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SECTION 2 - SCOPE OF WORK

The CONSULTANT agrees to perform, at the direction of the DEPARTMENT, the services described below:

Complete Plans, Specifications and Estimates (including Structure Plans) for the reconstruction of the Interstate 80 and IL 178 Interchange at Utica.

The design and preparation of contract plans for the PROJECT shall be done as set forth below:

A. GENERAL PURPOSE, REQUIREMENTS AND OBJECTIVES

The CONSULTANT shall provide the DEPARTMENT with plans, specifications and estimates, PS&E, adequate for competitive bids and a contract for the construction of the PROJECT. The CONSULTANT shall provide all services necessary to prepare PS&E as enumerated in Sections B, C, D and E below. The Bureau Chief responsible for contract plan work is the ENGINEER OF DESIGN AND ENVIRONMENT.

B. BASIC DATA

The CONSULTANT shall gather, evaluate and coordinate existing information and data necessary to prepare detailed construction contract plans and shall:

REVIEW LOCATION DATA AND MEET WITH THE DEPARTMENT

Review the data and findings generated during Phase I. Meet with the DEPARTMENT and agree on procedures to use in updating the data and preparing PS&E.

SURVEYING

1. Perform pick-up surveys necessary to supplement survey information provided by the DEPARTMENT.

SURVEYING ACCURACY

Comply with the requirements for accuracy and closure on established horizontal and vertical monuments as follows:

1. The CONSULTANT will not be required to tie the centerline to existing centerline control or establish State Plane Coordinate values.
2. All basic level lines shall be closed between monumented bench marks and third order closure (before adjustment) shall be obtained.
3. In all cases where it is not feasible to close horizontal or vertical surveys between existing monuments, it will be necessary to prove the accuracy of the survey by closing the CONSULTANT'S own traverse.
4. The CONSULTANT shall comply with an Act to provide for the perpetuation of land survey monuments

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PLAN DEVELOPMENT CRITERIA

Prepare proposed plan development criteria and obtain the DEPARTMENT'S written approval, including:

1. Structure Report and TS&L plans. The DEPARTMENT will furnish approved TS&L plans.
2. Borings, Analysis and Soils Report. The DEPARTMENT will furnish all soils information.

CENTERLINE SURVEY PLATS

The DEPARTMENT will furnish Centerline Survey Plats.

C. PRELIMINARY DESIGN PLANS

Upon receipt of written approval of the proposed criteria and procedures, the CONSULTANT shall prepare preliminary plans which will ultimately be refined as final contract plans for the PROJECT as follows:

PRELIMINARY AND PRE-FINAL ROADWAY PLANS

Prepare and submit for approval preliminary roadway plans which shall be arranged and numbered in accordance with Chapter 63 of the Bureau of Design and Environment Manual. Preliminary Plans will include the following as appropriate to the project:

1. Cover Sheet
2. Highway Standards, General Notes, & Project Commitments
3. Summary of Quantities
   - Preliminary Submittal – List pay items. Quantities not required.
   - Pre-Final Submittal – List pay items and provide quantities.
4. Typical Cross Sections
5. Schedules of Quantities
6. Alignment, Ties and Benchmarks
7. Plan and Profile Sheets
8. Staging Plans (046-0098 only)
9. Erosion Control Plans
10. Right-of-Way Plans (to be provided)
11. Lighting Plans
12. Structure Plans
13. Details
14. Cross Sections
15. Special Provisions

STRUCTURE PLANS

Prepare structure plans for all structures designed by the CONSULTANT and submit them to the DEPARTMENT for review.

UTILITY ADJUSTMENT

The DEPARTMENT will coordinate with the utility companies. The CONSULTANT will be responsible for plotting existing utilities as accurately as possible including horizontal and vertical locations from the information provided to the DEPARTMENT by the utility company.

FIELD AND OFFICE PLAN CHECK

Preliminary plans shall be subject to a joint plan-in-hand field inspection by engineering representative of the CONSULTANT and DEPARTMENT. As a result of this or prior inspections, any necessary adjustments or modifications of the plans, not substantially affecting the scope, complexity or character of the work or corrections to the plans shall be considered a normal part of the engineering services.

D. FINAL CONTRACT PLANS

Upon approval of the preliminary design and plans, the CONSULTANT shall:

CONTRACT PLANS AND SCALE

Contract plans shall be as required by Bureau of Design and Environment Manual, Chapter 63 unless otherwise instructed by the DISTRICT ENGINEER. Plans shall show all necessary information in adequate detail to permit construction stakeout and to indicate and delineate all details necessary for the construction of the complete facility.

PLAN DETAIL SHEETS

Prepare detailed plans, including profile and cross section sheets, at an appropriate scale for all design features requiring additional detailed design information, such as: the geometrics of interchanges and intersections; local and service road treatment; CONSULTANT-designed major and all minor structures; drainage facilities; contoured interchange plans showing proposed grading; and details covering appropriate appurtenances and other special features. Structural steel shop drawings, formwork and falsework drawings are not part of the CONSULTANT'S design requirements. Information shown on the contract plans shall be in sufficient detail for fabrications and erection of structures.

CONSTRUCTION SECTIONS AND PLAN REQUIREMENTS

The complete PS&E shall be assembled into Construction Sections as directed by the DISTRICT ENGINEER. The plans shall be prepared in accordance with the policies of the DEPARTMENT which satisfactorily meet the provisions of FA PG Chapter I, Subchapter G, part 630, Subpart B.

TABULATION OF QUANTITIES

Prepare and tabulate detailed quantity estimates of roadway and structure items.

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SPECIAL PROVISIONS TO SPECIFICATIONS

Prepare technical specifications, special provisions and other construction contract documents as required to supplement available standard specifications and contract provisions.

RIGHT-OF-WAY DOCUMENTS

All right of way plans will be furnished by the DEPARTMENT. The CONSULTANT will put the provided right of way plan sheets onto base sheets and include in the plans.

E. SUBMITTALS

The CONSULTANT will furnish the originals and a reasonable number of prints of all necessary plans and documents, as determined by the DEPARTMENT, including the following:

1. Supplemental Survey - original field books and one copy (electronic or photocopy).
2. Roadway Work Submittals
   a. Preliminary Submittal
      - 10 sets of quarter size plans, 10 sets of Special Provisions, and a CD with Microstation files of plans. Include a list of potential utility conflicts, QC/QA Certification Statement and other documents in accordance with the QC/QA plan.
   b. Pre-Final Submittal
      - 5 sets of full size plans, 10 sets of quarter size plans, 10 sets of Special Provisions, and a CD with Microstation files of plans. Include a list of potential utility conflicts, QC/QA Certification Statement and other documents in accordance with the QC/QA plan.
   c. Final Submittal
      - 1 set of full size originals (cover sheet, general notes and summary of quantities mylar, remainder should be paper), 6 sets of full size prints, 4 sets of quarter size plans, 4 sets of Special Provisions, and a CD with Microstation files of plans. Include a list of potential utility conflicts, QC/QA Certification Statement and other documents in accordance with the QC/QA plan.
3. Bridge Work Submittals (both structures)
   a. Plan development outline
   b. Pre-final Submittal -- 3 sets of quarter size plans to Bureau of Bridges and Structures.
   c. Design Computations
      - Structure design computations (1 set for Bridge Office)
      - Design quantity computations for structure (2 sets); one for District, one for Bridge Office
   d. Final Submittal -- 3 sets of quarter size plans to Bureau of Bridges and Structures.

4. Quantity calculation files - original and 1 copy; indexed and organized in numerical order as related to the Summary of Quantities.
5. CAD files consisting of all the plans as outlined in Section 2 of this Agreement are required to be transmitted to the Illinois Department of Transportation. The Illinois State Plane Coordinate System should be used when the data is represented by continuous sections in its correct orientation. Relative coordinate systems can be used if they are approved by the IDOT project engineer. It is the responsibility of the CONSULTANT to ensure IDOT CAD compatibility.
6. The preferred media transfer of these files is with the use of CD-ROM's, although 10 or fewer 3-1/2 inches diskettes in DOS format may be used. Hardcopy plots will be provided by the CONSULTANT on (Vellum, Mylar). If existing cross section data is required to be transferred, this information will not be represented in CAD files, but will be transmitted via diskette or CD in ASCII format, using the draft Interim format. The CONSULTANT is required to follow the same procedures that the Department uses in order to ensure compatibility. Only MicroStation and Geopack Version 8.5.x DGN formatted files will be transferred between the Department and consultants. When receiving computer data from the Department, the CONSULTANT will be responsible for maintaining the integrity of the information provided. (See "Computer-Aided Design Drafting: Electronic Data Transfer Standards")

F. ITEMS TO BE FURNISHED TO CONSULTANT

The DEPARTMENT shall furnish the following to the CONSULTANT for his/her use in performing the work under this AGREEMENT:

1. Project Report
2. Bridge Condition Report
3. Drainage Report
4. TS&L plans
5. Utility plan mark-ups
6. Available microfilm plans
7. Available soils information
8. Right of way plans
9. Available survey information
10. Available aerial photography

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SECTION 3 - PROJECT SCHEDULE

Commencement/Schedule. The CONSULTANT shall commence work within 5 Calendar Days after date of Authority to Proceed. The Work shall be completed and delivered to the DEPARTMENT as set forth below and/or shown on the attached project schedule.

Preliminary roadway plan submittal within ____ Calendar Days after Authority to Proceed.

Prefinal roadway plans with all pay items and Special Provisions within ____ Calendar Days after approval of the preliminary roadway plans.

Complete PS&E within ____ Calendar Days after date of approval of final structure plans and prefinal roadway plans.

Design and miscellaneous calculations and quantity calculation book of the project shall be submitted to the District Office within ____ days from final submission of plans.

Unforeseen Delays. For purposes of administering Section 2.21c of the Standard Agreement Provisions for Consultant Services, the fee was negotiated anticipating that the work would be completed by _____, which includes review time by the DEPARTMENT.