Illinois Department of Transportation

Local Public Agency
Engineering Services Agreement

Using Federal Funds? ☒ Yes ☐ No

Agreement For: Federal PE

Agreement Type: Original

LOCAL PUBLIC AGENCY

Local Public Agency	County	Section Number	Job Number
County of McHenry	McHenry	18-00482-00-BR	D-91-001-19

Project Number	Contact Name	Phone Number	Email
8M8X(096)	Ms. Samantha Dittrich, P.E.	(815) 334-4645	sldittrich@mchenrycountyil.gov

SECTION PROVISIONS

Local Street/Road Name	Key Route	Length	Structure Number
Millstream Road	CH T64	1,750	EX. 056-3022 / EX. 056-3023

Location Termini: 400 ft south of the south bridge and 400 ft north of the north bridge (Sta. 230+50 to Sta. 248+00)

Add Location | Remove Location

Project Description: Phase II design engineering of the plan preparation and contract documents for the replacement of the bridges carrying Millstream Road over the Kishwaukee River and the South Branch Kishwaukee River.

Engineering Funding: ☒ Federal ☐ MFT/TBP ☐ State ☐ Other

Anticipated Construction Funding: ☒ Federal ☐ MFT/TBP ☐ State ☐ Other

AGREEMENT FOR

☐ Phase I - Preliminary Engineering ☒ Phase II - Design Engineering

CONSULTANT

Consultant (Firm) Name	Contact Name	Phone Number	Email
BLA, Inc	Matthew Cesario, PE	(630) 438-6400	mcesario@bla-inc.com

Address	City	State	Zip Code
333 Pierce Road, Suite 200	Itasca	IL	60143

THIS AGREEMENT IS MADE between the above Local Public Agency (LPA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the improvement of the above SECTION. Project funding allotted to the LPA by the State of Illinois under the general supervision of the State Department of Transportation, hereinafter called the "DEPARTMENT," will be used entirely or in part to finance ENGINEERING services as described under AGREEMENT PROVISIONS.

Since the services contemplated under the AGREEMENT are professional in nature, it is understood that the ENGINEER, acting as an individual, partnership, firm or legal entity, qualifies for professional status and will be governed by professional ethics in its relationship to the LPA and the DEPARTMENT. The LPA acknowledges the professional and ethical status of the ENGINEER by entering into an AGREEMENT on the basis of its qualifications and experience and determining its compensation by mutually satisfactory negotiations.

WHEREVER IN THIS AGREEMENT or attached exhibits the following terms are used, they shall be interpreted to mean:

Regional Engineer	Deputy Director, Office of Highways Project Implementation, Regional Engineer, Department of Transportation
Resident Construction Supervisor	Authorized representative of the LPA in immediate charge of the engineering details of the construction PROJECT
In Responsible Charge	A full time LPA employee authorized to administer inherently governmental PROJECT activities
Contractor	Company or Companies to which the construction contract was awarded

AGREEMENT EXHIBITS

The following EXHIBITS are attached hereto and made a part of hereof this AGREEMENT:

☒ EXHIBIT A: Scope of Services

☒ EXHIBIT B: Project Schedule

☒ EXHIBIT C: Direct Costs Check Sheet

☒ EXHIBIT D: Qualification Based Selection (QBS) Checklist

☒ EXHIBIT E: Cost Plus Fixed Fee Cost Estimate of Consultant Services Worksheet (BLR 05513 or BLR 05514)

☒ Exhibit F: Workhour Summary

☒ Exhibit G: Subconsultant CECS and Direct Cost

☒ Exhibit H: Quality Assurance / Quality Control Plan

I. THE ENGINEER AGREES,

1. To perform or be responsible for the performance of the Scope of Services presented in EXHIBIT A for the LPA in connection with the proposed improvements herein before described.
2. The Classifications of the employees used in the work shall be consistent with the employee classifications and estimated staff hours. If higher-salaried personnel of the firm, including the Principal Engineer, perform services that are to be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the payroll rate for the work performed.
3. That the ENGINEER shall be responsible for the accuracy of the work and shall promptly make necessary revisions or corrections required as a result of the ENGINEER'S error, omissions or negligent acts without additional compensation. Acceptance of work by the LPA or DEPARTMENT will not relieve the ENGINEER of the responsibility to make subsequent correction of any such errors or omissions or the responsibility for clarifying ambiguities.
4. That the ENGINEER will comply with applicable Federal laws and regulations, State of Illinois Statutes, and the local laws or ordinances of the LPA.
5. To pay its subconsultants for satisfactory performance no later than 30 days from receipt of each payment from the LPA.
6. To invoice the LPA for Preliminary and/or Design Engineering: The ENGINEER shall submit all invoices to the LPA within three months of the completion of the work called for in the AGREEMENT or any subsequent Amendment or Supplement.
7. To submit a completed BLR 05613, Engineering Payment Report, to the DEPARTMENT within three months of the completion of the work called for in this AGREEMENT or any subsequent Amendment or Supplement. The form shall be submitted with the final invoice.
8. The ENGINEER or subconsultant shall not discriminate on the basis of race, color, national origin or sex in the performance of this AGREEMENT. The ENGINEER shall carry out applicable requirements of 49 CFR part 26 in the administration of United States Department of Transportation (US DOT) assisted contract. Failure by the Engineer to carry out these requirements is a material breach of this AGREEMENT, which may result in the termination of this AGREEMENT or such other remedy as the LPA deems appropriate.
9. That none of the services to be furnished by the ENGINEER shall be sublet assigned or transferred to any other party or parties without written consent of the LPA. The consent to sublet, assign or otherwise transfer any portion of the services to be furnished by the ENGINEER shall be construed to relieve the ENGINEER of any responsibility for the fulfillment of this AGREEMENT.
10. For Preliminary Engineering Contracts:
    (a) To attend meetings and visit the site of the proposed improvement when requested to do so by representatives of the LPA or the DEPARTMENT, as defined in Exhibit A (Scope of Services).
    (b) That all plans and other documents furnished by the ENGINEER pursuant to the AGREEMENT will be endorsed by the ENGINEER and affix the ENGINEER's professional seal when such seal is required by law. Such endorsements must be made by a person, duly licensed or registered in the appropriate category by the Department of Professional Regulation of the State of Illinois. It will be the ENGINEER's responsibility to affix the proper seal as required by the Bureau of Local Roads and Streets manual published by the DEPARTMENT.
    (c) That the ENGINEER is qualified technically and is thoroughly conversant with the design standards and policies applicable for the PROJECT; and that the ENGINEER has sufficient properly trained, organized and experienced personnel to perform the services enumerated in Exhibit A (Scope of Services).
11. That the engineering services shall include all equipment, instruments, supplies, transportation and personnel required to perform the duties of the ENGINEER in connection with this AGREEMENT (See Exhibit C).

II. THE LPA AGREES,

1. To certify by execution of this AGREEMENT that the selection of the ENGINEER was performed in accordance with the following:
    (a) Professional Services Selection Act (50 ILCS 510), The Brooks Act (40 USC 11), and the Procurement, Management, and Administration of Engineering, and Design Related Services (23 CFR part 172). Exhibit D is required to be completed with this AGREEMENT.
2. To furnish the ENGINEER all presently available survey data, plans, specifications, and project information.

3. To pay the ENGINEER:
   (a) For progressive payments - Upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LPA, monthly payments for the work performed shall be due and payable to the ENGINEER, such payments to be equal to the value of the partially completed work minus all previous partial payments made to the ENGINEER.
   (b) Final payment - Upon approval of the work by the LPA but not later than 60 days after the work is completed and reports have been made and accepted by the LPA and DEPARTMENT a sum of money equal to the basic fee as determined in this AGREEMENT less the total of the amount of partial payments previously paid to the ENGINEER shall be due and payable to the ENGINEER.
4. To pay the ENGINEER as compensation for all services rendered in accordance with the AGREEMENT on the basis of the following compensation method as discussed in 5-5.10 of the BLR Manual.

   Method of Compensation:
   ☐ Lump Sum

   ☐ Specific Rate

   ☒ Cost plus Fixed Fee: Anniversary

   Total Compensation = DL + DC + OH + FF

   Where:

   DL is the total Direct Labor,
   DC is the total Direct Cost,
   OH is the firm's overhead rate applied to their DL and
   FF is the Fixed Fee.

   Where FF = (0.33 + R) DL + %SubDL, where R is the advertised Complexity Factor and %SubDL is 10% profit allowed on the direct labor of the subconsultants.

   The Fixed Fee cannot exceed 15% of the DL + OH.
5. The recipient shall not discriminate on the basis of race, color, national original or sex in the award and performance of any US DOT assisted contract or in the administration of its DBE program or the requirements of 49 CFR part 26. The recipient shall take all necessary and reasonable steps under 49 CFR part 26 to ensure nondiscrimination in the award and administration of US DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR part 26 and as approved by US DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as violation of this AGREEMENT. Upon notification to the recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C 3801 et seq.).
6. To certify by execution of the AGREEMENT that the selection of the ENGINEER was performed in accordance with the Local Government Professional Services Selection Act 50 ILCS 510, the Brooks Act 40 USC 11, and Procurement, Management, and Administration of Engineering and Design related Services (23 CRF part 172). Exhibit C is required to be completed with this agreement.

III. IT IS MUTUALLY AGREED,

1. No work shall be commenced by the ENGINEER prior to issuance by the IDOT of a written Notice to Proceed.
2. To maintain, for a minimum of 3 years after the completion of the contract, adequate books, records and supporting documents to verify the amount, recipients and uses of all disbursements of funds passing in conjunction with the contract; the contract and all books, records and supporting documents related to the contract shall be available for review and audit by the Auditor General, and the DEPARTMENT: the Federal Highways Administration (FHWA) or any authorized representative of the federal government, and to provide full access to all relevant materials. Failure to maintain the books, records and supporting documents required by this section shall establish a presumption in favor of the DEPARTMENT for the recovery of any funds paid by the DEPARTMENT under the contract for which adequate books, records and supporting documentation are not available to support their purported disbursement.
3. That the ENGINEER shall be responsible for any and all damages to property or persons arising out of an error, omission and/or negligent act in the prosecution of the ENGINEER's work and shall indemnify and save harmless the LPA, the DEPARMTENT, and their officers, agents, and employees from all suits, claims, actions or damage liabilities, costs or damages of any nature whatsoever resulting there from. These indemnities shall not be limited by the listing of any insurance policy.

   The LPA will notify the ENGINEER of any error or omission believed by the LPA to be caused by the negligence of the ENGINEER as soon as practicable after the discovery. The LPA reserves the right to take immediate action to remedy any error or omission if notification is not successful; if the ENGINEER fails to reply to a notification; or if the conditions created by the error or omission are in need of urgent correction to avoid accumulation of additional construction costs or damages to property and reasonable notice is not practicable.
4. This AGREEMENT may be terminated by the LPA upon giving notice in writing to the ENGINEER at the ENGINEER's last known post office address. Upon such termination, the ENGINEER shall cause to be delivered to the LPA all drawings, plats, surveys, reports, permits, agreements, soils and foundation analysis, provisions, specifications, partial and completed estimates and data, if any from soil survey and subsurface investigation with the understanding that all such material becomes the property of the LPA. The LPA will be responsible for reimbursement of all eligible expenses incurred under the terms of this AGREEMENT up to the date of the written notice of termination.
5. In the event that the DEPARMENT stops payment to the LPA, the LPA may suspend work on the project. If this agreement is suspended by the LPA for more than thirty (30) calendar days, consecutive or in aggregate, over the term of this

AGREEMENT, the ENGINEER shall be compensated for all services performed and reimbursable expenses incurred as a result of the suspension and resumption of its services, and the ENGINEER's schedule and fees for the remainder of the project shall be equitably adjusted.

6. This AGREEMENT shall continue as an open contract and the obligations created herein shall remain in full force and effect until the completion of construction of any phase of professional services performed by others based upon the service provided herein. All obligations of the ENGINEER accepted under this AGREEMENT shall cease if construction or subsequent professional services are not commenced within 5 years after final payment by the LPA.

7. That the ENGINEER shall be responsible for any and all damages to property or persons arising out of an error, omission and/or negligent act in the prosecution of the ENGINEER's work and shall indemnify and have harmless the LPA, the DEPARTMENT, and their officers, employees from all suits, claims, actions or damages liabilities, costs or damages of any nature whatsoever resulting there from. These indemnities shall not be limited by the listing of any insurance policy.

8. The ENGINEER and LPA certify that their respective firm or agency:

   (a) has not employed or retained for commission, percentage, brokerage, contingent fee or other considerations, any firm or person (other than a bona fide employee working solely for the LPA or the ENGINEER) to solicit or secure this AGREEMENT,
   (b) has not agreed, as an express or implied condition for obtaining this AGREEMENT, to employ or retain the services of any firm or person in connection with carrying out the AGREEMENT or
   (c) has not paid, or agreed to pay any firm, organization or person (other than a bona fide employee working solely for the LPA or the ENGINEER) any fee, contribution, donation or consideration of any kind for, or in connection with, procuring or carrying out the AGREEMENT.
   (d) that neither the ENGINEER nor the LPA is/are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency,
   (e) has not within a three-year period preceding the AGREEMENT been convicted of or had a civil judgment rendered against them for commission of fraud or criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or local) transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property,
   (f) are not presently indicated for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph e and
   (g) has not within a three-year period preceding this AGREEMENT had one or more public transaction (Federal, State or local) terminated for cause or default.

   Where the ENGINEER or LPA is unable to certify to any of the above statements in this certification, an explanation shall be attached to this AGREEMENT.

9. In the event of delays due to unforeseeable causes beyond the control of and without fault or negligence of the ENGINEER no claim for damages shall be made by either party. Termination of the AGREEMENT or adjustment of the fee for the remaining services may be requested by either party if the overall delay from the unforeseen causes prevents completion of the work within six months after the specified completion date. Examples of unforeseen causes include but are not limited to: acts of God or a public enemy; act of the LPA, DEPARTMENT, or other approving party not resulting from the ENGINEER's unacceptable services; fire; strikes; and floods.

   If delays occur due to any cause preventing compliance with the PROJECT SCHEDULE, the ENGINEER shall apply in writing to the LPA for an extension of time. If approved, the PROJECT SCHEDULE shall be revised accordingly.

10. This certification is required by the Drug Free Workplace Act (30 ILCS 580). The Drug Free Workplace Act requires that no grantee or contractor shall receive a grant or be considered for the purpose of being awarded a contract for the procurement of any property or service from the DEPARTMENT unless that grantee or contractor will provide a drug free workplace. False certification or violation of the certification may result in sanctions including, but not limited to suspension of contract on grant payments, termination of a contract or grant and debarment of the contracting or grant opportunities with the DEPARTMENT for at least one (1) year but not more than (5) years.

    For the purpose of this certification, "grantee" or "Contractor" means a corporation, partnership or an entity with twenty-five (25) or more employees at the time of issuing the grant or a department, division or other unit thereof, directly responsible for the specific performance under contract or grant of $5,000 or more from the DEPARTMENT, as defined the Act.

    The contractor/grantee certifies and agrees that it will provide a drug free workplace by:

    (a) Publishing a statement:

        (1) Notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance, including cannabis, is prohibited in the grantee's or contractor's workplace.

        (2) Specifying actions that will be taken against employees for violations of such prohibition.

        (3) Notifying the employee that, as a condition of employment on such contract or grant, the employee will:
            (a) abide by the terms of the statement; and
            (b) notify the employer of any criminal drug statue conviction for a violation occurring int he workplace no later than (5) days after such conviction.

    (b) Establishing a drug free awareness program to inform employees about:

        (1) The dangers of drug abuse in the workplace;
        (2) The grantee's or contractor's policy of maintain a drug free workplace;

(3) Any available drug counseling, rehabilitation and employee assistance program; and
(4) The penalties that may be imposed upon an employee for drug violations.

(c) Providing a copy of the statement required by subparagraph (a) to each employee engaged in the performance of the contract or grant and to post the statement in a prominent place in the workplace.

(d) Notifying the contracting, or granting agency within ten (10) days after receiving notice under part (b) of paragraph (3) of subsection (a) above from an employee or otherwise, receiving actual notice of such conviction.

(e) Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program.

(f) Assisting employees in selecting a course of action in the event drug counseling, treatment and rehabilitation is required and indicating that a trained referral team is in place.

Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act, the ENGINEER, LPA and the Department agree to meet the PROJECT SCHEDULE outlined in EXHIBIT B. Time is of the essence on this project and the ENGINEER's ability to meet the PROJECT SCHEDULE will be a factor in the LPA selecting the ENGINEER for future project. The ENGINEER will submit progress reports with each invoice showing work that was completed during the last reporting period and work they expect to accomplish during the following period.

11. Due to the physical location of the project, certain work classifications may be subject to the Prevailing Wage Act (820 ILCS 130/0.01 et seq.).

12. For Preliminary Engineering Contracts:

(a) That tracing, plans, specifications, estimates, maps and other documents prepared by the ENGINEER in accordance with this AGREEMENT shall be delivered to and become the property of the LPA and that basic survey notes, sketches, charts, CADD files, related electronic files, and other data prepared or obtained in accordance with this AGREEMENT shall be made available, upon request to the LPA or to the DEPARTMENT, without restriction or limitation as to their use. Any re-use of these documents without the ENGINEER involvement shall be at the LPA's sole risk and will not impose liability upon the ENGINEER.

(b) That all reports, plans, estimates and special provisions furnished by the ENGINEER shall conform to the current Standard Specifications for Road and Bridge Construction, Bureau of Local Roads and Streets Manual or any other applicable requirements of the DEPARTMENT, it being understood that all such furnished documents shall be approved by the LPA and the DEPARTMENT before final acceptance. During the performance of the engineering services herein provided for, the ENGINEER shall be responsible for any loss or damage to the documents herein enumerated while they are in the ENGINEER's possession and any such loss or damage shall be restored at the ENGINEER's expense.

AGREEMENT SUMMARY

Prime Consultant	TIN/FEIN/SS Number	Agreement Amount
BLA, Inc	36-4263432	$633,143.00

Subconsultants	TIN/FEIN/SS Number	Agreement Amount
- Jorgensen & Associates, Inc	36-3668574	$53,121.00
- Soil and Material Consultants, Inc	36-3094075	$34,640.00
-		
	Subconsultant Total	$87,761.00
	Prime Consultant Total	$633,143.00
	Total for all work	$720,904.00

Add Subconsultants

AGREEMENT SIGNATURES

Executed by the LPA:

Attest: The Local Public Agency Type: County of Name of Local Public Agency: McHenry

By (Signature & Date)	By (Signature & Date)
Name of Local Public Agency: McHenry Local Public Agency Type: County Clerk	Title: County Board Chariman

(SEAL)

Executed by the ENGINEER:

Attest: Consultant (Firm) Name: BLA, Inc

By (Signature & Date)	By (Signature & Date)
Title: CEO / President	Title: Vice President

Local Public Agency	County	Section Number
County of McHenry	McHenry	18-00482-00-BR

FOR FEDERAL PARTICIPATION PROJECTS

EXHIBIT A
SCOPE OF SERVICES

To perform or be responsible for the performance of the engineering services for the LPA, in connection with the PROJECT herein before described and enumerated below

See Attached Exhibit A

Exhibit A

Scope of Services

CONSULTING ENGINEERS

BLA, Inc.
333 Pierce Road, Suite 200 • Itasca, IL 60143
630 438 6400 • FAX 630 438 6444 • www.bla-inc.com

Route	CH T64 – Millstream Road over Kishwaukee River / South Branch Kishwaukee River
Local Agency	County of McHenry
Section	18-00482-00-BR
Job No.	D-91-001-19
Project No.	8M8X(096)
Type of Funding	STP-Bridge
Exist/Prop. Structure No.	056-3022/056-4022 (North); 056-3023/056-4023 (South)

PHASE II ENGINEERING FOR THE REPLACEMENT OF THE
MILLSTREAM ROAD BRIDGE OVER KISHWAUKEE RIVER & SOUTH BRANCH KISHWAUKEE RIVER
PROPOSED S.N. 056-4022 AND S.N. 056-4023

MCHENRY COUNTY DIVISION OF TRANSPORTATION

EXHIBIT A - SCOPE OF SERVICES

The McHenry County Division of Transportation, hereafter referred to as Local Public Agency (***LPA***), has initiated a project requiring professional engineering services by BLA, Inc. (***ENGINEER***) for Phase II - Design Engineering of the subject project.

UNDERSTANDING OF THE PROJECT

Project Scope and Limits. The scope of work is based on the approved Project Development Report (PDR) which includes the removal and replacement of the existing bridge and associated roadway approach work. The improvement limits are Station 230+50 to Station 248+00 (1,750 feet).

Schedule. Phase II design is anticipated to begin in April 2022 and be completed by November 2023 for submission to the Illinois Department of Transportation ***(DEPARTMENT)*** to be eligible for the November 17, 2023 letting with construction anticipated to begin by January 2024. This project has a commitment that tree removal can only occur between November 1 and March 1.

Proposed Bridge. The proposed bridge will measure 170'-6 ½" (056-4022) and 187' 1 ½" (056-4023) back to back of abutments with an 8-inch composite reinforced concrete deck. The superstructure will consist of 27" PPC IL Beams. The bridge deck out-to-out width will be 43'-4" with Caltrans ST-75 (or ST-76) railing and will carry 2 traffic lanes with 8 foot shoulders. The substructures will consist of integral abutments with 14" metal shell piles.

Proposed Roadway. The profile will be raised to provide a larger opening and provide the required clearance from the design year high-water elevation to the low beam. The profile will tie into the existing roadway approximately 400 feet from the bridge. In the proximity of the bridge, guardrail will protect bridge ends and non-recoverable slopes. The side slopes will vary between 4:1 and 3:1 where not protected by guardrail. The roadway width will carry two 12-foot traffic lanes with 8-foot HMA shoulders.

Submittals. All project submittals shall be submitted to the ***LPA*** for review and comment prior to being submitted to the ***DEPARTMENT*** and other agencies. The ***LPA*** may elect to perform concurrent reviews for pre-final and final submittals if previous comments are addressed to ***LPA's*** satisfaction. An electronic copy of all deliverables shall be provided to the ***LPA***. The ***ENGINEER*** shall copy the ***LPA*** on all submittals to the ***DEPARTMENT*** and other agencies. Each submittal is assumed to have three reviews using Bluebeam by the ***LPA***. The schedule should assume the first two reviews are three weeks and the third is one week.

Collaboration. Microsoft Teams should be the primary means of electronic communication with the ***LPA***. Various channels will be setup to organize project discussions. Bentley ProjectWise will be the primary means of data management. The ***ENGINEER*** or ***LPA*** will host the project on their server.

Correspondence. The ***ENGINEER*** shall maintain for a minimum of three (3) years after acceptance of Affidavit of Completion and the last action on the contract all project correspondence to the ***LPA*** and other outside agencies.

Stakeholders. Coordination is anticipated with the following stakeholders, agencies and utilities:

- McHenry County Division of Transportation
- Illinois Department of Transportation, District(s) 1
  - Bureau of Bridges and Structures
  - Bureau of Construction
  - Bureau of Land Acquisition
  - Bureau of Local Roads and Streets (BLR/BLRS)
  - Bureau of Materials
  - Bureau of Traffic
- Illinois Department of Natural Resources (IDNR)
- Illinois Environmental Protection Agency (IEPA)
- Illinois State Water Survey
- Federal Emergency Management Agency (FEMA)
- McHenry County Planning and Development
- McHenry County Farm Bureau
- McHenry-Lake County Soil & Water Conservation District (MLCSWCD)
- United States Army Corps of Engineers
- United States Fish & Wildlife Service
- United States Postal Service
- Seneca Township
- Village of Marengo and Village of Union
- Marengo Fire Protection District(s)
- Marengo-Union Elementary School District / Woodstock Community School District
- Property owners
- Utility companies

Subconsultants. The following subconsultants are anticipated to be used for the following services:

- Jorgensen & Associates, Inc.
  - Supplemental Survey
  - As-Builts
  - Plat of Highways and Legals

- Soil and Material Consultants, Inc (SMC)
  - Geotechnical Investigation –Walls
  - CCDD / LPC 663

Summary. The *Scope of Services* for the Phase II engineering involves the preparation of contract plans and documents to be let for construction by the ***DEPARTMENT***. Included in this scope are the following tasks:

- Early Coordination and Data Review
- Supplemental Surveys
- Utility Coordination
- Preliminary Site Investigation
- Roadway Plans
- Structural Plans
- Quantity Calculations
- Specifications and Special Provisions
- Construction Estimate of Cost and Estimate of Time
- PS&E Submittals
- Permitting and Environmental Coordination
- Phase III Activities
- Meetings and Coordination
- Project Administration and Management
- Quality Assurance/Quality Control
- Plat of Highways/Legal Description
- Geotechnical Investigation-Walls
- Structural Design Elements-ComEd

TASK 1 – EARLY COORDINATION AND DATA REVIEW

Review Existing Data. The following Phase I documents and existing data will be reviewed:

- Project Development Report
- Type, Size & Location drawing(s)
- Hydraulic Report
- Structure Geotechnical Report
- Abbreviated Location Drainage Study
- Wetland Delineation Report
- Utility atlases and base drawings
- Section 404 Permit, Floodway Construction Permit and McHenry County Stormwater Management Permit
- Asbestos Determination Certification form (BLR 10220)
- LPC 662 or LPC 663 form
- Existing roadway and structural plans
- Additional information acquired post-Phase I through coordination with stakeholders

Site Visit. A detailed field check of the Phase I drawings will be performed to verify existing conditions. It is anticipated that the MCDOT Project Manager and a member of Maintenance will be in attendance for the field check.

TASK 2 - SUPPLEMENTAL SURVEYS

Horizontal and Vertical Control. Re-establish vertical and horizontal control points for supplemental surveys and for reference on Alignment, Ties and Benchmark sheet.

Topographic Survey

- A limited topographic survey will be required to assess if site conditions have changed from those identified in the PDR and to create a revised existing conditions drawing and a Digital Terrain Model (DTM) for use in preparing cross sections. Two (2) crew days are assumed.
- The supplemental survey data will be downloaded and reviewed for completeness.
- The existing conditions base drawings and digital terrain model will be revised.

Right-of-Way. Stake right-of-way per approved plats.

TASK 3 - UTILITY COORDINATION

Conflict Identification. Prepare an exhibit showing the location of potential conflicts (based on best available information provided by local agencies and utility companies during Phase I), plot existing utilities in cross sections, summarize in a spreadsheet, prepare a photo log of the utilities, and submit with a ***LPA*** template cover letter to utility companies.

Relocation Assistance. Coordinate with local agencies and utility companies to ensure resolution of conflicts through project completion. Review utility relocation plans and permits to ensure compatibility with proposed improvement. Show proposed utilities on plans and cross sections. Preliminary, pre-final, and final plans will be sent to the utility companies.

TASK 4 – PRELIMINARY SITE INVESTIGATION

A Preliminary Site Investigation (PSI) is not required based on the findings of the Phase I study.

TASK 5 - ROADWAY PLANS

The roadway plans will be prepared under the supervision of a Professional Engineer and will consist of the following drawings:

- Cover Sheet..... 1 Sheet
- Index of Sheets, Highway Standards and Commitments..... 1 Sheets
- General Notes ..... 2 Sheets
- Summary of Quantities..... 6 Sheets
- Schedule of Quantities ..... 6 Sheets
- Typical Sections ..... 4 Sheets
- Alignment, Ties and Benchmarks ..... 1 Sheets
- Removal Plan ..... 2 Sheets
- Plan & Profile..... 4 Sheets
- Drainage and Utility Plan and Profile ..... 4 Sheets
- Detour Plan and Notes..... 2 Sheets
- Stormwater Pollution Prevention Plan and Notes ..... 1 Sheets
- Soil Erosion and Sediment Control Plan and Details..... 8 Sheets
- In-Stream Guideline Details ..... 1 Sheets

- Grading Plan – Bridge and Channel ..... 2 Sheets
- Plat of Highways..... 10 Sheets
- Pavement Marking & Signing ..... 2 Sheets
- Landscaping Plan..... 3 Sheets
- Structural Sheets..... See Task 6
- Detail Sheets ..... 2 Sheets
- District One Details..... 5 Sheets
- Cross Sections ..... 20 Sheets

Pavement Design. Develop a pavement design for full-depth HMA pavement in accordance with ***DEPARTMENT***/BLRS procedures.

Compensatory Storage Design. Perform drainage and compensatory storage calculations to satisfy the McHenry County Stormwater Management Ordinance requirements.

TASK 6 – STRUCTURAL PLANS

The structural plans will be developed and included in the submittals outlined in Task 4. The structural plans will be prepared by, or under the supervision of, an Illinois Licensed Structural Engineer and will consist of the following drawings:

- General Plan and Elevation..... 2 Sheets
- General Data ..... 4 Sheets
- Top of Deck Elevations ..... 6 Sheets
- Top of Approach Slab Elevations..... 4 Sheets
- Superstructure Details..... 8 Sheets
- Diaphragm Details..... 2 Sheets
- Railing Details ..... 6 Sheets
- Bridge Approach Slab Details ..... 6 Sheets
- Framing Plan ..... 2 Sheets
- Beam Details ..... 4 Sheets
- Abutment Details ..... 8 Sheets
- Retaining Wall Details ..... 24 Sheets
- Moment /Anchorage Slab Details..... 13 Sheets
- Pile Details..... 2 Sheets
- Pipe Drain Details..... 2 Sheets
- Soil Borings ..... 18 Sheets
- Existing Plans..... 12 Sheets

TASK 7 - QUANTITY CALCULATIONS

Quantity calculations will be prepared and included in the submittals outlined in Task 10. The computed quantities will serve as the basis for the Summary of Quantities plan sheet and the ***ENGINEER's*** Estimate of Cost.

- Earthwork computations, pavement computations and other quantity calculations will conform to the requirements of Section 11-5 of the *BLRS Manual* and the *Chapter 64* of the ***DEPARTMENT*** *Bureau of Design and Environment* (*BDE) Manual.*

- The computations will be done in spreadsheet format utilizing Microsoft Excel.

- The *Standard Specifications for Road and Bridge Construction, Supplemental Specifications* and the *Recurring Special Provisions* will be cross checked to ensure that the appropriate

pay items, methods of measurement and basis of payment are used. For each quantity, the IDOT coded pay item number will be used. These coded pay items will determined from the *IDOT Coded Pay Items* on the ***DEPARTMENT*** website.

TASK 8 - SPECIFICATIONS AND SPECIAL PROVISIONS

The specifications and special provisions will be developed and included in the submittals outlined in Task 10.

- The *IDOT Standard Specifications* and *Supplemental Specifications* are included by reference in the first paragraph of the project Special Provisions. Applicable *IDOT Recurring Special Provisions* and *Recurring Local Roads and Streets Special Provisions* will be included by reference by use of the Check Sheet for Supplemental Specifications and Recurring Special Provisions.

- Where a project work item contains work, material, unique sequence of operations or any other requirements that are not included in the *Standard Specifications*, *Supplemental Specifications, Recurring Special Provisions, BDE Special Provisions, Guide Bridge Special Provisions or MCDOT Special Provisions*, a project specific Special Provision will be written. These Special Provisions will conform to the requirements of Section 11-3 of the *BLRS Manual* and *Chapter 66* of the *BDE Manual.*

TASK 9 - CONSTRUCTION ESTIMATE OF COST AND ESTIMATE OF TIME

Estimate of Cost. Prepare a construction Estimate of Cost for the pre-final and final submittals. Utilizing the pay items and quantities, the Estimate of Cost will be generated. Itemized costs will be determined using available guides and bid tabulations from similar projects. In addition, the pay item reports with awarded prices from the ***DEPARTMENT's*** website will be used to approximate current unit costs. BLR Form 11510 will be used to prepare the cost estimate and will include pay item number, item, unit, quantity, unit cost and total cost. A detailed breakdown of lump sum costs will be provided.

Schedule. Prepare a bar schedule of the anticipated construction timeline.

Estimate of Time. BDE Form 220A will be used to prepare the estimate of time for the pre-final and final submittals and will include item number, item, unit, quantity, average production rate, and number of working days. Itemized production rates will be determined using established guideline shown in the Chapter 66 of the *BDE Manual*.

TASK 10 – PS&E SUBMITTALS

The work under this task includes time associated with preparing plot files, coordination of printing and distribution of plans to all stakeholders. Submittals will be prepared and assembled in accordance with ***DEPARTMENT***/BLRS *Phase 2 Plans and Specifications Guidelines.* The final number of copies will be as directed by the ***DEPARTMENT.***

Preliminary. This submittal will be considered 85% complete and will include plans, specifications, estimate of cost, estimate of time, and a schedule. A PDF of these documents will be submitted to the ***LPA*** and utility companies.

Pre-final. This submittal will be considered 95% complete and will include plans, specifications, cost estimate, estimate of time, and schedule. PDFs of these documents will be submitted to the ***LPA***,

DEPARTMENT, local agencies, permitting agencies and utility companies.

Plan-in-Hand Field Review. Field meeting with ***LPA*** and ***DEPARTMENT,*** if necessary, to review the pre-final plans and documents for constructability.

Final. This submittal will be considered 100% complete and will include plans, specifications, cost estimate, estimate of time, schedule and final documents/calculations. These documents will be submitted to the ***LPA***, ***DEPARTMENT,*** local agencies, permitting agencies and utility companies as discussed in the Submittals section. One full size (22x34) individual Mylar for the Cover, Summary of Quantities and Structural GP&E sheets requiring a seal/signature will be required.

Agency	Plans	Documents
LPA	PDF	PDF
DEPARTMENT/BLRS	PDF	PDF
	2 copies (11”x17”), 1 copy (22”x34”) and 1 copy of Mylars	3 copies
Local Agencies	PDF	PDF
MCP&D	1 copy (11”x17”)	PDF
MLCSWCD	1 copy (22”x34”)	PDF
USACE	1 copy (22”x34”)	N/A
Utilities	PDF	N/A

Central Office. This is the bid set submittal and will include plans, specifications, cost estimate, and estimate of time.

Agency	Plans	Documents
LPA	2 copies (11”x17”), 2 copies (22”x34”) 2 copies (Specifications) 2 copies Estimate of Cost 2 copies Estimate of Time 2 copes Quantity Calculations	12 copies
DEPARTMENT/BLRS	PDF	PDF

Electronic files including (dgn, pdf, word and excel files) will be included in the submittal to ***LPA*** for the preliminary, pre-final, final and Central Office submittals.

Disposition of Comments. The preliminary, pre-final and final submittals will include a formal disposition of comments that addresses all review comments from the ***DEPARTMENT*** and any other agencies. Dispositions to ***LPA*** comments will be through Bluebeam.

Tree Removal Contract Preparation. Prepare a separate contract for tree removal to be let by the ***LPA***. This will also include the following items:

- Specifications and special provisions. The documents will be prepared in Microsoft Word software.
- Quantity calculations and construction estimate of cost. All cost estimates will be prepared using Microsoft Excel software.
- Estimate of Time.

TASK 11 - PERMITTING AND ENVIRONMENTAL COORDINATION

Wetland Mitigation. Assist the ***LPA*** with the wetland mitigation process. Wetland mitigation is to be provided by a wetland mitigation bank. Payment of the wetland banking fee will be provided by the ***LPA.***

Section 404 Permit. Prepare and submit the joint application. This application packet is designed to simplify the approval process from the (USACE), Illinois Department of Natural Resources/Office of Water Resources (IDNR/OWR) and the Illinois Environmental Protection Agency (IEPA). It is assumed that the project will be permitted as a Regional 404 Permit.

McHenry County Stormwater Management Permit. Prepare the necessary documentation to submit to McHenry County Planning and Development (MCP&D) a permit application for the storm water management, floodplain, and wetland portions of the McHenry County Stormwater Management Ordinance. Provide revisions as necessary until permit application has been approved.

McHenry-Lake County Soil Water and Conservation District (MLCSWCD) Review. Prepare the necessary submittals required for MLCSWCD's soil erosion and sediment control review and approval. The Review Fee, Inspect fee, In-Stream Fee, Wetland Impact Fee, and Pre-construction notice fee will be paid by the ***LPA***.

Floodway Construction Permit. Complete and submit a floodway construction permit for the Illinois Department of Natural Resources – Office of Water Resources (IDNR-OWR).

NPDES Permit. Complete and submit the National Pollutant Discharge Elimination System (NPDES) Permit, Stormwater Pollution Prevention Plan (SWPPP), Notice of Intent (NOI) and Erosion and Sediment Control Plans to IEPA. Complete BDE Forms 2342 and 2342A for inclusion into the Special Provisions.

Environmental Clearance Updates: The environmental clearances will be evaluated for expiration and updated prior to the expiration date in order to be cleared for letting. The Natural Resources Review is set to expire in early 2023. The appropriate documents, forms, and exhibits will be prepared and submitted for renewal.

TASK 12 - PHASE III ACTIVITIES

Request for Information. Provide direction and clarification for Request for Information (RFI's) from contractor questions during the bidding process and respond to RFI's, which may include plan revisions during construction.

Shop Drawing Review. Provide shop drawing review on all items where review is required by the contract specifications and IDOT documentation procedures. The following items are assumed to require reviews:

- PPC Beam (North Bridge 056-4022)
- PCC Beam (South Bridge 056-4023)
- CalTrans ST-75 (or ST-76) Railings (North Bridge 056-4022)
- CalTrans ST-75 (or ST-76) Railings (South Bridge 056-4023)
- Retaining Wall Lagging Details

Pre-Construction Meeting. Attend the mandatory pre-construction meeting at ***DEPARTMENT*** District 1 office (See Task 11 – Meetings and Coordination).

As-Built Survey and Certification. As-built plans (record drawings) prepared by a licensed land

surveyor or licensed professional engineer shall be submitted at the completion of construction. As-built plans, at a minimum, shall include the following information:

- A certificate stating that compensatory storage areas/stormwater management facilities were constructed in substantial conformance with the approved development plans.

- For compensatory storage areas:
  - A tabular summary of fill and excavation volumes;
  - Cross-sections showing the areas of fill and excavation; and
  - A plan view delineating the location of cross-sections.

Letter of Map Revision (LOMR). Coordination with the Federal Emergency Management Agency (FEMA) is anticipated to document the official modification to the effective insurance rate map for the existing unmapped floodplain. The ***ENGINEER*** will complete and submit the MT-2 permit application to the Illinois State Water Survey for initial review on FEMA's behalf. Upon acceptance from Illinois State Water Survey, the LOMR will be submitted to FEMA to become accepted and effective. Current FEMA on-line technical review fees are included in the direct costs.

TASK 13 - MEETINGS AND COORDINATION

Meetings will serve to discuss and resolve issues in the design engineering process. Agendas and exhibits will be prepared and distributed prior to meetings. Draft minutes will be prepared and distributed no later than five working days after the meeting. Final minutes will be distributed no later than five working days after the review period. A list of action items will be maintained and updated at each meeting. The following meetings are anticipated:

- One (1) Phase I Plan in Hand Site Verification with **LPA**
- One (1) project initiation meeting with the ***LPA***
- One (1) project initiation meeting with the ***DEPARTMENT***
- One (1) Pre-Final plan-in-hand meeting with the ***LPA***
- One (1) meeting with McHenry County P&D
- One (1) meeting with U.S. Army Corps of Engineers
- One (1) pre-construction meeting with the MLCSWCD
- One (1) meeting with IDOT District One Detour Committee
- One (1) pre-construction meeting with the ***DEPARTMENT***
- Three (3) meetings with Utility Companies

TASK 14 - PROJECT ADMINISTRATION AND MANAGEMENT

The successful management of a Phase II project requires scheduling and reporting of the progress of the project. Services will include the following tasks:

- Project setup including contract administration, budget control and internal project team meetings and project close out.

- Prepare and submit monthly invoices and progress reports during months when engineering activities occur, and invoices are due. Progress reports are due by the first of the month.

- Provide phone and email updates and general project coordination with the ***LPA*** as necessary to advance the progress of the project. A one hour video meeting is assumed every other month.

- Prepare and monitor a project schedule and update quarterly as tasks or project scheduling change, as well as perform scope of services reviews, resource planning, internal team coordination and contract administration and invoicing. The schedule assumes twelve (12) months for Phase II services and twelve (12) months for Phase III activities.

TASK 15 – QUALITY ASSURANCE/QUALITY CONTROL

- Establish and adhere to an approved project QA/QC plan.

- Submit certification of QA/QC for each submittal attesting the QA/QC plan has been implemented on the contract documents.

- Perform an independent peer review and constructability review of the preliminary, pre-final and final plans and documents.

TASK 16 – PLAT OF HIGHWAYS / LEGAL DESCRIPTION

As a result of the proposed profile adjustment associated with the replacement of the bridges, right-of-way acquisition and temporary construction easements are necessary. The Consultant will prepare the plats and legal descriptions. *The Plats and Legal Descriptions will be necessary for this project due to the raise of the roadway profile, compensatory storage locations, and realignment of the driveway in the northwest corner of the project*

ROW acquisition and/or easements will potentially impact six (6) land parcels.

12-29-400-001
12-29-326-002
12-29-200-013
12-29-100-010
12-29-200-012
12-29-100-021

- Necessary courthouse research will be performed that will include all the plats, deeds, and right-of-way documents for each parcel within the project limits and adjoining the project.
- Additional monument reconnaissance in the field as required to verify the existing right-of-way of Millstream Road.
- A Plat will be prepared for the right-of-way takings and temporary construction easements and legal descriptions will be written for the six (6) parcels affected. A separate legal description will be needed for each holding affected, as determined by ownership. Current Title Commitments will be necessary to determine ownership and total holdings.
- Plat-of-Highway and legal descriptions will be prepared and submitted to IDOT for review and comment.
- Plats shall be in accordance to IDOT and County standards.
- After construction property irons and resetting property corners in the temporary easement shall occur.

TASK 17 – GEOTECHNICAL INVESTIGATION - WALLS

Structure borings for the proposed retaining walls and design recommendations will be performed and/or provided. Geotechnical services and report will conform to the requirements of the ***DEPARTMENT*** *Geotechnical Manual*. An aerial markup of the boring and core locations will be provided to the ***LPA*** for approval. A ***LPA*** Facility Installation Permit is required prior to performing this work.

Structure Borings. Structure borings are to be performed for the geotechnical investigation. The boring locations shall be based on the proposed retaining wall layout.

- 14 borings will be located along the proposed retaining wall locations. Based on geologic maps of the area and on ***DEPARTMENT*** accepted procedures, geotechnical subconsultant will determine the depth of the borings.

Laboratory Testing. The scope will include per AASHTO/ASTM guidelines testing for soil index, particle size distribution, Atterberg limits, soil settlement and collapse potential, shear strength of soil and soil classification.

Coordination. The ***ENGINEER*** anticipates and has allotted for one (1) pre boring field meeting with the geotechnical subconsultant to layout and coordinate final location of bridge so the geotechnical firm can locate cores and borings. In addition a post boring meeting has been included as well.

Traffic Control. The geotechnical subconsultant's scope of service will include all necessary traffic control and flagman required to complete subsurface drilling and testing operations. Any required permits will be obtained from the ***LPA*** or Township.

Structure Design Recommendations. Present design recommendations for the structure alternatives including foundation type, allowable loads, slope stability, settlement and constructability.

Structure Geotechnical Report. A Structure Geotechnical Report will be prepared to document findings and recommendations.

Potentially Impacted Property (PIP) Evaluation. Soil testing (including pH) will be performed to determine if there are areas for special waste disposal and satisfy the Clean Construction or Demolition Debris (CCDD) requirements. This includes the preparation of the LPC 663 form as required.

TASK 18 – STRUCTURAL DESIGN ELEMENTS - COMED

ComED coordination will be required in the Phase II design. (Hours for coordination and meetings are included in Task 3 and Task 13, respectively). As a result of the coordination modifications and revisions to the structural design of the bridge may occur. To meet the required setbacks established by ComED there is potential to adjust the width of the bridge to either 36 feet or 32 feet from the original 40 foot design. Included in this task is the hours associated with re-analyzation of the beam and framing design as well as resubmittal of the TS&L for approval. In addition, evaluation of additional structural alternatives such as integral shoulder bridge and retaining wall system will be explored to present as coordination efforts with ComED. Plan sheets, pay items, and quantities are included in this Task, which is to be used as necessary and directed by the County.

In addition, scope has been added to this task to review and update roadside drainage and the Abbreviated Location Drainage Study, if necessary due to the outcome of ComED Coordination. The anticipated work includes ditch location revisions resulting in modified capacity analysis, flows, and design.

EXCLUSIONS TO THE SCOPE OF SERVICES

The following tasks or items were deemed unnecessary and would be considered as additional services if required:

- Public informational meeting or public hearing
- Public notices
- BIM 3D Modeling
- Preliminary Site Investigation (PSI)
- Wetland banking fee
- Subsurface Utility Engineering (SUE) investigation
- Individual Permit (Army Corps)
- Roadway Re-alignment: Major

Local Public Agency	County	Section Number
County of McHenry	McHenry	18-00482-00-BR

EXHIBIT B
PROJECT SCHEDULE

See Attached Exhibit B

Exhibit B

Project Schedule

CONSULTING ENGINEERS

BLA, Inc.
333 Pierce Road, Suite 200 • Itasca, IL 60143
630 438 6400 • FAX 630 438 6444 • www.bla-inc.com

McHenry County Division of Transportation

Millstream Road Bridges over Kishwaukee River / South Branch Kishwaukee River - Bridge Replacements

Phase II - Anticipated Schedule

Work by BLA Team **Milestone Submittals** **Review Time / By Others**

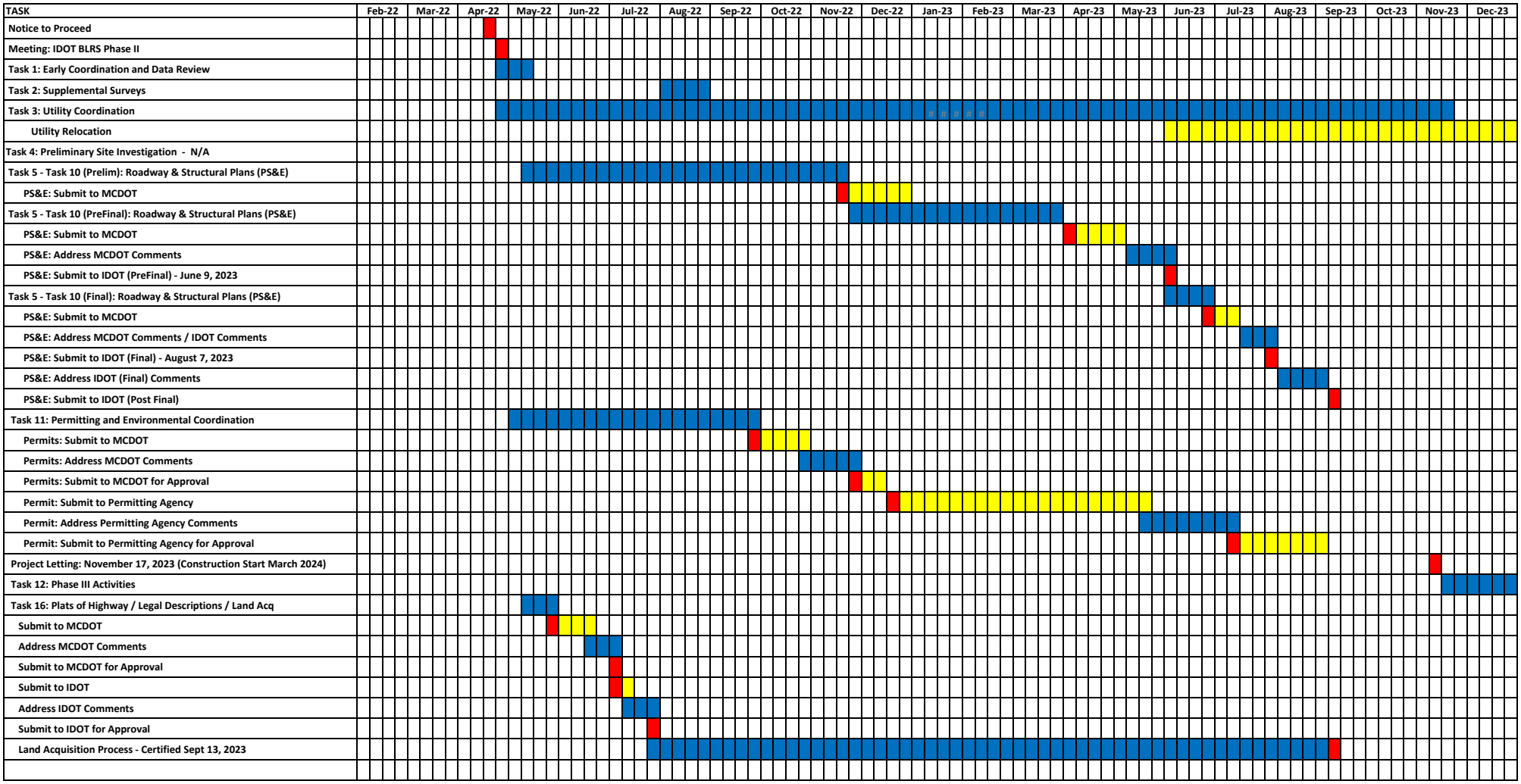


Exhibit C

Direct Cost

CONSULTING ENGINEERS

BLA, Inc.

333 Pierce Road, Suite 200 • Itasca, IL 60143

630 438 6400 • FAX 630 438 6444 • www.bla-inc.com

Local Public Agency	County	Section Number
County of McHenry	McHenry	18-00482-00-BR

Exhibit C
Direct Costs Check Sheet

List ALL direct costs required for this project. Those not listed on the form will not be eligible for reimbursement by the LPA on this project.

	Item	Allowable	Quantity	Contract Rate	Total
☐	Lodging (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost (Up to state rate maximum)			
☐	Lodging Taxes and Fees (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual Cost			
☐	Air Fare	Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval			
☐	Vehicle Mileage (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum			
☒	Vehicle Owned or Leased	$32.50/half day (4 hours or less) or $65/full day	13	$65.00	$845.00
☐	Vehicle Rental	Actual cost (Up to $55/day)			
☐	Tolls	Actual cost			
☐	Parking	Actual cost			
☐	Overtime	Premium portion (Submit supporting documentation)			
☐	Shift Differential	Actual cost (Based on firm's policy)			
☐	Overnight Delivery/Postage/Courier Service	Actual cost (Submit supporting documentation)			
☒	Copies of Deliverables/Mylars (In-house)	Actual cost (Submit supporting documentation)	1	$698.00	$698.00
☐	Copies of Deliverables/Mylars (Outside)	Actual cost (Submit supporting documentation)			
☐	Project Specific Insurance	Actual Cost			
☐	Monuments (Permanent)	Actual Cost			
☐	Photo Processing	Actual Cost			
☐	2-Way Radio (Survey or Phase III Only)	Actual Cost			
☐	Telephone Usage (Traffic System Monitoring Only)	Actual Cost			
☐	CADD	Actual cost (Max $15/hour)			
☐	Web Site	Actual cost (Submit supporting documentation)			
☐	Advertisements	Actual cost (Submit supporting documentation)			
☐	Public Meeting Facility Rental	Actual cost (Submit supporting documentation)			
☐	Public Meeting Exhibits/Renderings & Equipment	Actual cost (Submit supporting documentation)			
☐	Recording Fees	Actual Cost			
☐	Transcriptions (specific to project)	Actual Cost			
☐	Courthouse Fees	Actual Cost			
☐	Storm Sewer Cleaning and Televising	Actual cost (Requires 2-3 quotes with IDOT approval)			
☐	Traffic Control and Protection	Actual cost (Requires 2-3 quotes with IDOT approval)			
☐	Aerial Photography and Mapping	Actual cost (Requires 2-3 quotes with IDOT approval)			
☐	Utility Exploratory Trenching	Actual cost (Requires 2-3 quotes with IDOT approval)			
☐	Testing of Soil Samples	Actual Cost			
☐	Lab Services	Actual Cost (Provide breakdown of each cost)			
☐	Equipment and/or Specialized Equipment Rental	Actual Cost (Requires 2-3 quotes with IDOT approval)			
☐					
☐					
☐					
☐					
☐					
				Total Direct Costs	$1,543.00

CH T64 -MILLSTREAM ROAD OVER
KISHWAUKEE RIVER / SOUTH BRANCH KISHWAUKEE RIVER
SECTION: 18-00482-00-BR
D-91-001-19 / 8M8X(096)

Task and Description	Sheets	Sets	Rate	Extended Cost
Task 1 - Early Coordination and Data Review				
Vehicle Days		1	$65.00	$65.00
			Subtotal:	$65.00
Task 2 - Supplemental Survey				
(No Direct Cost - Included in Subconsultant's Cost)	---	---	---	---
			Subtotal:	---
Task 3 - Utility Coordination				
Conflict List (8.5x11)	4	9	$0.07	$36.00
Conflict Exhibit (11x17 Color)	4	9	$0.24	$36.00
Photo Log (8.5x11 Color)	4	9	$0.24	$36.00
			Subtotal:	$108.00
Task 4 - Preliminary Site Investigation				
(No Direct Cost - Included in Subconsultant's Cost)	---	---	---	---
			Subtotal:	---
Task 5 - Roadway Plans				
(No Direct Cost - Included in Task 15)	---	---	---	---
			Subtotal:	---
Task 6 - Structural Plans				
(No Direct Cost - Included in Task 15)	---	---	---	---
			Subtotal:	---
Task 7 - Quantity Calculations				
(No Direct Cost - Included in Task 15)	---	---	---	---
			Subtotal:	---
Task 8 - Specifications and Special Provisions				
(No Direct Cost - Included in Task 15)	---	---	---	---
			Subtotal:	---
Task 9 - Construction Estimate of Cost and Estimate of Time				
(No Direct Cost - Included in Task 15)	---	---	---	---
			Subtotal:	---
Task 10 - PS&E Submittals				
Final Sumittal - Plans (11x17 BW)	200	2	$0.07	$28.00
Final Sumittal - Plans (22x34 BW)	200	2	$0.34	$136.00
Final Sumittal - Documents (8.5x11 BW)	300	6	$0.07	$126.00
Final Sumittal (22x34 Mylar - Cover)	1	1	$10.40	$10.40
Final Sumittal (22x34 SOQ, GPE)	8	1	$0.34	$2.72
Vehicle Days		1	$65.00	$65.00
			Subtotal:	$368.12

Task 11 - Permitting and Environmental Coordination				
Section 404 Permit (11x17 Color)	10	3	$0.24	$7.20
Section 404 Permit (8.5x11 Color)	20	3	$0.24	$14.40
McHenry County PD Permit (11x17 Color)	10	3	$0.24	$7.20
McHenry County PD Permit (8.5x11 Color)	20	3	$0.24	$14.40
McHenry Lake SWCD Permit (11x17 Color)	10	3	$0.24	$7.20
McHenry Lake SWCD Permit (8.5x11 Color)	20	3	$0.24	$14.40
NPDES Permit (11x17 Color)	10	3	$0.24	$7.20
NPDES Permit (8.5x11 Color)	20	3	$0.24	$14.40
			Subtotal:	$86.40
Task 12 - Phase III Activities				
LOMR (11x17 Color)	10	2	$0.24	$4.80
LOMR (8.5x11 BW)	10	2	$0.07	$1.40
As-Builts (11x17 Color)	4	2	$0.24	$1.92
Vehicle Days		1	$65.00	$65.00
			Subtotal:	$73.12
Task 13 - Meetings and Coordination				
Exhibits (11x17 Color)	4	10	$0.24	$9.60
Agenda, Minutes, Handouts (8.5x11 Color)	2	10	$0.24	$4.80
Vehicle Days		10	$65.00	$650.00
			Subtotal:	$664.40
Task 14 - Project Administration and Management				
(No Direct Cost)	---	---	---	---
			Subtotal:	---
Task 15 - Quality Assurance / Quality Control				
Roadway Plan Set Check Plots - Plans (11x17 BW)	100	5	$0.07	$35.00
Roadway Plan Set Check Plots - Specifications (8.5x11 BW)	150	5	$0.07	$52.50
Roadway Plan Set Check Plots - Quantities (8.5x11 BW)	50	5	$0.07	$17.50
Roadway Plan Set Check Plots - Estimates (8.5x11 BW)	5	5	$0.07	$1.75
Structural Plan Set Check Plots - Plans (11x17 BW)	50	5	$0.07	$17.50
Structural Plan Set Check Plots - Specifications (8.5x11 BW)	100	5	$0.07	$35.00
Structural Plan Set Check Plots - Quantities (8.5x11 BW)	50	5	$0.07	$17.50
Structural Plan Set Check Plots - Estimates (8.5x11 BW)	5	5	$0.07	$1.75
			Subtotal:	$178.50
Task 16 - Plat of Highway / Legal Description				
(No Direct Cost)	---	---	---	---
			Subtotal:	---
Task 17 - Geotechnical Investigation - Walls				
(No Direct Cost)	---	---	---	---
			Subtotal:	---
Task 17 - Structural Design Adjusments - ComED				
(No Direct Cost)	---	---	---	---
			Subtotal:	---
Total				**$1,543.54**

Exhibit D

QBS Checklist

CONSULTING ENGINEERS

BLA, Inc.

333 Pierce Road, Suite 200 • Itasca, IL 60143

630 438 6400 • FAX 630 438 6444 • www.bla-inc.com

Local Public Agency	County	Section Number
County of McHenry	McHenry	18-00482-00-BR

Exhibit D
Qualification Based Selection (QBS) Checklist

The LPA must complete Exhibit D. If the value meets or will exceed the threshold in 50 ILCS 510, QBS requirements must be followed. Under the threshold, QBS requirements do not apply. The threshold is adjusted annually. If the value is under the threshold with federal funds being used, federal small purchase guidelines must be followed.

☐ Form Not Applicable (engineering services less than the threshold)

Items 1-13 are required when using federal funds and QBS process is applicable. Items 14-16 are required when using State funds and the QBS process is applicable.

		No	Yes
1	Do the written QBS policies and procedures discuss the initial administration (procurement, management and administration) concerning engineering and design related consultant services?	☐	☒
2	Do the written QBS policies and procedures follow the requirements as outlined in Section 5-5 and specifically Section 5-5.06 (e) of the BLRS Manual?	☐	☒
3	Was the scope of services for this project clearly defined?	☐	☒
4	Was public notice given for this project?	☐	☒

If yes Due date of submittal 04/12/18

Method(s) used for advertisement and dates of advertisement

Newspaper: Daily Herald Classified - 03/16/2018
County Purchasing Website: 03/15/2018 through 04/12/2018

5	Do the written QBS policies and procedures cover conflicts of interest?	☐	☒
6	Do the written QBS policies and procedures use covered methods of verification for suspension and debarment?	☐	☒
7	Do the written QBS policies and procedures discuss the methods of evaluation?	☐	☒

	Project Criteria	Weighting
-	Technical Approach	20%
-	Firm Experience	20%
-	Specialized Expertise	10%
-	Staff Capabilities	25%
-	Work Load Capacity	10%
-	Past Performance	15%
-	In-State / Local Presence	0%

Add

8	Do the written QBS policies and procedures discuss the method of selection?	☐	☒

Selection committee (titles) for this project

Design Engineer II, Design Engineer III, Design Manager

	Top three consultants ranked for this project in order
1	BLA, Inc
2	AECOM
3	Engineering Resources Associates, Inc

9	Was an estimated cost of engineering for this project developed in-house prior to contract negotiation?	☐	☒
10	Were negotiations for this project performed in accordance with federal requirements.	☐	☒
11	Were acceptable costs for this project verified?	☐	☒
12	Do the written QBS policies and procedures cover review and approving for payment, before forwarding the request for reimbursement to IDOT for further review and approval?	☐	☒
13	Do the written QBS policies and procedures cover ongoing and finalizing administration of the project (monitoring, evaluation, closing-out a contract, records retention, responsibility, remedies to violations or breaches to a contract, and resolution of disputes)?	☐	☒

Local Public Agency	County	Section Number
County of McHenry	McHenry	18-00482-00-BR

14	QBS according to State requirements used?	☐	☒
15	Existing relationship used in lieu of QBS process?	☒	☐
16	LPA is a home rule community (Exempt from QBS).	☒	☐

Exhibit E

CECS

CONSULTING ENGINEERS
BLA, Inc.
333 Pierce Road, Suite 200 • Itasca, IL 60143
630 438 6400 • FAX 630 438 6444 • www.bla-inc.com

Illinois Department of Transportation

EXHIBIT E

COST ESTIMATE OF CONSULTANT SERVICES WORKSHEET

ANNIVERSARY RAISE

Local Public Agency	County	Section Number
McHenry County Division of Transportation	McHenry	18-00482-00-BR

Consultant (Firm) Name	Prepared By	Date
BLA, Inc	Matthew Cesario, P.E.	11/10/2021

PAYROLL ESCALATION TABLE

CONTRACT TERM	18	MONTHS	OVERHEAD RATE	102.02%
START DATE	5/1/2022		COMPLEXITY FACTOR	0
RAISE DATE	ANNIVERSARY		% OF RAISE	2.00%

ESCALATION PER YEAR

DETERMINE THE MID POINT OF THE AGREEMENT

9

CALCULATE THE ESCALATION FACTOR TO THE MIDPOINT OF THE CONTRACT

1.50%

The total escalation for this project would be: **1.50%**

Local Public Agency	County	Section Number
McHenry County Division of Transportation	McHenry	**18-00482-00-BR**

PAYROLL RATES

Exhibit E Cost Estimate of Consultant Services Worksheet Anniversary Raise

MAXIMUM PAYROLL RATE	**78.00**
ESCALATION FACTOR	**1.50%**

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Principal	$78.00	$78.00
Dir. Structural Engineering	$75.00	$76.13
Senior Structural Manager	$69.32	$70.36
Structural Engineer I	$33.00	$33.50
Project Manager	$57.69	$58.56
Project Engineer	$38.13	$38.70
Design Engineer	$31.21	$31.68
Dir. Environmental Services	$56.00	$56.84

Local Public Agency	County	Section Number
McHenry County Division of Trar	McHenry	18-00482-00-BR

SUBCONSULTANTS

Exhibit E Cost Estimate of Consultant Services Worksheet Anniversary Raise

Name	Direct Labor Total	Contribution to Prime Consultant
Jorgensen	17,337.00	1,733.70
Soil and Material Consultants	3,780.00	378.00

Total **21,117.00** **2,111.70**

Local Public Agency	County	Section Number
McHenry County Division of Transportation	McHenry	18-00482-00-BR

COST ESTIMATE WORKSHEET

Exhibit E Cost Estimate of Consultant Services Worksheet Anniversary Raise

OVERHEAD RATE 102.02% **COMPLEXITY FACTOR** 0.00%

TASK	STAFF HOURS	PAYROLL	OVERHEAD & FRINGE BENEFITS	DIRECT COSTS	FIXED FEE	SERVICES BY OTHERS	TOTAL	% OF GRAND TOTAL
Task 1: Early Coordination	12	462	471	65	140		1,138	0.16%
Task 2: Supplemental Survey	16	603	615		183	4,197	5,598	0.78%
Task 3: Utility Coordination	92	3,826	3,904	108	1,159		8,997	1.25%
Task 4: Prelim Site Invest. (N/A)		-	-		-		-	0.00%
Task 5: Roadway Plans	1194	46,749	47,693		14,166		108,608	15.07%
Task 6: Structural Plans	3258	153,966	157,076		46,656		357,698	49.62%
Task 7: Quantity Calculations	150	6,070	6,193		1,840		14,103	1.96%
Task 8: Specifications and SP	100	4,038	4,119		1,224		9,381	1.30%
Task 9: Construction EOC EOT	32	1,285	1,311		389		2,985	0.41%
Task 10: PS&E Submittals	168	6,547	6,679	368	1,984		15,578	2.16%
Task 11: Permitting and Env	196	9,072	9,255	86	2,749		21,162	2.94%
Task 12: Phase III Activities	168	9,275	9,462	73	2,811	14,699	36,320	5.04%
Task 13: Meetings and Coord.	70	4,351	4,439	664	1,319		10,773	1.49%
Task 14: Project Admin and Man	60	4,168	4,253		1,263		9,684	1.34%
Task 15: QA/QC	100	6,862	7,001	179	2,079		16,121	2.24%
Task 16: Plat of Highways / Legal	16	778	794		236	34,225	36,033	5.00%
Task 17: Geotech Invest - Walls	8	415	424		126	34,640	35,605	4.94%
Task 18: Structural Design - ComE	320	13,395	13,666		4,059		31,120	4.32%
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
Subconsultant DL					0		-	0.00%
TOTALS	5960	271,862	277,355	1,543	82,383	87,761	720,904	100.00%
		549,217						

The subconsultant fee has been adjusted due to 15% fixed

Local Public Agency	County	Section Number
McHenry County Division of Transportation	McHenry	18-00482-00-BR

AVERAGE HOURLY PROJECT RATES

Exhibit E Cost Estimate of Consultant Services Worksheet Anniversary Raise

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			Task 1: Early Coordination			Task 2: Supplemental Survey			Task 3: Utility Coordination			Task 4: Prelim Site Invest. (N/A)			Task 5: Roadway Plans		
		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	24.0	0.40%	0.31															
Dir. Structural Engineering	76.13	634.0	10.64%	8.10															
Senior Structural Manager	70.36	724.0	12.15%	8.55															
Structural Engineer I	33.50	2,236.0	37.52%	12.57															
Project Manager	58.56	574.0	9.63%	5.64	2	16.67%	9.76	2	12.50%	7.32	24	26.09%	15.28				238	19.93%	11.67
Project Engineer	38.70	700.0	11.74%	4.55	4	33.33%	12.90	6	37.50%	14.51	38	41.30%	15.99				360	30.15%	11.67
Design Engineer	31.68	1,014.0	17.01%	5.39	6	50.00%	15.84	8	50.00%	15.84	30	32.61%	10.33				596	49.92%	15.81
Dir. Environmental Services	56.84	54.0	0.91%	0.51															
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
TOTALS		5960.0	100%	$45.61	12.0	100.00%	$38.50	16.0	100%	$37.67	92.0	100%	$41.59	0.0	0%	$0.00	1194.0	100%	$39.15

Local Public Agency	County	Section Number
McHenry County Division of Transportation	McHenry	18-00482-00-BR

AVERAGE HOURLY PROJECT RATES

Exhibit E Cost Estimate of Consultant Services Worksheet Anniversary Raise

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Task 6: Structural Plans			Task 7: Quantity Calculations			Task 8: Specifications and SP			Task 9: Construction EOC EOT			Task 10: PS&E Submittals			Task 11: Permitting and Env		
		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																		
Dir. Structural Engineerin	76.13	488	14.98%	11.40															
Senior Structural Manage	70.36	652	20.01%	14.08															
Structural Engineer I	33.50	2118	65.01%	21.77															
Project Manager	58.56				36	24.00%	14.05	24	24.00%	14.05	8	25.00%	14.64	32	19.05%	11.15	48	24.49%	14.34
Project Engineer	38.70				50	33.33%	12.90	32	32.00%	12.38	8	25.00%	9.68	52	30.95%	11.98	52	26.53%	10.27
Design Engineer	31.68				64	42.67%	13.52	44	44.00%	13.94	16	50.00%	15.84	84	50.00%	15.84	48	24.49%	7.76
Dir. Environmental Servic	56.84																48	24.49%	13.92
TOTALS		3258.0	100%	$47.26	150.0	100%	$40.47	100.0	100%	$40.38	32.0	100%	$40.15	168.0	100%	$38.97	196.0	100%	$46.29

Local Public Agency	County	Section Number
McHenry County Division of Transportation	McHenry	18-00482-00-BR

AVERAGE HOURLY PROJECT RATES

Exhibit E Cost Estimate of Consultant Services Worksheet Anniversary Raise

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Task 12: Phase III Activities			Task 13: Meetings and Coord.			Task 14: Project Admin and Man			Task 15: QA/QC			Task 16: Plat of Highways / Legal			Task 17: Geotech Invest - Walls		
		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							12	20.00%	15.60	12	12.00%	9.36						
Dir. Structural Engineering	76.13	40	23.81%	18.13	24	34.29%	26.10	24	40.00%	30.45	44	44.00%	33.50						
Senior Structural Manage	70.36	40	23.81%	16.75													4	50.00%	35.18
Structural Engineer I	33.50	16	9.52%	3.19													4	50.00%	16.75
Project Manager	58.56	16	9.52%	5.58	32	45.71%	26.77	24	40.00%	23.42	44	44.00%	25.76	8	50.00%	29.28			
Project Engineer	38.70	24	14.29%	5.53	8	11.43%	4.42							8	50.00%	19.35			
Design Engineer	31.68	32	19.05%	6.03															
Dir. Environmental Servic	56.84				6	8.57%	4.87												
TOTALS		168.0	100%	$55.21	70.0	100%	$62.16	60.0	100%	$69.47	100.0	100%	$68.62	16.0	100%	$48.63	8.0	100%	$51.93

Local Public Agency	County	Section Number
McHenry County Division of Transportation	McHenry	18-00482-00-BR

AVERAGE HOURLY PROJECT RATES

Exhibit E Cost Estimate of Consultant Services Worksheet Anniversary Raise

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Task 18: Structural Design - ComED																	
		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																		
Dir. Structural Engineerin	76.13	14	4.38%	3.33															
Senior Structural Manage	70.36	28	8.75%	6.16															
Structural Engineer I	33.50	98	30.63%	10.26															
Project Manager	58.56	36	11.25%	6.59															
Project Engineer	38.70	58	18.13%	7.01															
Design Engineer	31.68	86	26.88%	8.51															
Dir. Environmental Servic	56.84																		
TOTALS		320.0	100%	$41.86	0.0	0%	$0.00	0.0	0%	$0.00	0.0	0%	$0.00	0.0	0%	$0.00	0.0	0%	$0.00

Exhibit F

Workhour Summary

CONSULTING ENGINEERS

BLA, Inc.

333 Pierce Road, Suite 200 • Itasca, IL 60143

630 438 6400 • FAX 630 438 6444 • www.bla-inc.com

Millstream Road over Kishwaukee River / South Branch Kishwaukee River
EXHIBIT F - Workhour Summary

	Task and Description		Total Workhours	Prime	Jorgensen	SMC
Task 1	**Early Coordination and Data Review**					
	Review Existing Data		4	4		
	Site Visit		8	8		
		Subtotal:	**12**	**12**	**0**	**0**
Task 2	**Supplemental Surveys**					
	Horizontal and Vertical Control		12		12	
	Topographic Survey		43	8	35	
	Right-of-Way		8	8		
		Subtotal:	**63**	**16**	**47**	**0**
Task 3	**Utility Coordination**					
	Conflict Identification		12	12		
	Relocation Assistance		80	80		
		Subtotal:	**92**	**92**	**0**	**0**
Task 4	**Preliminary Site Investigation**					
	N/A		N/A			
		Subtotal:	**0**	**0**	**0**	**0**
Task 5	**Roadway Plans**					
	Sheets (See Sheet Summary)		1,150	1,150		
	Pavement Design		4	4		
	Compensatory Storage Design		40	40		
		Subtotal:	**1,194**	**1,194**	**0**	**0**
Task 6	**Structural Plans**					
	Sheets (See Sheet Summary)		3,258	3,258		0
		Subtotal:	**3,258**	**3,258**	**0**	**0**
Task 7	**Quantity Calculations**					
	Quantity Calculations		150	150		
		Subtotal:	**150**	**150**	**0**	**0**
Task 8	**Specifications and Special Provisions**					
	Specifications and Special Provisions		100	100		
		Subtotal:	**100**	**100**	**0**	**0**
Task 9	**Construction Estimate of Cost and Estimate of Time**					
	Estimate of Cost		16	16		
	Schedule		8	8		
	Estimate of Time		8	8		
		Subtotal:	**32**	**32**	**0**	**0**
Task 10	**PS&E Submittals**					
	Preliminary		16	16		

Millstream Road over Kishwaukee River / South Branch Kishwaukee River
EXHIBIT F - Workhour Summary

	Task and Description	Total Workhours	Prime	Jorgensen	SMC
	Pre-final	12	12		
	Plan-in-Hand Field Review	16	16		
	Final	8	8		
	Central Office	8	8		
	Disposition of Comments	24	24		
	Tree Removal Contract Preparation				
	Plans	40	40		
	Specifications and Special Provisions	24	24		
	Quantity Calculations and Estimate of Cost	16	16		
	Estimate of Time	4	4		
	Subtotal:	**168**	**168**	**0**	**0**
Task 11	**Permitting and Environmental Coordination**				
	Wetland Mitigation	16	16		
	Section 404 Permit	60	60		
	McHenry County Stormwater Management Permit	80	80		
	MLCSWCD Review	16	16		
	Floodway Construction Permit	8	8		
	NPDES Permit	8	8		
	ESR Clearance Update	8	8		
	Subtotal:	**196**	**196**	**0**	**0**
Task 12	**Phase III Activities**				
	Request for Information	16	16		
	Shop Drawing Review	80	80		
	Pre-Construction Meeting	8	8		
	As-Build Survey and Certification	208	40	168	
	Letter of Map Revision	24	24		
	Subtotal:	**336**	**168**	**168**	**0**
Task 13	**Meetings and Coordination**				
	LPA Initiation Meeting	8	8		
	IDOT Initiation Meeting	8	8		
	McHenry County P&D	8	8		
	USACE	8	8		
	MLCSWCD	8	8		
	IDOT Detour Committee Meeting	2	2		
	IDOT Pre-construction Meeting	8	8		
	LPA PreFinal Plan In Hand Meeting	8	8		
	Utility Coordination	12	12		
	Subtotal:	**70**	**70**	**0**	**0**
Task 14	**Project Administration and Management**				
	Project Setup	6	6		
	Monthly Invoices and Progress Reports	18	18		
	Project Coordination and Monthly Calls	18	18		
	Project Schedule Monitoring	18	18		
	Subtotal:	**60**	**60**	**0**	**0**
Task 15	**Quality Assurance/Quality Control**				
	QA/QC	100	100		

Millstream Road over Kishwaukee River / South Branch Kishwaukee River
EXHIBIT F - Workhour Summary

	Task and Description		Total Workhours	Prime	Jorgensen	SMC
		Subtotal:	**100**	**100**	**0**	**0**
Task 16	**Plat of Highways / Legal Description**					
	Plat / Legal Coordination		317	16	301	0
		Subtotal:	**317**	**16**	**301**	**0**
Task 17	**Geotech Investigation - Walls**					
	Coordination with Subconsultant Exhibits		73	8		65
		Subtotal:	**73**	**8**	**0**	**65**
Task 18	**Structural Design Elements - ComED**					
	Re-analyze beam design & framing		16	16		
	Re-submit TS&L for approval		24	24		
	Structural Alternatives - ComED		100	100		
	Drainage Modifications / ALDS Revisions		80	80		
	Minor Roadway Alignment Adjustments		100	100		
		Subtotal:	**320**	**320**	**0**	**0**
		Total:	**6,541**	**5,960**	**516**	**65**

Millstream Road over Kishwaukee River / South Branch Kishwaukee River
EXHIBIT F - Sheet Summary

Task 5 - Roadway Plans	**# Shts**	**Hrs/Sht**	**Total Hrs**
Cover Sheet	1	4	4
Index of Sheets and Highway Standards	1	4	4
General Notes	2	8	16
Summary of Quantities	6	8	48
Schedule of Quantities	6	8	48
Typical Sections	4	6	24
Alignment, Ties and Benchmarks	1	8	8
Removal Plan	2	32	64
Plan & Profile	4	40	160
Drainage and Utility Plan and Profile	4	40	160
Detour Plan and Notes	2	12	24
Stormwater Pollution Prevention Plan and Notes	1	24	24
Soil Erosion and Sediment Control Plan and Details	8	8	64
In-Stream Guideline Details	1	16	16
Grading Plan – Bridge and Channel	2	16	32
Plat of Highways	10	2	20
Pavement Marking and Signing Plan	2	16	32
Landscaping Plan	3	16	48
Structural Sheets			0
[add other sheets here as needed]			0
[add other sheets here as needed]			0
Detail Sheets	2	12	24
District One Details	5	2	10
Cross Sections	20	16	320
Subtotal:	**87**	**-**	**1,150**

Task 6 - Structural Plans	**# Shts**	**Hrs/Sht**	**Total Hrs**
General Plan & Elevation	2	40	80
General Data	4	40	160
Top of Deck Elevations	6	35	210
Top of Approach Slab Elevations	4	30	120
Superstructure Details	8	50	400
Diaphragm Details	2	40	80
Railing Details	6	30	180
Bridge Approach Slab Details	6	40	240
Framing Details	2	60	120
Beam Details	4	60	240
Abutment Details	8	30	240
Retaining Walls (6 walls, 4 sheets per)	24	24	576
Moment/Anchorage Slabs (6 slabs, 2 sheets per, +1 drain det.)	13	40	520
Pile Details	2	8	16
Pipe Drain Details	2	8	16
Soil Borings	18	2	36
Existing Plans	12	2	24
Subtotal:	**123**	**-**	**3,258**

Exhibit G

Sub-Consultant Backup

CONSULTING ENGINEERS

BLA, Inc.

333 Pierce Road, Suite 200 • Itasca, IL 60143

630 438 6400 • FAX 630 438 6444 • www.bla-inc.com

JORGENSEN & ASSOCIATES, INC.
LAND SURVEYORS
Est. 1990

March 7, 2022

Mr. Matthew Cesario, P.E.
BLA, Inc.
333 Pierce Road
Suite 200
Itasca, Illinois 60143

Re: McHenry County – Millstream Road Phase II Survey Proposal

Dear Mr. Cesario:

Enclosed, please find our proposal to prepare a supplemental topographic design survey, As-Built topographic survey, statutory plat of highways and legal descriptions for the referenced project.

I would like to thank you for considering Jorgensen & Associates for this project. We look forward to continuing our working relationship with your firm. Should you have any questions, comments or require any further information concerning our proposal, please feel free to call me at (847)356-3371.

Respectfully submitted,
Jorgensen & Associates, Inc.

Christian H. Jorgensen, P.L.S.
President

CHJ/pt

Enclosures

E:\BLA\McHenry Co\Millstream Rd\Phase II\Letter

SCOPE OF SERVICES

Topographic Survey

General: The topographic survey to include: structures, ground shots, roadway and shoulders, guardrail, utilities, locate trees 6" and larger and inverts within the project corridor.

Supplemental topographic survey of certain areas along Millstream Road and 300 feet along Kunde Road.

As-built topographic survey of 2 triple span bridges, including hydraulic sections of the channel and compensatory storage area.

Re-establish temporary bench marks and horizontal control points at the site. The project will be based on NAD '83(2011) and NGVD '88 datums.

Prepare "MicroStation" base file of the topographic survey and provide "GEOPAK" T.I.N.

The survey does not include the establishment of the existing R.O.W.

Land Acquisition Survey

General: Prepare a Plat of Highways and legal descriptions for 4 fee simple parcels, 2 fee simple and temporary easement parcels along the project corridor with the following permanent index numbers:

12-29-100-010
12-29-100-021
12-29-200-012
12-29-200-013
12-29-326-002
12-29-400-001

The project involves land surveying to reference the highways center lines to public land lines, location of property boundaries, preparation of a statutory plat of highways and legal descriptions, monumentation of the proposed right of way and highways center lines. The preparation and recording of "Monument Record" documents for all U.S. public land survey monuments referenced in the plat of highways.

Search for and locate boundary monumentation and locate appraisal topography on all affected parcels.

Research at County Recorder for any pertinent boundary documentation. Review title commitments, calculate parcel boundaries, proposed center line alignments and proposed right of way lines.

Prepare preliminary plat of highways (approximately 10 sheets) and prepare 8 legal descriptions.

Monument center line alignments, proposed right of way, section corners and quarter corners.

Prepare final plat of highways and legal descriptions, submit to client for recording.

Route: Millstream Road
Section: 18-00482-00-BR
County: McHenry
Job No.:

Exhibit "A"

Payroll Burden & Fringe Costs

	% of Direct Productive Payroll
Federal Insurance Contributions Act	11.98%
State Unemployment Compensation	0.18%
Federal Unemployment Compensation	0.13%
Workmen's Compensation Insurance	1.08%
Paid Holidays, Vacation, Sick Leave, Personal Leave	11.18%
Bonus	6.61%
Pension	0.91%
Group Insurance	38.11%
Total Payroll Burden & Fringe Costs	70.18%

Route: Millstream Road
Section: 18-00482-00-BR
County: McHenry
Job No.:

Exhibit "B"

Overhead and Indirect Costs

	% of Direct Productive Payroll
Business Insurance	4.90%
Depreciation	11.95%
Indirect wages and salaries	42.72%
Reproductive and printing costs	0.14%
Office Supplies	2.54%
Computer Costs	5.49%
Professional Fees	3.30%
Telephone	1.88%
Fees, license & dues	1.37%
Repairs and maintenance	0.82%
Business space rent	5.07%
Facilities - capital	0.74%
Travel - Meals	0.28%
Survey Supplies	1.94%
Automobile/travel expense	2.78%
Miscellaneous Expense	0.41%
Gain on sale of assets	(6.66%)
Postage	0.12%
Educational & Professional Registrations	0.24%
Recruiting	0.49%
Small Equipment Expense	0.27%
Total Overhead	80.79%

Illinois Department of Transportation

EXHIBIT E

COST ESTIMATE OF CONSULTANT SERVICES WORKSHEET

FIXED RAISE

Local Public Agency	County	Section Number
County of McHenry	McHenry	18-00482-00-BR

Consultant (Firm) Name	Prepared By	Date
Jorgensen & Associates, Inc.	Christian H. Jorgensen	3/7/2022

PAYROLL ESCALATION TABLE

CONTRACT TERM	**12**	**MONTHS**	**OVERHEAD RATE**	**150.97%**
START DATE	**3/7/2022**		**COMPLEXITY FACTOR**	
RAISE DATE	**9/7/2022**		**% OF RAISE**	**2.00%**
END DATE	3/6/2023			

ESCALATION PER YEAR

Year	First Date	Last Date	Months	% of Contract
0	3/7/2022	9/7/2022	6	50.00%
1	9/8/2022	3/7/2023	6	51.00%

The total escalation = 1.00%

BLR 05514 (Rev. 04/30/21)
Payroll Escalation

Local Public Agency	County	Section Number
County of McHenry	McHenry	18-00482-00-BR

MAXIMUM PAYROLL RATE **78.00**

ESCALATION FACTOR **1.00%**

PAYROLL RATES

Exhibit E Cost Estimate of Consultant Services Worksheet Fixed Raise

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Supervisor, P.L.S.	$45.00	$45.45
Survey Party Chief, P.L.S.	$31.50	$31.82
Instrument Operator	$23.75	$23.99
Cadd Surpervisor	$33.75	$34.09
Administrative Assistant	$24.00	$24.24

Local Public Agency: County of McHenry

County: McHenry

Section Number: 18-00482-00-BR

COST ESTIMATE WORKSHEET

Exhibit E Cost Estimate of Consultant Services Worksheet Fixed Raise

OVERHEAD RATE 150.97%

COMPLEXITY FACTOR 0

TASK	STAFF HOURS	PAYROLL	OVERHEAD & FRINGE BENEFITS	DIRECT COSTS	FIXED FEE	SERVICES BY OTHERS	TOTAL	% OF GRAND TOTAL
(1) Supplemental Topographic Survey	47	1,450	2,188	81	478		4,197	7.90%
(2) Land Acquisition Survey	301	10,825	16,343	635	3,572	2,850	34,225	64.43%
(3) As-Built Topographic Survey	168	5,062	7,642	325	1,670		14,699	27.67%
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
		-	-		-		-	
Subconsultant DL					0		-	
TOTALS	516	17,337	26,173	1,041	5,720	2,850	53,121	100.00%

43,510

Local Public Agency	**County**	**Section Number**
County of McHenry	McHenry	18-00482-00-BR

AVERAGE HOURLY PROJECT RATES

Exhibit E Cost Estimate of Consultants Services Worksheet Fixed Raise

SHEET 1 OF 1

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			(1) Supplemental Topographic Survey			(2) Land Acquisition Survey			(3) As-Built Topographic Survey								
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Supervisor, P.L.S.	45.45	113.0	21.90%	9.95	4	8.51%	3.87	100	33.22%	15.10	9	5.36%	2.43						
Survey Party Chief, P.L.S.	31.82	121.0	23.45%	7.46	16	34.04%	10.83	43	14.29%	4.55	62	36.90%	11.74						
Instrument Operator	23.99	121.0	23.45%	5.62	16	34.04%	8.17	43	14.29%	3.43	62	36.90%	8.85						
Cadd Surpervisor	34.09	157.0	30.43%	10.37	11	23.40%	7.98	111	36.88%	12.57	35	20.83%	7.10						
Administrative Assistant	24.24	4.0	0.78%	0.19				4	1.33%	0.32									
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
TOTALS		516.0	100%	$33.60	47.0	100.00%	$30.84	301.0	100%	$35.96	168.0	100%	$30.13	0.0	0%	$0.00	0.0	0%	$0.00

Route: Millstream Road
Section: 18-00482-00-BR
County: McHenry
Job No.:

Manhour Breakdown
Supplemental Topographic Survey Estimate

Kunde Road	± 300' =	± 0.057 mile
Millstream Road	+ 1,900' =	± 0.360 mile
Total Length	± 2,200' =	± 0.417 mile

1. Field – Topographic Survey

   a. Measure G.P.S. survey, traverse & level circuit
      6 hours x 2 men = 12 MH

   b. Locate existing topography
      10 hours x 2 men = 20 MH

   Sub-total Item #1 32 MH

2. Office – Compile Field Data

   a. Compute G.P.S. survey, traverse & level circuit
      2 hours x 1 man = 2 MH

   b. Edit & compile field data
      3 hours x 1 man = 3 MH

   Sub-total Item #2 5 MH

3. Office – Update Existing Topography Base Map

   a. Layout and drafting existing topography
      6 hours x 1 man = 6 MH

4. Office – Create T.I.N. & Contours

   a. Compute contours
      2 hours x 1 man = 2 MH

5. QC/QA

   a. Check topographic survey & contours
      2 hours x 1 man = 2 MH

Total All Items 47 MH

Route: Millstream Road
Section: 18-00482-00-BR
County: McHenry
Job No.:

Breakdown of
In House Direct Costs

Item

1. Field - Topographic Survey

    a. Trips to project site - 2 each
    ± 70 miles/trip x 2 trips = ± 140 miles
    ± 140 miles @ $0.58/mile = $ 81.20

Route: Millstream Road
Section: 18-00482-00-BR
County: McHenry
Job No.:

Manhour Breakdown
Land Acquisition Estimate

Length of Project

Millstream Road + 1,900' = + 0.360 mile

Total Length + 1,900' = + 0.360 mile

6 Parcels: 4 Fee Simple, 2 Fee Simple & Temporary Easement

1.	Pre-Survey Phase Research available records				
	a.	Title Co.	)		
	b.	Recorder's Office	)		3 MH
	c.	I.D.O.T.	)		
	d.	Utilities	)		
	e.	Private Surveyors	)		
	f.	Land Owners	)		1 MH
				Sub-total Item # 1	4 MH
2.	Reconnaissance Survey			2 Men	2 MH

3.	Project Survey Plan			± 2,640'/sheet - 2 sheets	
	a.	Alignment info	)		
			)		
	b.	Existing R.O.W. info	)		
			)		
	c.	Land line data	)		
			)		
	d.	Subdivision data	)	2 sheets @ 1 hr./sheet =	2 MH
				Sub-total Item #3	2 MH
4.	First Submittal Plat of Highways & Descriptions				
	a.	Ownership info	)		
			)		
	b.	Total holding boundaries	)		
			)		
	c.	Total holding area listing	)		3 MH
			)		
	d.	Private survey info	)		
			)		
	e.	Deed calculated closures	)		
	f.	Layout and drafting 60 hours x 1 man =		± 600'/sht. ± 4 sheets	60 MH
		Index Sheet/Cover Sheet 3 hours x 1 man =		1 sheet	3 MH
		Alignment sheets 2 hours x 1 man =		1 sheet	2 MH
		Total Holding sheets 12 hours x 1 man =		4 sheets	12 MH
	g.	Legal descriptions		8 descriptions	8 MH
				Sub-total Item #4	88 MH

5. Survey (Field)

a. Monument center line alignment
Millstream Road - 1,900' - 2 hrs. x 2 men = 4 MH

b. Monument & reference section & quarter corners
8 hours x 2 men = 16 MH

c. Monument proposed R.O.W. lines
32 hours x 2 men = 64 MH

Sub-total Item #5 84 MH

6. Survey (Office)

a. Compute traverse
8 hours x 1 man = 8 MH

b. Compute existing property & section lines
32 hours x 1 man = 32 MH

c. Compute existing utility easements
7 hours x 1 man = 7 MH

d. Compile appraisal topography
2 hours x 1 man = 2 MH

e. Compute center line alignment
1 hour x 1 man = 1 MH

f. Compute proposed R.O.W. & temporary easements
4 hours x 1 man = 4 MH

Sub-total Item #6 54 MH

7. Final Submittal Plat of Highways & Descriptions

a.	Final drafting ± 10 sheets 12 hours x 1 man =		12 MH
b.	Final descriptions 8 descriptions		2 MH
b.	Prepare & record Monument Records 3 Monument Records		6 MH
d.	Assembly of final papers		3 MH
		Sub-total Item #7	23 MH

8. QC/QA

a.	Check preliminary plats 10 sheets		33 MH
b.	Check preliminary legal descriptions 8 legal descriptions		3 MH
c.	Check final plats 10 sheets		7 MH
d.	Check final legal descriptions 8 legal descriptions		1 MH
		Total All Items	301 MH

Route: Millstream Road
Section: 18-00482-00-BR
County: McHenry
Job No.:

Breakdown of
In House Direct Costs

Item

1. Pre-Survey Phase

   a. Trip to McHenry County Recorder
   ± 50 miles/trip x 1 trip = ± 50 miles
   ± 50 miles @ $0.58/mile = $ 29.00

   b. Deeds & Monument Records = $ 120.00

   Sub-total Item #1 $ 149.00

5. Survey (Field)

   a. Trips to project site - 6 each
   ± 70 miles/trip x 6 trips = ± 420 miles
   ± 420 miles @ $0.58/mile = $ 243.60

7. Final Submittal Plat of Highways & Descriptions

   a. Trip to McHenry County Recorder
   ± 50 miles/trip x 1 trip = ± 50 miles
   ± 50 miles @ $0.58/mile = $ 29.00

   b. Record Monument Records
   3 Monument Records @ $43 = $ 129.00

   c. Plat of Highways Mylars
   10 sheets @ $5.00/sheet = $ 50.00

   d. Deliver Final Papers to District One office
   ± 60 miles/trip x 1 trip = ± 60 miles
   ± 60 miles @ $0.58/mile = $ 34.80

   Total All Items $ 635.40

Route: Millstream Road
Section: 18-00482-00-BR
County: McHenry
Job No.:

Breakdown of
Services By Others

Item

1. Pre-Survey Phase

    a. Commitments for Title Insurance
    6 Commitments @ $475.00 each = $ 2,850.00

Route: Millstream Road
Section: 18-00482-00-BR
County: McHenry
Job No.:

Manhour Breakdown
As-Built Topographic Survey Estimate

Millstream Road	± 1,750' =	± 0.331 mile
Total Length	± 1,750' =	± 0.331 mile

1. Field – Topographic Survey

    a. Measure traverse, level circuit & G.P.S. survey
    16 hours x 2 men = 32 MH

    b. Locate existing topography & inverts
    46 hours x 2 men = 92 MH

    Sub-total Item #1 124 MH

2. Office - Compile Field Data

    a. Compute traverse, level circuit & G.P.S. survey
    5 hours x 1 man = 5 MH

    b. Edit & compile field data
    7 hours x 1 man = 7 MH

    Sub-total Item #2 12 MH

3. Office - Create Existing Topography Base File

    a. Layout and drafting
    24 hours x 1 man = 24 MH

4. Office - Create T.I.N. & Contours

    a. Compute contours
    4 hours x 1 man = 4 MH

5. QC/QA

    a. Check topographic survey & contours
    4 hours x 1 man = 4 MH

Total All Items 168 MH

Route: Millstream Road
Section: 18-00482-00-BR
County: McHenry
Job No.:

Breakdown of
In House Direct Costs

Item

1. Field - Topographic Survey

    a. Trips to project site - 8 each
    ± 70 miles/trip x 8 trips = ± 560 miles
    ± 560 miles @ $0.58/mile = $ 324.80

Local Public Agency	County	Section Number
County of McHenry	McHenry	18-00482-00-BR

Exhibit C
Direct Costs Check Sheet

List ALL direct costs required for this project. Those not listed on the form will not be eligible for reimbursement by the LPA on this project.

	Item	Allowable	Quantity	Contract Rate	Total
☐	Lodging (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost (Up to state rate maximum)			
☐	Lodging Taxes and Fees (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual Cost			
☐	Air Fare	Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval			
☒	Vehicle Mileage (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum	1280	$0.58	$742.40
☐	Vehicle Owned or Leased	$32.50/half day (4 hours or less) or $65/full day			
☐	Vehicle Rental	Actual cost (Up to $55/day)			
☐	Tolls	Actual cost			
☐	Parking	Actual cost			
☐	Overtime	Premium portion (Submit supporting documentation)			
☐	Shift Differential	Actual cost (Based on firm's policy)			
☐	Overnight Delivery/Postage/Courier Service	Actual cost (Submit supporting documentation)			
☒	Copies of Deliverables/Mylars (In-house)	Actual cost (Submit supporting documentation)	10	$5.00	$50.00
☐	Copies of Deliverables/Mylars (Outside)	Actual cost (Submit supporting documentation)			
☐	Project Specific Insurance	Actual Cost			
☐	Monuments (Permanent)	Actual Cost			
☐	Photo Processing	Actual Cost			
☐	2-Way Radio (Survey or Phase III Only)	Actual Cost			
☐	Telephone Usage (Traffic System Monitoring Only)	Actual Cost			
☐	CADD	Actual cost (Max $15/hour)			
☐	Web Site	Actual cost (Submit supporting documentation)			
☐	Advertisements	Actual cost (Submit supporting documentation)			
☐	Public Meeting Facility Rental	Actual cost (Submit supporting documentation)			
☐	Public Meeting Exhibits/Renderings & Equipment	Actual cost (Submit supporting documentation)			
☒	Recording Fees	Actual Cost	3	$43.00	$129.00
☐	Transcriptions (specific to project)	Actual Cost			
☒	Courthouse Fees	Actual Cost	1	$120.00	$120.00
☐	Storm Sewer Cleaning and Televising	Actual cost (Requires 2-3 quotes with IDOT approval)			
☐	Traffic Control and Protection	Actual cost (Requires 2-3 quotes with IDOT approval)			
☐	Aerial Photography and Mapping	Actual cost (Requires 2-3 quotes with IDOT approval)			
☐	Utility Exploratory Trenching	Actual cost (Requires 2-3 quotes with IDOT approval)			
☐	Testing of Soil Samples	Actual Cost			
☐	Lab Services	Actual Cost (Provide breakdown of each cost)			
☐	Equipment and/or Specialized Equipment Rental	Actual Cost (Requires 2-3 quotes with IDOT approval)			
☐					
☐					
☐					
☐					
☐					
				Total Direct Costs	$1,041.40

SOIL AND MATERIAL CONSULTANTS, INC.

Office: 847-870-0544
Fax: 847-870-0661
us@soilandmaterialconsultants.com
www.soilandmaterialconsultants.com

March 7, 2022
Proposal No. 19,647
2nd Revision

Mr. Joel Ihde, P.E., S.E.
BLA, Inc.
333 Pierce Road, Suite 200
Itasca, IL 60143

Re: Geotechnical Investigation
Millstream Road
McHenry County, Illinois

Dear Mr. Ihde:

Submitted for your consideration is our proposal to provide the requested subsurface soil investigation, engineering evaluation and geotechnical report on the above referenced site.

Field Investigation

We propose the layout of 14 borings at the requested locations and in areas accessible to our truck mounted drilling equipment. We will take reasonable precautions to minimize surface and subsurface damage due to our operations. The bore holes will be backfilled with spoils and pavement areas patched with cold-patch asphalt. We cannot be responsible for the cost of any additional site restoration resulting from accessing and performing the investigation.

We will contact JULIE for location of public utilities. The location of private services or other below grade improvements is the responsibility of the property owner.

The borings will be power auger drilled and soils sampled using a split barrel sampler at intervals of 2.5 feet within 30.0 feet of the surface and at intervals of 5.0 feet below this depth. The proposed borings will extend to minimum depths of 25.0 feet. Additional boring depth and sampling may be provided if weak or unsuitable soil conditions are encountered. Borings may be terminated at shallower depths if refusal is encountered.

Laboratory Testing

Soil samples will be returned to our laboratory for review and tested to determine moisture content. Competent samples of cohesive soils will be tested further to determine dry unit weight and unconfined compressive strength. Additional testing may be provided based on the results of the field investigation and laboratory testing.

Scope of the CCDD Soil Assessment

The CCDD Soil Assessment will be conducted by True North Consultants, Inc. and will include a Historical and Regulatory Review along with soil sampling and analysis. True North has assumed collecting up to four (4) soil samples from the geotechnical borings and have discrete soil analytical testing performed as shown under the Schedule of Fees in this proposal. Laboratory analysis costs reflect a standard turn-around time of 7 to 10 days. The analysis can be expedited for a surcharge. Some facilities may require additional testing beyond which is proposed.

Upon receipt of analytical results, True North will issue a LPC #663 for the soils if they do not exceed the Maximum Allowable Concentrations (MACs) published in 35 IAC Part 1100. If any of the RCRA metal results exceed the MAC table values, then a SPLP will be run to determine if the value meets uncontaminated requirements (excluding arsenic). If the soil analytical results do not support this, then the soils will require landfill waste analysis for landfill disposal. Waste soil characterization and delineating non-CCDD soils are not included in this proposal.

Engineering Evaluation, Report

The field investigation and laboratory testing will be completed under the direction of a Registered Professional Engineer. Preliminary information will be available upon request. Upon completion of the investigation an engineering evaluation will be completed and a report prepared. The report will present our findings, evaluate the findings and present appropriate recommendations.

Charges

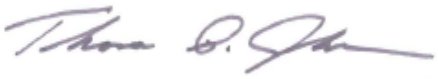
Our unit charges and the estimated total cost for the investigation are indicated on the attached Schedule of Fees. Final billing will be based on this schedule. If additional services are requested that are beyond the scope of the proposed investigation, they will be provided at our established unit prices.

Your consideration of this proposal is appreciated. The attached General Conditions are understood to be part of this proposal. If acceptable, please execute and return one copy to our office.

Should you have any questions concerning the scope of the investigation, please let us know.

Very truly yours,

SOIL AND MATERIAL CONSULTANTS, INC.



Thomas P. Johnson, P.E.
President

TPJ:dd

Proposal Accepted By:

Client _____

Street _____

Town _____ State _____ Zip Code _____

Phone ( ) _____ E-Mail Address_____

Signature _____ Position _____

Printed Name _____ Date _____

SCHEDULE OF FEES -- SUBSURFACE SOIL INVESTIGATION

Field

Boring Layout	8	hr.	$	99.00	/hr.	$	792.00
Utility Location	2	hr.	$	99.00	/hr.	$	198.00
Flagman (2-person crew)	Est. 32	hr.	$	290.00	/hr.	$	9,280.00
Mobilization	1		$	Lump	Sum	$	1,600.00
Drilling (14 @ 25')	350	ft.	$	14.00	/ft.	$	4,900.00
Split Barrel Sampling	140	ea.	$	10.00	ea.	$	1,400.00

Laboratory

Moisture Content Unit Weight Unconfined Compressive Strength	1		$	Lump	Sum	$	2,500.00
Organic Content	4	ea.	$	50.00	ea.	$	200.00
Sieve Analysis-washed	4	ea.	$	70.00	ea.	$	280.00
Hydrometer Analysis	4	ea.	$	95.00	ea.	$	380.00
Atterberg Limits	4	ea.	$	75.00	ea.	$	300.00

Engineering

Pre and Post Boring Meetings (if requested)	12	hr.	$	140.00	/hr.	$	1,680.00
Report – Senior Engineer (P.E.)	15	hr.	$	140.00	/hr.	$	2,100.00

Estimated Total Cost: $ 25,610.00

SCHEDULE OF FEES – CCDD TESTING

Field

Environmental Technician	8	hr.	$	110.00	/hr.	$	880.00
Field Supplies	1	day	$	330.00	/day	$	330.00

Laboratory

Discrete pH	4	ea.	$	20.00	ea.	$	80.00
Discrete VOCs	4	ea.	$	180.00	ea.	$	720.00
Discrete SVOCs	4	ea.	$	270.00	ea.	$	1,080.00
Discrete PCBs	4	ea.	$	105.00	ea.	$	420.00
Discrete Total Iron	4	ea.	$	105.00	ea.	$	420.00
Discrete RCRA Metals	4	ea.	$	105.00	ea.	$	420.00
TCLP of Metals (if necessary)	4	ea.	$	110.00	ea.	$	440.00
50% additional testing cost for changes between proposal and letting date (if necessary)	1	ea.	$	Lump	Sum	$	1,790.00

Report

PIP Evaluation	1	ea.	$	Lump	Sum	$	550.00
LPC 663 Certification	1	ea.	$	Lump	Sum	$	1,050.00
Updated PIP Evaluation / Environmental Database Review/663 form (if necessary)	1	ea.	$	Lump	Sum	$	550.00
Making request for pre-approval from CCDD facilities for soil acceptance (if necessary)	1	ea.	$	Lump	Sum	$	300.00
					Estimated Total Cost:	$	9,030.00

SPLP testing of the RCRA Metals over the MAC Table limits can be run at an additional cost of $110.00 each.

TERMS AND CONDITIONS

Soil and Material Consultants, Inc. (SMC) scope of work defined in the proposal was based on information provided by the client. If incomplete, inaccurate or if unexpected site conditions are discovered, the scope of work may change.

GEOTECHNICAL INVESTIGATIONS

Client will furnish SMC with right-of-access to the site. SMC will take reasonable precautions to minimize site damage due to its operations, but has not included in the fee the cost of restoration of any resulting damage. SMC shall not be liable for damage or injury due to encountering subsurface structures (pipes, tanks, utilities or others) not called to SMC's attention in writing or are not correctly shown on the drawings furnished by client or client's representative. If the client desires, SMC will restore any damage to the site and add the cost of restoration to the fee.

Field work, laboratory testing and engineering analysis will be performed in accordance with generally accepted soil and foundation engineering practices. Samples are retained in our laboratory for 30 days from date of report and then destroyed unless other disposition is requested. The data reported applies only to the soils sampled and the conditions encountered at each boring location. This does not imply or guarantee that soils between borings will be identical in character. Isolated inclusions of better or poorer soils can be found on any site. SMC will not be liable for extra work or other consequences due to changed conditions encountered between borings.

Any exploration, testing and analysis associated with the investigation will be performed by SMC for the client's sole use to fulfill the purpose of this Agreement. SMC is not responsible for use or interpretation of the information by others. The client recognizes that subsurface conditions may vary from those encountered in borings or explorations. Information and recommendations developed by SMC are based solely on available information and for the currently proposed improvement.

TESTING SERVICES

Client shall furnish SMC with at least one working day's notice on any part-time (less than 8 hours/day) job when field personnel are requested. SMC shall make reasonable effort to provide field personnel in a timely manner but reserves the right to schedule field personnel as deemed appropriate. Minimum charges will be billed when work cancellations are received after field personnel have left for the project site.

SMC personnel will provide a professional service based on observations and testing of the work of a contractor, subcontractor, or other service/material provider, as specifically requested. SMC field personnel will look for general conformance with project specifications, plans and/or soil report but does not accept the responsibility to control or direct the work of others. Discrepancies noted by SMC office or field personnel will be referred to client or client's representative.

Testing Services furnished by SMC are defined as the taking of soil and/or material tests at various locations and the making of visual observations relating to earthwork, foundations, and/or materials as specifically requested by the client and agreed to by SMC, and will be limited to those specifically agreed services. Such services will be performed by SMC using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable members of the profession practicing in this or similar localities.

Observations and testing of soils and/or materials by SMC in no way implies a guarantee or warranty of the work of the contractor, subcontractor, or other service/material provider. SMC's work or failure to perform same shall in no way excuse such contractor, subcontractor or other service/material provider from liability in the event of subsequently discovered defects, omissions, errors, deficiencies or failure to perform in accordance with the project plans and specifications. SMC field personnel shall not be responsible for superintendence of the construction process nor direction of the work of the contractor, subcontractor, or other service/material provider. SMC's work shall not include determining or implementing the means, methods, techniques, sequences or procedures of construction. SMC shall not be responsible for evaluating, reporting or affecting job conditions concerning health, safety or welfare.

Documents including but not limited to technical reports, original boring logs, field data, field notes, laboratory test data, calculations, reports of inspection and testing, geotechnical reports, technical reports, submittals and estimates furnished to the client or its agents pursuant to this agreement are not intended or represented to be suitable for reuse by the client or others on extensions of this project or on any other project. Any reuse without SMC's written consent will be at user's sole risk and without liability or legal exposure to SMC. User shall indemnify and hold harmless SMC from all claims, damages, losses and expenses including attorney's fees arising out of or resulting therefrom. To the maximum extent permitted by law, the Client agrees to limit SMC liability for clients' damages to $100,000 or the fee, whichever is lesser. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

Soil and Material Consultants, Inc. is a Professional Engineering Corporation. Engineering services are often completed by extension through technical staff. The unit rates presented in this proposal do not reflect charges associated with organized labor. Future agreements, if any, with organized labor will invalidate some of the unit rates presented. Required rate adjustments will be presented to the client for acceptance prior to providing services at the adjusted rates.

Services are invoiced monthly for the preceding period. Client agrees to pay each invoice within thirty (30) days of receipt and further agrees to pay interest on all amounts not paid at the rate of 2.0% per month, an annual rate of 24%, from the due date. Client agrees to pay all reasonable costs of collection including staff time, court costs, Attorneys' fees and related expenses, if this account becomes delinquent. Client agrees that reports furnished to the client but not paid for in full remain the sole property of SMC and will not be used for design, construction, permits, licensing, sales or other gain.

Exhibit H

QA/QC Plan

CONSULTING ENGINEERS

BLA, Inc.

333 Pierce Road, Suite 200 • Itasca, IL 60143

630 438 6400 • FAX 630 438 6444 • www.bla-inc.com

CONSULTING ENGINEERS
BLA, Inc.
333 Pierce Road, Suite 200 ▪ Itasca, IL 60143
630 438 6400 ▪ FAX 630 438 6444 ▪ www.bla-inc.com

(Month, Day, Year)

Ms. Samantha Dittrich, P.E.
Design Engineer III
McHenry County Division of Transportation
16111 Nelson Road
Woodstock, Illinois 60098

Re: Millstream Road Bridge Replacement
SN: 056-3022 (056-4022) / SN: 056-3023 (056-4023)
McHenry County, Illinois
Section No.: 18-00482-00-BR
Job No.: D-91-001-19
Project No.: 8M8X(096)

Subject: QA/QC Statement for Phase II Engineering Submittal

Dear Ms. Dittrich:

We, at BLA, Inc. are submitting the *(item of submittal)* today and we would like to provide the following QA/QC statement.

"BLA, Inc. certifies that the *(item of submittal)* has been reviewed and found to be in accordance with the approved QA/QC plan."

Should you have any questions or require additional information please contact us at (630) 438-6400.

Sincerely,

BLA, Inc.

Matthew Cesario, P.E.
Vice President

Daniel Bruckelmeyer, P.E.
CEO / President / QAQC Reviewer

CONSULTING ENGINEERS
BLA, Inc.
333 Pierce Road, Suite 200 ▪ Itasca, IL 60143
630 438 6400 ▪ FAX 630 438 6444 ▪ www.bla-inc.com

BLA, INC.

QUALITY ASSURANCE/QUALITY CONTROL PLAN

Millstream Road Bridges
Replacement Project
SN 056-3022 / 056-4022 (North)
SN 056-3023 / 056-4023 (South)
McHenry County
Section No.: 18-00482-00-BR

QUALITY ASSURANCE/QUALITY CONTROL PLAN

BLA, Inc. is responsible for the accuracy and completeness of the plans and related documents prepared for our clients. Quality work is the responsibility of each person involved in a project. The assurance of quality requires the use of standardized quality control procedures for checking and reviewing reports, computations and plans required for individual projects. For this purpose, the following quality control/quality assurance plan has been established.

This document describes the procedures to be utilized to verify, independently check and review all contract documents, plans, quantities, calculations, and related documents prepared as part of the BLA Phase II design engineering project.

I. PROJECT TEAM

Project Principal

Daniel Bruckelmeyer reviews the project from a budget point of view and gets involved if problems arise from manhours or engineering.

Project Manager

Matthew Cesario is responsible for every aspect of the project and client coordination / communication. Assigns personnel where needed and gives input at all critical points of the project.

Director of Structural Engineering

Joel Ihde manages the day-to-day structural design activities overseeing the structural design team.

Client Liaison

Ms. Sami Dittrich – McHenry County Division of Transportation (MCDOT)

Technical Support Staff

Project Engineer – Greg Ellwanger assists in the day to day work for all civil disciplines. This consists of plan sheet preparation, detailed design and calculations, and the development of the specifications. Also, internal day to day engineering markups, review, and revisions are included in this task.

Project Structural Engineer – Tom Janicke and his staff provides the detailed structural calculations and design for the bridges and the retaining walls. They are also involved in the structural plan sheet development, internal day to day engineering markups, review and revisions.

Design Engineer – Duncan McGlincy will assist the Project Engineer in performing their engineering tasks and in the preparation of project plans and contract documents.

Project Structural Engineer – Tom Janicke reviews all the day to day work and is also involved in the actual structural design, plan preparation, quantity take-offs, and calculations as required for the structural aspects of the project.

Environmental Engineer – Ed Lebbos will be responsible coordinating and assisting in the environmental permitting aspects of the project.

Outside Consultants

Jorgensen & Associates, Inc.
Soil and Material Consultants, Inc.

QA/QC Reviewer

Dan Bruckelmeyer will not be involved in the day to day preparation of documents. QA/QC reviewer will assure that the QA/QC plan is followed. The QA/QC reviewer's comments along with the disposition of comments and required checklists will be submitted to the County at every milestone review.

II. WRITTEN PROJECT PLAN

A. PROJECT SCOPE

BLA will prepare the contract plans, specifications, calculations, and estimates for Final PS&E of the replacement of the bridge carrying Millstream Road over the Kishwaukee River and the bridge over the South Branch Kishwaukee River. Also included is utility coordination, meetings, permitting, and Phase III assistance.

Plans, permits, and documents will be submitted to the County for review and approval prior to submitting to the required agency for review and approval.

B. SUBCONSULTANTS ROLE

Jorgensen & Associates, Inc. will be BLA's sub-consultant on this project for supplemental survey and the as-builts. The sub-consultant responsibilities are as follows:

TASK 2:

1. Horizontal and Vertical Control
2. Topographic Survey
3. Stake Right-of-way

TASK 12:

1. As-Built Survey and Certification

TASK 16:

1. Plat of Highways / Legal Description

Key personnel at Jorgensen & Associates, Inc.

NAME	PHONE NUMBER
Christian H. Jorgensen	(847) 356-3371

Soil and Materials Consultant, Inc will be BLA's sub-consultant on this project for the geotechnical investigation and the CCDD / LPC 663. The sub-consultant responsibilities are as follows:

TASK 17:

1. Structural Geotechnical Investigation – Retaining Wall
2. CCDD / LPC 663

Key personnel at Soil and Materials Consultant, Inc.

NAME	PHONE NUMBER
Thomas Johnson	(847) 870-0544

C. STANDARDS AND GUIDELINES

1. IDOT Standards Specifications for Road and Bridge Construction, January 1, 2022
2. IDOT Design Manual
3. IDOT Highway Standards
4. IDOT District 1 Standards
5. IDOT Policies and Procedures Manual
6. IDOT Drainage Manual with Appendix
7. McHenry County Stormwater Ordinance
8. Manual on Uniform Traffic Control Devices, 2009
9. AASHTO - A Policy on Geometric Design of Highways and Streets, 2011
10. AASHTO - Roadside Design Guide, 2011
11. IDOT Supplemental Specifications and Recurring Special Provisions, current edition
12. IDOT BDE Special Provisions
13. IDOT District 1 Special Provisions
14. Soil Conservation Service Technical Release 20 Users Manual
16. IDOT Bridge Manual-2012
17. AASHTO LRFD Bridge Design Specifications
18. IDOT BDE Manual (Current Edition)
19. IDOT All Bridge Designers Memorandums

D. TIME SCHEDULE

In house quality assurance reviews are scheduled throughout the duration of the project prior to any report or plan submittal. The Project Schedule is included in the contract package.

E. MANHOUR BUDGET

The Manhour Summary is included in the contract package.

F. RESOURCE MATERIAL

1. Phase I Project Report
2. Topographic Survey (Jorgensen)
2. Existing Bridge Plans
3. Previous Bridge Condition Reports (MCDOT)
4. Survey Notes (Jorgensen)
5. Flood Insurance Studies (FEMA)
6. Utility Plans (Dry Utility Atlases obtained by JULIE)
7. McHenry County Maps
8. Accident History
9. Traffic Counts (MCDOT)
10. Location Drainage Study / Hydraulic Report

G. ESTIMATED CONSTRUCTION BUDGET

The anticipated total construction cost for this project is $7,500,000

H. SPECIAL CONDITIONS

CalTRANS 75 Rail will be used for bridge rail with the bridge being designed to accommodate the CalTRANS 76 Rail, as it would be utilized once approved. The typical bridge section is to be 40 feet wide.

III. PROJECT CONTROL

A. PROCEDURES

1. Engineering and Environmental Studies/Plan Preparation

a) Scoping/Field Checks

On projects traversing/baseline work has always been verified by checking into a known monument and examining field measured closures vs. allowable closure errors. Any unacceptable closures will result in a reevaluation of the traverse usually requiring additional field work. Also, bench run accuracy is either confirmed by shooting a fore sight on a known monument and checking the shot elevation vs. the known elevation. When the control has been verified and/or established, field data collection can commence.

Once field shots have been substantiated, data reduction can be carried out in the office which includes elevation/contour interpolation and boundary calculations. All tasks performed are then plotted and compared to any existing topographic maps to examine conformance to general terrain grades. Not only does the plot verify field accuracy, but also benchmark reliability.

b) Contents of Submittals

An important element of the QA plan is the Quality Control (QC) procedure. These procedures will include the independent reviews by Dan Bruckelmeyer at various stages of the project. For this design project, the reviews include the following elements:

- Completeness and accuracy of the contract plans and documents
- Constructability of the various project elements
- Sufficiency of the provisions as they relate to the pay items
- Accuracy of pay items and special provisions
- Compliance with contractual commitment

The following steps will be appropriate for this design project with respect to each milestone. After each step of this "plan of action" a form attesting that this step has been completed, will be filled out and signed.

Preliminary Plan Preparation Phase

Roadway / Structural

Step 1
Initiate the preparation of the plans

- ☐ Plot all survey from CADD tapes and field notes
- ☐ Complete plan set sheet set up

- Detail all plan view sheets, cross sections, and structural sheets

Step 2

Matthew Cesario and Joel Ihde and key team members will conduct a review of the prepared material. Items to be reviewed will include:

- All items of work are indicated on the plan and cross sections
- Right of way requirements, including temporary easements for total project
- Deep cut and fill areas, including high embankments
- Special or Non-Standard Details
- Existing and proposed typical sections
- Traffic detour plan
- Pavement marking and signing and striping plans
- Tree removals (advance contract)
- Drainage elements, including pipe and culverts
- Temporary drainage during construction
- Review soil borings for unsuitable areas
- All permit requirements
- Constructability of all aspects of the design

Step 3

Matthew Cesario and Joel Ihde will list all pay items and conduct review. Items to be reviewed will include:

- Construction details of special pay items
- Reasonableness of incidental items
- Breakdown of quantities and pay item

At this point, the Project Team will concentrate on:

- Adequacy of pay items
- Any missing pay items
- Comparison to quantities

Step 4

Conduct plan review by both project team members and Dan Bruckelmeyer. Items to be reviewed will include:

- Compliance with contract
- Compatibility between design elements
- Need for agreements
- Right of way needs
- Completeness of project
- Constructability of principal elements of the project including retaining wall, profile increase, and grading
- Adequacy of pay items

Dan Bruckelmeyer will discuss his review comments with Matthew Cesario and Joel Ihde. A response to the comments will be prepared. Any unresolved items should be brought to MCDOT's attention.

Step 5
Dan Bruckelmeyer will fill out the Statement Form to attest that Step 4 has been completed.

Step 6
Submit the Preliminary Plans to MCDOT for review.

Prefinal Plan Preparation Phase

Step 1
Provide a disposition of MCDOT's comments

Step 2
Arrange for a field review meeting

Step 3
Arrange for a meeting(s) to discuss comments and resolve all outstanding issues.

Step 4
Complete disposition of comments.

Step 5
Complete the plans, details and quantities calculations.

Show all quantities on plans with locations detailed either on plan sheets or on schedules.

Step 6
Check plans. Item to be reviewed by all members of the Project Team will include:

- Details
- Quantity calculations
- Constructability impacts

At this point, the review by Matthew Cesario and Joel Ihde will concentrate on:

- Plan details for completeness
- Adequacy of quantities and specifications
- Breakdown of plan quantities
- Comparison of specifications to plan details and pay items
- All design calculations, analysis and quantities have been checked
- Utility conflicts resolved and Agreement Information provided

Matthew Cesario and Joel Ihde will check review comments, adjust plan details and quantities as necessary, verify that all elements of project fit together and prepare a disposition of the MCDOT comments and the BLA Internal QA/QC (Dan Bruckelmeyer) review comments. Any unresolved items should be brought to MCDOT's attention.

Step 7
Dan Bruckelmeyer will fill out form and attest that Step 6 has been completed.

Step 8
Submit the Prefinal Plans to MCDOT and IDOT for review.

Final Plan Preparation Phase

Step 1
Review comments, provide disposition. Discuss unresolved items with MCDOT and IDOT. Revise plans as necessary.

Conduct final quantities check and make sure all plan quantities and summary of quantities check.

Make sure again that all commitments have been completed.

Check for final completion date/number of working days.

Check if normal or expedited schedule for completion date contracts.

Check Incentive/Disincentive clause.

Complete final plans.

Step 2
Final Plan check by Matthew Cesario and Joel Ihde will be made.

Step 3
Dan Bruckelmeyer will fill out form and attest that the above steps have been completed.

Step 4
Submit Final Plans to MCDOT and IDOT

c) Special Provisions

Special Provisions are prepared by the project engineer and manager. The plans will be reviewed by these individuals for items that aren't in the coded pay item book or those items that are identified as on asterisk in the coded pay item book. These special pay items can be described and qualified in the plans by a note, an illustrated detail or a special provision. Depending on the nature

of the item, one or any combination of the 'qualifiers' can be used. If it is decided that a provision is necessary, that item will be researched for a proper explanation and description.

2. Design Calculations

Quantities will be given special attention when the time comes for performing this work. Each design engineer will be responsible for his own quantities based on the task they performed during design. The quantity calculations will be performed immediately after the design is complete with the person's full name shown on the calculation sheets. The information would then be transferred to the project quantity calculation file which would be organized in the same order as the Summary of Quantity sheet. At this point the quantities would be transferred from the calculation file to the plan, schedule and summary of quantity sheets. When complete, the project manager will check the calculation file items with the plan, schedule and summary of quantity sheets to verify quantity conformance. In general, the project engineer with the help of the project manager will go over all the pay items to make sure everything has been picked up; in addition to periodically reviewing the results as they get finished. All information is gathered and reviewed by the project engineer and tabulated with the project manager's assistance. Once drafted, the project engineer and project manager will check all summary of quantity plans for conformity.

BLA understands that MCDOT can check our calculation file periodically and that the calculation file will be submitted at each milestone.

3. Computer Inputs/Outputs

BLA usually has computer results for the following information with its corresponding processes for verifying results.

1) Program – Structural Design.
   Verification – Structural calculations are verified by cross referencing the input and output data. The output is verified by cross referencing hand calculations and design details
2) Program - Proposed geometry for horizontal and vertical alignment.
   Verification - The horizontal information is overlaid on the existing topo and checked for conformance at tie-in points. The horizontal data is also printed and cross referenced with the project report information.
   Vertical geometry is verified by printing a hard copy of the output and cross referencing it with the project report.
3) Program – Bridge Hydraulics
   Verification - Hydraulics is verified by cross referencing the input data. The output, however, is verified by engineering experience in this field.

4. Documentation of Directives - Meeting Minutes and Telephone Communications

BLA conducts three types of meetings during the course of a project. 1) A meeting is held to discuss all projects within the office; 2) Other internal meetings that are job specific; 3) Various meetings with the client and the project section team leaders. The meetings that are important to

BLA are the internal job specific discussions. At these meetings, we discuss specific tasks and deadlines with the whole project team including sub-consultants. As the work progresses, meetings are set up biweekly to review progress and questions designers might have. If someone is behind on a task, people will be added immediately to reduce the risk of being delayed. That's why BLA holds meetings to review all projects at the same time. That way we can make a decision on what people can be moved to help the problem at hand. If someone can't be pulled off another project, usually we'll move people from one task to the next. In addition, meetings with our client are also important because they inform us of certain issues that are important to the client.

At these meetings, timing is always discussed and considered the most important subject. Each task is associated with a deadline and as the different milestones are passed, they eventually make up the set of plans at the time of submittal. Before a project starts, there needs to be a clear understanding of what needs to be submitted. Once this has been established, we know what tasks need to be finished and in what order. Timing is everything and the only way we have been able to control this is by meeting on a regular basis and discussing the progress of the different tasks and taking immediate action to solve the problem (if there is any).

All meetings and conversations with MCDOT/IDOT are documented within three (3) days and given to the project engineer for staff directives. Internal meetings are done verbally where staff takes their own notes.

5. Dissemination of Correspondence and documents

All correspondence and documents that are done through regular mail are reviewed in the following order:

1. Chief Executive Officer
2. President
3. Vice President
4. Project Manager
5. Assistant Project Manager
6. Project Engineer

Faxes also have the same order, however, depending on who the fax is sent to, the person above the hierarchy may not see the fax unless that person feels it is important to do so.

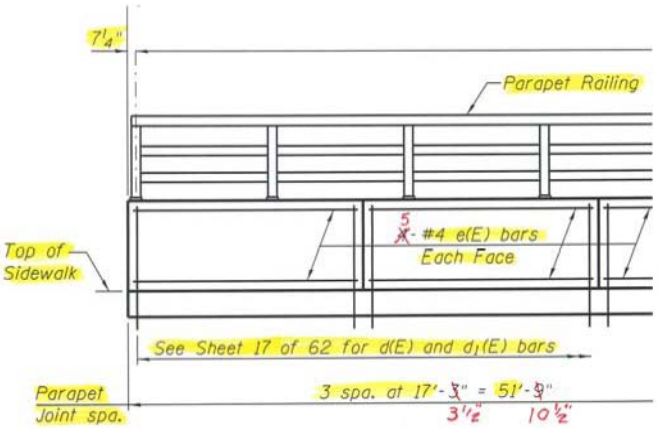
Depending on what the document is, the project engineer will distribute that information to a staff engineer who will be affected the most.

B. STRUCTURAL PLAN AND DESIGN CHECKING POLICIES AND PROCEDURES

In keeping with Company policy and sound engineering practice, all design analyses, drawings, specifications, cost estimates, other contract documents, and reports produced by BLA are to be checked prior to submission to clients. Detailed procedures for the checking of various types of documents are defined in the Quality Assurance Procedures Manual. Staff involved in design are expected to be familiar with these procedures.

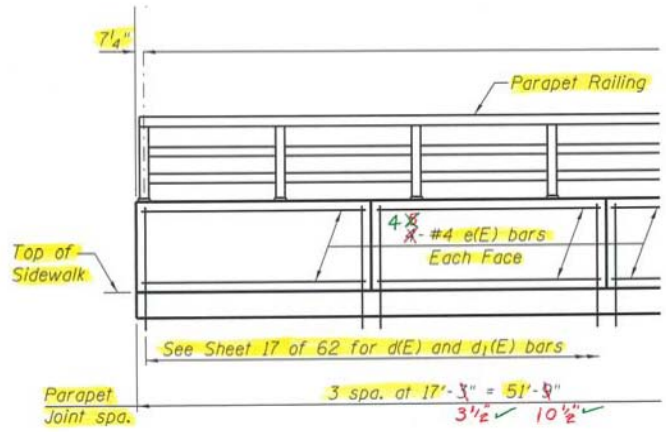
The project manager or project engineers for specific disciplines appoint experienced engineers as checkers. Checkers are expected to perform their checking Independent of the engineers who prepared the design. The checker should have experience equal to or greater than that of the designer. A set of check prints will be formalized to document the checking process.

Different colors are used to identify the various stages of the checking process.

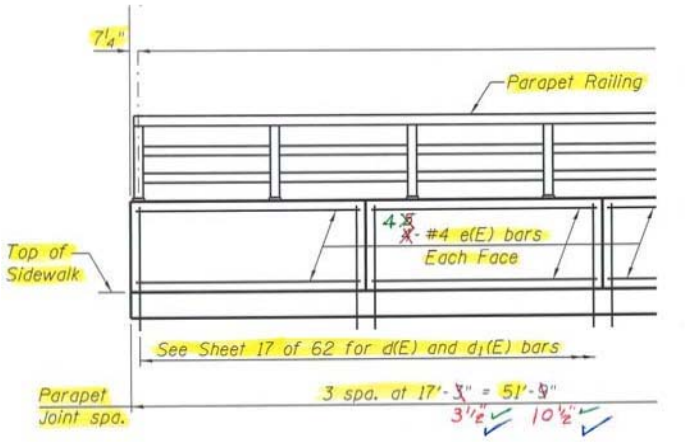


- Yellow--Is used by the checker to indicate agreement, and all lines, dimensions, and written text are to be yellowed in if correct.

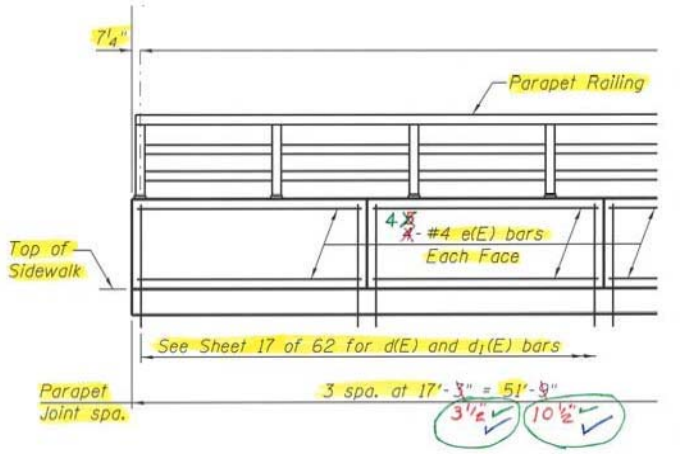
- Red--is used by the checker to Indicate corrections and additions.



- Green--is used by the backchecker to indicate approval of checker's changes, plus additional changes as agreed to by checker.



- Blue--is used to indicate that changes to the document original have been made



- Green--is also used to verify that the change to the document original is correct.
- Black--is used for non-record comments or instructions.

CHECKING OF CALCULATIONS

As design analyses, quantity take-offs and bills of quantities are developed, copies are made to serve as check prints. Check prints are independently checked by designers who are technically competent in the procedures required for the task. Because of the progressive nature of designs, the checker must consult with the designer about differences that have been found. The checker is expected to review design criteria, specifications and rationale pertinent to the design as well as the calculations themselves. Upon completion of the checking process, the checker should initial both the check print and the original calculation sheet in the space provided.

CHECKING OF SPECIFICATIONS, AND OTHER CONTRACT DOCUMENTS

The written text of specifications, cost estimates, and other contract documents must be checked on a line-by-line basis in the same manner that design analyses and drawings are checked. As the process takes place, correlation with design details and drawing notes must be verified. Upon completion of each stage, those participating in the checking process are to sign the check print stamp on the first page of each section of the specification, cost estimate, or other contract document.

CHECKING OF DRAWINGS

As drawings for a design are completed, check prints of the original drawings are prepared; they are checked by an engineer technically competent to review the specific discipline involved. Drawings must be checked for adherence to the design analyses, accuracy, adequacy of delineation and notation and interface with other design elements. In the interest of efficiency and accuracy, as few checkers as practical should be used during this process

As the checker, the backchecker, the person who makes the corrections, and the person who verifies that corrections have been made complete the process, they initial the check prints and title blocks of each original drawing. Use of colors in the checking process for drawings is illustrated above.

REVIEW OF REPORTS

All proposals, studies, reports, technical memoranda, instruction manuals and procedures to be provided to a client are to be reviewed by a minimum of two people prior to their final typing. Review prints are to be prepared and circulated for comment and sign-off to the disciplines and have contributed to the document.

Each reviewer is responsible for reviewing his or her own discipline's contributions and assuring that there are no conflicts with interfacing parts of the document. A corrected copy is then to be submitted for editorial review and final sign-off by the originator before production. It is essential that major project reports be subjected to peer review to ensure that findings and recommendations are in keeping with Company standards and the state of the art. While the text of reports and similar documents is not subject to yellow-line checking procedures, calculations, charts, graphs or exhibits in the documents are subject to checking

C. PROJECT RECORDS

Project records will be legible, identifiable and retrievable. Records will be protected from damage and loss; Matthew Cesario will be responsible for routing, maintaining, accessing, transferring, and long term storage are specified.

Project records will include:

1) Informational Records
2) Field Records
3) Data Compilation
4) Data Interpretation Records
5) Calculation and Computer Records
6) Telephone Call Records and email
7) Draft and Final Reports
9) Engineering Plans and Contract Documents
10) QA/QC Records
    a) Contract
    b) QA/QC Plan
    c) All necessary forms/check sheets
    d) QA/QC review comments with disposition
    e) QA/QC correspondence with IDOT
    f) QA/QC correspondence with MCDOT

Compliance Statement

This Quality Assurance plan will ensure that the project will meet or exceed the goals established by the client. A QA/QC compliance letter will be submitted with each milestone submittal of the project.