

# **OVERVIEW OF THE ASSIGNMENT**

## **CHAPTER 100**

## **101 ASSIGNMENT MEETING**

After a Consulting Engineer has been selected to design a project for the Department, the Manager of Consultant Design will request the Consulting Engineer to attend an Assignment Meeting.

The purpose of the Assignment Meeting is to familiarize the Consulting Engineer with the project to be designed, discuss the scope of services in detail, discuss affirmative action requirements, provide a draft copy of the agreement and request a proposal for design services.

### **101.01 DESCRIPTION OF THE PROJECT**

The location, limits, classification and other pertinent data relative to the project will be discussed and defined at the meeting. The Consulting Engineer will be given available information already developed for the project, such as planning reports, public hearing transcripts and planning maps. The Department will identify any known unusual design problems which may be encountered.

The Department will designate the Project Number to be assigned to each Construction Contract; these project numbers shall be used on all pertinent documents and correspondence.

### **101.02 BASIC PROJECT ASSIGNMENT**

The Consulting Engineer will develop a complete set of plans, specifications and estimates, in accordance with the procedures contained in this manual, and the other documents referenced at the assignment meeting and stipulated by Agreement. The Consulting Engineer will furnish the qualified personnel, equipment, office space and supplies, except as described hereinafter, to accomplish this assignment.

The Consulting Engineer will make such investigations and additional field surveys, when survey is included in the assignment, or request such survey when not included in the assignment, as may be necessary to obtain supplementary data for estimating and design purposes. The Consulting Engineer shall make such studies as may be required to prepare a complete design in accordance with the standards hereinafter described or referenced.

The Department may elect to have certain tasks performed by personnel other than the Consulting Engineer. These items may include surveying, soils engineering, hydraulic analysis, design of traffic appurtenances, preparation of permits.

**101.03      AFFIRMATIVE ACTION**

The Consulting Engineer must comply with the Department's Affirmative Action policies, as more fully described in Section 205 (Affirmative Action).

An Affirmative Action Plan or Policy Statement, as required, must be submitted by the Consulting Engineer and approved by the Department before an authorization to proceed with the assignment can be given. All other forms must be submitted as necessary.

The Department's Screening Committee will assign a goal for Disadvantaged Business Enterprise (DBE) participation on each project being designed by a Consulting Engineer. The assigned percentage is to be applied to the total amount paid to the Consultant, including, but not limited to survey, preliminary engineering, preliminary design, final design, review of shop plans, consultation during construction, soil borings, environmental studies, extra work and direct costs. Failure to comply will result in a financial penalty equal in dollars to the short-fall of the required goal. The penalty may be waived if the Consultant can demonstrate, to the Department's satisfaction, that extreme and unavoidable circumstances were the cause of the non-compliance.

On some projects, the Screening Committee may assign a goal for Small Business Enterprises (SBE) instead of DBE's. The Department maintains a list of currently certified DBE's. This information is available through our Office of Contract Compliance. The SBE listing is maintained by the Department of Economic Development.

The Department shall enforce this program and monitor compliance as more fully described in Section 202.07 (Subconsultant Invoice Summary Sheet).

**101.04      SCOPE OF WORK**

After the Assignment Meeting, the Consulting Engineer shall prepare and submit a written scope of work to the Department. After solicitation and receipt of comments, the Department may require additional meetings to discuss the scope of work with the Consulting Engineer and various Department units that have project involvement. This will

give the opportunity to further discuss the scope of work prior to submitting comments back to the Consulting Engineer.

**101.05      FEE PROPOSAL**

After approval of the scope, the Consulting Engineer shall prepare and submit a fee proposal to the Department's Negotiations Committee for the cost of engineering services to perform the work for a given project in accordance with the guidelines set forth at the Assignment Meeting.

The Consulting Engineer shall submit the fee proposal on a form supplied by the Department, a sample of which can be obtained from your Project Engineer. The proposal form may be revised for special assignments but must be approved by the Department before submittal of a man-hour proposal.

Immediately following the completion of fee negotiations, the Consulting Engineer shall submit to the Department a letter detailing the revisions to the scope of services made during the negotiations process or a letter stating that the scope did not change.

**101.06      AGREEMENT**

The Consulting Engineer will be provided with a draft copy of a Standard Agreement at the Assignment Meeting.

Once a design fee has been negotiated, the Department will prepare and process the Agreement. One of the following forms of Agreement will normally be used:

1.      **Lump Sum** - The total fee is not subject to any adjustment on the basis of the Consultant's cost experience in performing the scope of services
2.      **Cost Plus Fixed Fee** - The total fee is based on cost-reimbursement plus a negotiated fee for profit that is fixed at the inception of the Agreement

The Agreement will include the following pertinent information:

1.      Generic scope of work
2.      Calendar days to complete the work
3.      Fee payment provisions
4.      Audit requirements
5.      Insurance requirements and forms
6.      Subcontracting and DBE/SBE requirements
7.      Extra work definitions

8. Statutory requirements
9. Termination
10. Indemnification/governmental immunity clauses

A current Affirmative Action Plan must be on file with the Office of Contract Compliance prior to consummating an agreement. Corporations, Limited Liability Partnerships and Limited Liability Companies must be registered with the Secretary of State. Corporations must be registered with the Professional Engineer's Board and Architectural Board. Joint registration is required if practicing engineering and architecture. If the firm is a Partnership or Sole Proprietorship, individual(s) must be appropriately licensed. The individual signing the Agreement must have written authorization to do so on behalf of the Corporation or Partnership.

Any comments or questions the Consulting Engineer has concerning the format of the Agreement should be addressed immediately to the Project Manager.

If a conflict arises between the Agreement and any of the referenced documents, the Agreement shall take precedence.

## **102 MATERIAL TO BE FURNISHED BY THE DEPARTMENT**

Below is a sample list of material to be furnished by the Department to the Consulting Engineer. The Consulting Engineer's activities should conform to this material. The requirements of a particular assignment and the availability of specific material will be defined at the assignment meeting for each specific project.

### **102.01 GENERAL MATERIAL FURNISHED AT THE ASSIGNMENT MEETING**

1. "Consulting Engineers Manual"
2. "Standard Specification for Roads, Bridges and Incidental Construction (Form 814A/815) and Supplemental Specifications"
3. "Highway Design Manual"
4. "Location Survey Manual"
5. Specifications for Aerial Photography and Photogrammetric Mapping
6. Specifications for Checking Photogrammetric Mapping

7. "Policies and Procedures for Property Maps"
8. Guide for Preparation of 13a-57 Plans
9. "Bridge Design Manual"
10. Bridge Design Standard Practices
11. "Drainage Manual"
12. Bridge Scour Analysis - Technical Approach
13. "Water Resources Coordination and Permit Processing Manual"
14. "On-Site Mitigation for Construction Activities"
15. "Soils and Foundations Guide for Design by Consultant Engineers and Sample Contract Forms"
16. "Manual of Traffic Control Signal Design"
17. Utility Mailing List
18. "A Policy on the Accommodation of Utilities on Highway Rights of Way"
19. Quality Control Checklist
20. Standard Roadway Drawings and List of Road Standards
21. Design Aids (Factors for Estimating Quantities)
22. Bid Description Master File
23. Weighted Unit Prices
24. Product Use Status Lists
25. Index of Recurring Special Provisions and Index of Guide Special Provisions
26. "CADD Manual"
27. MicroStation file package for Conn. D.O.T. projects
28. Design/Constructability Review guidelines

**102.02      PROJECT SPECIFIC MATERIAL FURNISHED AT THE**  
**ASSIGNMENT MEETING OR AS IT BECOMES AVAILABLE**

1. Environmental Documents
2. Planimetric Maps
3. Topographic Maps
4. Cross Sections of existing ground, if survey is prepared by ground methods
5. Planning Sketches
6. Traffic Volume Diagrams

7. Soils Data
8. Any available reports, studies, investigations, etc. pertinent to the assignment
9. Consulting Engineer's Proposal Form
10. Property Maps
11. Soils Report, if not included in the Consulting Engineer's assignment
12. Hydraulics' Report, if not included in the Consulting Engineer's assignment
13. Traffic Appurtenance Plans, if not included in the Consulting Engineer's assignment

### **103 REFERENCE MATERIAL**

The Consulting Engineer's activities shall conform to the following reference material and/or those materials identified in the Agreement:

1. Connecticut Department of Transportation directives in the form of "Consulting Engineers General Memoranda"
2. Connecticut Department of Transportation, "Construction Manual" and Construction Advisories
3. U.S. Department of Transportation, Federal Highway Administration, "Federal-Aid Policy Guide", December 9, 1991 and all subsequent revisions thereto.
4. Hydraulic Engineering Circulars
5. "Connecticut Guidelines For Soil Erosion and Sediment Control"
6. Connecticut Public Utility Control Authority, Rules and Regulations concerning clearances on Railroads
7. "Public Service Facility Policy and Procedures for Highways in Connecticut"
8. All publications of the American Association of State Highway and Transportation Officials (AASHTO) including, "A Policy on Geometric Design of Highways and Streets"
9. All publications of the National Transportation Research Board (NTRB) including, "Highway Capacity Manual (Special Report 209)"
10. "Manual on Uniform Traffic Control Devices"
11. "American Standard Practice for Roadway Lighting"
12. The Institute of Electrical and Electronic Engineers and the National Electrical Manufacturer's Association Requirements
13. "The National Electrical Code"
14. Rules and Regulations of the National Fire Protection Association and applicable State Fire Code

#### **104 MATERIAL TO BE FURNISHED BY THE CONSULTING ENGINEER**

The consulting engineer shall furnish the qualified personnel, equipment, office space and supplies to perform the field and office work necessary for the complete design of the project, including the necessary drafting and estimating operations, within the time period indicated in the Agreement. The Consulting Engineer shall submit material to the Department in accordance with the requirements of Chapter 300 (Design Development).

#### **105 CONTROL OF THE WORK**

The Department will advise the Consulting Engineer in writing of the procedures to be followed when communicating with the Department. Normally, all written correspondence will be addressed to the Manager of Consultant Design. A Highway Project Engineer and a Bridge Project Engineer, if necessary, will be assigned to the project; they will monitor operations of the Consulting Engineer. All routine matters should be discussed with the appropriate Project Engineer.

The Project Engineer will make visits to the Consulting Engineer's office to review the plans as the design progresses. Department representatives will be allowed immediate access to the Consulting Engineer's design quarters in order to review the design and observe the manpower and personnel being utilized.

The Consulting Engineer's design will be subject to the review and approval of the Department. Periodic submissions and review meetings will be held, as described in Chapter 300 (Design Development).

The Project Engineer may arrange a pre-review meeting with the Consulting Engineer and Department representatives to discuss design guidelines and material required for submissions.

During the performance of the work, the Consulting Engineer may receive supplemental or revised information from the Department which should be incorporated into the design. If the Consulting Engineer concludes that any of these supplemental requests constitute extra work, as defined in Section 203 (Extra Work), the Consulting Engineer should follow the procedures outlined therein.

## **106 RELATIONSHIP WITH OTHER AGENCIES**

The Department will furnish the Consulting Engineer with all available basic requirements for the design of structures, relocated streets, interchanges and incidental construction. The Consulting Engineer will supplement the furnished data by such field surveys, or request such survey if not included in the assignment, as may be necessary for the design of the project. The Consulting Engineer shall confer where necessary with Railroad and Utility Companies during the design of facilities that are to be maintained by agencies other than the Department.

The Department is responsible for coordination with municipalities, except for utility matters. Any meetings, information or policy determinations required by the Consulting Engineer from a municipality shall be requested through the Department.

The Consulting Engineer may begin coordination with the Railroad and Utility Companies upon the companies' receiving, from the Department, authorization to proceed with preliminary engineering for the project under design. The Consulting Engineer will receive a copy of this notification to the Railroad and Utility Companies.

The Department should be kept informed of all coordination between the Consulting Engineer and the agencies noted above; the Project Engineer should be invited to all meetings, a copy of all written correspondence should be directed to the Manager of Consultant Design and the Project Engineer should be kept informed of other general coordination.

The Consulting Engineer shall also coordinate activities with Consulting Engineers assigned to adjacent projects to ensure a compatible and continuous design.

## **107 ATTENDANCE AT MEETINGS AND PUBLIC HEARINGS**

The Consulting Engineer shall attend periodic meetings and public hearings related to the design of the project at the request of the Department. The Consulting Engineer shall be represented by the minimum number of personnel of the appropriate level to adequately address the subjects that may be discussed. If questionable, representation shall be discussed with the Project Engineer prior to the meeting.

### **107.01      DESIGN STAGE**

Review meetings will be arranged by the Department following certain submissions, as described in Chapter 300 (Design Development). The Consulting Engineer shall attend these meetings. The Consulting Engineer is also required to attend additional meetings at which design details will be a topic of discussion.

### **107.02      PUBLIC HEARINGS**

The Consulting Engineer will, when requested, attend Design Public Hearings and Environmental Public Hearings related to the design of the project and may be required to make the design presentation if so directed.

### **107.03      CONSTRUCTION STAGE**

If requested, the Consulting Engineer will attend the Pre-Construction Conference. The Consulting Engineer may also be requested to attend construction meetings.

## **108      RESPONSIBILITY FOR ACCURACY OF WORK**

The Consulting Engineer shall assume full responsibility for the accuracy of all products of engineering work produced under the Agreement with the State, including any supplements thereto. The Consulting Engineer shall indicate acceptance of this responsibility by affixing the Consulting Engineer's signature and Connecticut Professional Engineer's Seal on the Title Sheet of the construction drawings so produced.

Any reviews performed by and approvals given by the Department at various stages of design will not relieve the Consulting Engineer of responsibility for the accuracy of work. If the Consultant disagrees with a comment resulting from a review, the Consultant shall incorporate the comment into the design, but may disclaim responsibility for this comment in writing to the Department as soon as the comment is received.

In the event of errors, omissions, oversights or apparent neglect on the part of the Consulting Engineer, it will be the firm's responsibility to provide necessary corrective action, whether it be during design or construction, at no cost to the State. In addition to the above corrective action, the consulting firm shall reimburse the State for all expenses incurred by the State in corrective work and all expenses associated with corrective

measures undertaken by the Contractor.

#### **109 ENTRY UPON PRIVATE PROPERTY**

It is the responsibility of the Consulting Engineer to obtain written permission to enter private property, as an agent of the Department, from all owners or occupants of property involved in the survey, geological investigations or otherwise required to complete the assignment, prior to entering the property.

The Consulting Engineer shall advise the property owner of their intention to enter upon the property, describe the operations to be performed and the reason for the operations. The Consulting Engineer will then request the property owner to sign a right-of-entry-letter. The Department will provide right-of-entry form letters upon request. Non-resident property owners, who cannot be reached in person, shall be contacted by letter. To preclude the possibility of the property owner returning the letter directly to the Department, it should be attached to a letter prepared on the Consulting Engineer's letterhead. The letter should explain that the Consulting Engineer is responsible to the Department for the project concerned. Tenants should be informed prior to entering the property, although their permission need not be requested unless they are the agent of the owner.

If the property owner gives oral permission but will not sign the right-of-entry letter, the Consulting Engineer shall complete the right-of-entry letter, with the notation that oral permission only was granted. This notation shall also contain the name of the representative who actually interviewed the owner and the date of the interview. A confirming letter shall be mailed to the property owner by certified mail, within 24 hours. The Consulting Engineer shall maintain a file of signed right-of-entry letters until the work is complete. The file shall be forwarded to the Department with the final submission unless directed otherwise.

If the property owner refuses to grant entry, the file for the owner shall be forwarded to the Department, requesting that the appropriate action be taken. The file should contain all correspondence, dates of personal interviews and the name of the person interviewing the property owner. Complete information will simplify the action to be taken by the Department and expedite the entry onto the property. The Department will advise the

Consulting Engineer when it is legally permissible to enter the property.

The Consulting Engineer shall use care so that no unnecessary damage results from entry onto the private property. Damage claims shall be referred to the Department for investigation.

The Consulting Engineer shall assume responsibility for obtaining all necessary permits and clearance for entry onto any properties subject to security regulations.

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