,500.00
		Total:		$47,000.00