

CONSULTANT DESIGN DELIVERABLE GUIDELINES



Facilities Maintenance Division
3101 SE Inner Loop
Georgetown, TX 78626

Design services shall be conducted in Phases as outlined herein. Depending on project scope, not all items apply. Depending on project complexity and scope, Phases may be consolidated to expedite design delivery. Rejection procedures are outlined at the end of this document.

SCHEMATIC DESIGN PHASE

The interim deliverable early in this phase shall be used to document and validate project requirements and allocated construction budget.

This deliverable shall consist of the following PDF documents:

- 1) Opinion of probable cost to validate or modify preliminary construction budget provided by County.
- 2) Detailed design narrative to validate or modify Preliminary Scope of Work provided by County.
- 3) Initial design delivery schedule.

The deliverable at the end of this phase represents approximately 30% of the design effort and shall be of sufficient detail to show how the users' functional and technical requirements will be met.

This deliverable shall consist of the following PDF documents:

- 1) Budget Analysis
 - a. If self-performed, provide an updated opinion of probable cost.
 - b. If utilizing a professional cost estimator, participating in a CMAR or Design-Build project, coordinate with Cost Estimator or General Contractor to provide a preliminary cost estimate based upon schematic design information.
- 2) Design narrative
 - a. include modifications to Preliminary Scope of Work provided by County.
 - b. include preliminary engineering calculations for ALL disciplines required for project scope.
- 3) Schematic Specifications
 - a. include completed Cover Sheet with draft Table of Contents for ALL disciplines required for project scope.
- 4) Schematic drawing set for ALL disciplines required for project scope
 - a. Sheet size shall not exceed ANSI-D (22x34) at 150 dpi max.
 - b. PDF documents shall be of emailable size (i.e. 10MB max.)
 - c. include completed Cover Sheet with draft Index of Drawings for ALL disciplines required for project scope and applicable code compliance list.
 - d. See specific minimum requirements for each discipline (if required for project scope):

Civil:	Provide concept Site Plan with grading and roadway layout
	Determine water supply and wastewater service
	If septic system is required, determine system type and size
Structural:	Determine concept structural system(s)
Architecture:	Plans, Elevations, overall Sections marked for Detail Sections
	Block-out window, door, finish and wall type schedules
Electrical:	Determine lighting type(s)
	Determine electrical distribution type(s)
	Review drawings for adequate space for electrical system(s)
	Initiate contacts with electric and telephone service providers
Mechanical:	Determine HVAC type(s)
	Review drawings for adequate space for HVAC system(s)
Plumbing:	Verify adequate sanitary sewer fall from building elevation
IT / Security:	TBD

- 5) Updated design delivery schedule.

DESIGN DEVELOPMENT PHASE

The deliverable at the end of this phase represents approximately 60% of the design effort and is intended to verify that the drawings, design analysis, specifications, and cost estimate are proceeding in a timely manner and that the design criteria and previous review comments have been correctly interpreted.

This deliverable shall consist of the following PDF documents:

- 1) Budget Analysis
 - a. If self-performed, Architect shall provide an updated opinion of probable cost
 - b. If utilizing a professional cost estimator or participating in a CMAR project, coordinate with Cost Estimator or General Contractor to provide a detailed cost estimate based upon design development information.
- 2) Design Analysis developed to approximately 60% completion
- 3) Red-lined marked-up specification sections for ALL disciplines required for project scope.
- 4) Approximately 60% complete drawings including those addressing construction phasing
 - a. Sheet size shall not exceed ANSI-D (22x34) at 150 dpi max.
 - b. PDF documents shall be of emailable size (i.e. 10MB max.)
 - c. See specific requirements for each discipline (if required for project scope):

Civil:	Provide refined Site Plan with grading, roadway and parking
	Establish license / service agreements for water and wastewater
	If septic system is required, submit permit application to Wilco OSSF
Structural:	Provide preliminary design of structural systems
	Assist in obtaining Geotech borings
Architectural:	Noted Plans, Elevations, and Sections
	Floor, wall, roof Sections marked for Details
	Draft window, door, finish and wall type Schedules
Electrical:	Light fixtures located on drawings
	Receptacles located on drawings
	Panels located on drawings
	Circuits laid-out in single-line form
	Fixture schedule 60% complete
	Panels schedule 60% complete
	Riser diagram(s) 60% complete
Mechanical:	Equipment schedule complete
	Equipment located
	Ductwork laid-out
	Diffuser schedule complete
Plumbing:	Plumbing fixtures located on drawings
	Plumbing lines laid-out
	Fixture schedule(s) 60% complete
	Riser diagram(s) 60% complete
IT / Security:	TBD

- 5) Updated design delivery schedule.
- 6) Sealed Site Permit drawings.

CONSTRUCTION DOCUMENTATION PHASE

*The deliverable at the end of this phase represents completion of proposed Construction Documents (**NO SEALS**) subject to incorporation of any review comments resulting from review of deliverable.*

This deliverable shall consist of the following PDF documents:

- 1) Budget Analysis
 - a. If self-performed, Architect shall provide an updated opinion of probable cost
 - b. If utilizing a professional cost estimator or participating in a CMAR project, coordinate with Cost Estimator or General Contractor to provide a final detailed cost estimate based upon construction documents.
- 2) Design Analysis with all items complete. It shall include all backup material previously submitted and revised (as necessary), all design calculations, all explanatory material giving the design rationale for any design decisions which would not be obvious to an engineer reviewing the final drawings and specifications.
- 3) Final edited specifications (**NO SEALS**).
- 4) Complete Drawings including those addressing project construction phasing. (**NO SEALS**)
 - a. Sheet size shall not exceed ANSI-D (22x34) at 150 dpi max.
 - b. PDF documents shall be of emailable size (i.e. 10MB max.)
 - c. TDLR registration number included on Cover Sheet.
 - d. See specific requirements for each discipline (if required for project scope):

Civil:	Details complete
	Approved licensing agreements and permits
Structural:	Details complete
Architecture:	Door / Window schedules complete
	Interior finish schedule(s) complete
	Details complete
Electrical:	Fixture schedule complete
	Panels schedule complete
	Riser diagram(s) complete
	Details complete
Mechanical:	Equipment schedule complete
	Diffuser schedule complete
	Details complete
Plumbing:	Fixture schedule complete
	Riser diagram(s) complete
	Irrigation connections complete (if required)
	Details complete
IT / Security	TBD

- 5) Proposed construction schedule.

REGULATORY REVIEW & PERMITTING PHASE

The deliverable at the end of this phase includes BIM/AutoCAD files and permitted Construction Documents.

At the beginning of this phase provide the following PDF documents for record:

- 1) Sealed Construction Drawings.
 - a. Sheet size shall not exceed ANSI-D (22x34) at 150 dpi max.
 - b. PDF documents shall be of emailable size (i.e. 10MB max.)
- 2) Sealed Specifications.
- 3) Complete Drawings submitted to Registered Accessibility Specialist (RAS) for review.

This deliverable shall consist of updated **REVIT model / AutoCAD DWGs** and the following PDF documents:

- 1) Permitted Site Development Drawings.
 - a. Sheet size shall not exceed ANSI-D (22x34) at 150 dpi max.
 - b. PDF documents shall be of emailable size (i.e. 10MB max.)
- 2) Permitted Construction Drawings.
 - a. Sheet size shall not exceed ANSI-D (22x34) at 150 dpi max.
 - b. PDF documents shall be of emailable size (i.e. 10MB max.)
- 3) Permitted Specifications.

CONSTRUCTION CONTRACT BIDDING, AWARD, & EXECUTION PHASE

The deliverable at the end of this phase includes BIM/AutoCAD files and revised Construction Documents.

This deliverable shall consist of updated **REVIT model / AutoCAD DWGs** and the following PDF documents:

- 1) Construction Drawings Addenda.
 - a. Sheet size shall not exceed ANSI-D (22x34) at 150 dpi max.
 - b. PDF documents shall be of emailable size (i.e. 10MB max.)
- 2) Specifications Addenda.
- 3) Bid Tabulation

CONSTRUCTION ADMINISTRATION PHASE

Various deliverables are required throughout this phase

As required, provide the following PDF documents:

- 1) Copies of Change Orders and Supplementary Drawings
- 2) Copies of reviewed shop drawings and submittals
- 3) Reviews of Contractor's Pay Applications
- 4) Punch list of items needing correction before Substantial Completion Inspection
- 5) Written notice that contract has been performed in general conformance with plans and specifications and is ready for Final Inspection.

PROJECT CLOSE-OUT PHASE

The deliverable at the end of this phase includes record BIM/AutoCAD files and record Construction Documents.

This deliverable shall consist of updated **REVIT model / AutoCAD DWGs** and the following PDF documents:

- 1) "Clean" PDF of Building Plan(s) w/ Room #s coordinated with Fire Marshal review.
- 2) Record Construction Drawings.
 - a. Sheet size shall not exceed ANSI-D (22x34) at 150 dpi max.
 - b. PDF documents shall be of emailable size (i.e. 10MB max.)
- 3) Record Specifications.
- 4) Reviewed and compiled warranties, guarantees, and operation manuals

DELIVERABLE REVIEW STAMP

For standardization purposes during design Phases:

- 1) DO NOT track design review deliverables in the Revisions table of the Title Block.
- 2) Affix Interim Stamp with appropriate information in the location the Architect / Engineer seal will appear on each drawing sheet and Specifications title page.
- 3) See adjacent example for "Interim Stamp"



REJECTION OF DELIVERABLE

If the requirements of any deliverable phase are not met, the County will implement the following procedures:

- 1) The County will provide e-mail notice to Consultant that deliverable is rejected as soon as practical. Notice may include summary of deficiencies, red-line mark-ups, etc.
- 2) Consultant shall have seven (7) business days to resubmit with all required elements of the given review phase.
- 3) Within two (2) days of receipt of resubmission, the County will provide notice to Consultant that deliverable is accepted. At which point, the regular the County review process shall restart for the given review phase.
- 4) Rejected Consultant deliverables shall not impact overall deadline of the Project nor the review period allotted to the County officials.
- 5) Consultant shall provide an updated schedule showing interim submission date changes to make-up for any lost time.
- 6) Consultant shall not submit an invoice until the County accepts a Phase deliverable as functionally complete.