

CHAPTER 3: DESIGN

CHAPTER 3: DESIGN

2. The Designer shall prepare a site-specific Stormwater Pollution Prevention Plan (SWPPP) to be submitted to TDEC. In collaboration with the Owner, the Designer shall prepare a Notice of Intent (NOI) for construction activity with stormwater discharge and submit to TDEC. The preparer's qualifications shall be as required by the CGP. The approved NOI and SWPPP shall be included in the Project Manual.
 3. The Designer shall coordinate and perform site assessments at each outfall, as required. The Contractor will be required to perform twice weekly inspections.
 4. The Designer shall engage the Campus MS4 Permit contact to review plans for completeness and overall Best Management Practices effectiveness. The C44 Stormwater Plan Review Checklist provided in Appendix 1 shall be completed and submitted to the Owner prior to bidding. The Designer shall collect, review and maintain copies of the C62 Stormwater Site Audit Checklist, as provided in Appendix 1, completed monthly by the Owner or its qualified agent.
 5. The Designer shall provide a written statement that the Construction General Permit is ready for termination of coverage and coordinate the Notice of Termination with the owner and TDEC.
 6. The Designer shall provide as built certification that the installation is in substantial compliance and provide a stormwater operation and maintenance plan.
- D. Local Authorities having jurisdiction to provide permits and inspections on similar local and private projects are to also be engaged in the Owner's projects, regardless of the State's sovereign immunity. Submit complete signed, sealed, final sets to all local authorities at the earliest appropriate opportunity and before assignment of a bid date. The cost for the plan review fee is paid by the Designer and reimbursed by the Owner.
- E. Federal Construction Regulations may apply to projects that are partially or fully funded by Federal agencies. When federal funds are included in the project, the Designer shall coordinate with the Owner to incorporate the construction requirements, including but not limited to, the Davis-Bacon Wage Act and the Buy American Act for construction materials.

3.03 OWNER CONSULTANT REVIEWS

- A. Drawings and specifications (for applicable projects) may require a review by the Owner's third party consultant for ADA, building envelope, stormwater and commissioning. Written Designer responses to all consultant comments are required for each third party review. Submit responses to the consultant and Owner. Any drawing revisions required as a result of the reviews must be made prior to bid.
- B. Prior to contacting the consultants, verify with the Owner which consultant reviews are applicable.
- C. The cost for the services provided by the specialty consultants is paid by the Owner unless the project includes a specialty consultant as basic services in the Owner - Designer Agreement.

CHAPTER 3

CHAPTER 3: DESIGN

1. A fully developed and communicated design concept as specified in the Agreement.
 2. A site plan with contours, applicable cross sections, and definition of extent of site disturbance and demolition.
 3. Design Development Phase space efficiency and cost analysis as described below.
 4. Significant typical design details.
 5. Summary descriptions for materials, equipment, and building system with preliminary construction specifications.
 6. Design Development Phase HPBr implementation.
 7. Design Development Phase coordination for SFMO review and TDEC Storm Water Permit.
 8. Design presentation to the SBC (Early Design Phase or EDP), if applicable.
- B. Design Development Phase Space Efficiency and Cost Analysis:
1. Precisely calculate the GSF, NASF, and ER of the developed design. Develop a summary of changes from the Schematic Design Phase design with a brief description of the influences causing the change.
 2. Use an experienced and qualified cost estimator to prepare the construction cost estimate as required by the Agreement which shall be based on material quantity take-offs and current industry pricing for the midpoint of the planned project construction period with application of escalation factors as appropriate. Additionally, apply the developed design's GSF to the previously developed Cost/GSF estimate and compare the resultant amount to the construction cost estimate.
 3. Resolve any inconsistencies between the Bid Target, the construction cost estimate, ER, and quality levels requirements.
 4. Provide this analysis to the Owner in writing along with a summary of the construction cost estimate as shown on F32 Designer's Cost Estimate Summary provided in Appendix 1.
- C. The Owner will inform the Designer of the specific requirements for the Designer to make a design presentation (Early Design Phase or EDP) to the State Architect and to the SBC in Nashville. The Owner may request that a rehearsal presentation be made to the Owner prior to the SBC presentation. Presentation requirements are specific to each project but may include the following.
- 1.

CHAPTER 3: DESIGN

- b. A site plan showing relationships to site features and adjacent structures
- c. Floor plans
- d. Elevations or perspective (preferred)
- 4. Project Summary:
 - a. Purpose of project, brief project description, and general program spaces, along with overall square footage
 - b. The site, its location, and the results of geotechnical investigations and other test reports
 - c. The facility plan, relation to Master Plan, and major functional relationships of the building
 - d. The systems used for foundation, structure, walls, roof, windows, finishes, plumbing, HVAC, and electrical service
 - e. Energy efficiencies and applicability of the HPBr
 - f. Fire protection systems, barrier-free accommodations, and other special features contributing to the solution
 - g. Commissioning scope, if required
 - h. Efficiency analysis of gross, net, and usable square footage
 - i. SBC approved Bid Target versus Designer's construction cost estimate.
 - j. Building cost estimate and cost per square footage
 - k. Site cost estimate
 - l. Anticipated construction start date and completion date and compliance with schedule

3.09 CONSTRUCTION DOCUMENT PHASE

- A. Specific requirements for Construction Document Phase Basic Services may include, but are not limited to, the following services.
 - 1. Plan for the Construction Schedule
 - a. Whenever possible, the construction Contract Time shall be planned to run without imposed schedule impacts such as interruptions, sequences, or dependencies.
 - b. If such schedule impacts are unavoidable then accommodations for these impacts shall be made in the Bidding Documents and reviewed with the Owner early in the Construction Document Phase.
 - c. Establishing construction phases is a viable accommodation for a schedule impact. Designer services for phased construction schedules shall include the control of construction commencement and/or acceptance through phase-specific Notices to Proceed, Substantial Completion inspections, and Certifications for Payment.
 - 2. Plan Alternates as Required and Approved
 - a. The use of Alternates requires review and approval by the Owner. When

CHAPTER 3: DESIGN

necessary, Alternates are used to protect the Bid Target and improve the chance for an awardable bid.

- b. When authorized by the Owner, Alternates shall be established, evaluated, and awarded according to OSA Policy.
3. The use of Allowances and Unit Prices requires review and approval by the Owner.
4. Prepare a Project Manual following the guidance in Chapter 4.
5. Prepare required drawings including, unless otherwise approved, a title sheet, location map, and a list of drawings.
6. Complete a C38 Bid Documents

CHAPTER 3: DESIGN

Or

- b. Use the same cost estimator who prepared the construction cost estimate in the Design Development Phase to update the construction cost estimate for

CHAPTER 3: DESIGN

5. Submit Construction Documents for Owner approval.

3.11 TEAM EVALUATIONS FOR DESIGN PHASE

In accordance with State requirements as found on the Office of the State Architect website, the Owner will initiate the process of team evaluations.

END OF CHAPTER