Coffee County Bridge Bundle | PD2501

PIN #134889.00 and 124047.00 | Coffee County

LINE AND GRADE PLANS

1PM1 |Set Up Project

Objective:

Develop schedule, quality management plan, and project communication plan as part of the preconstruction phase.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Prepare Preliminary Schedule ▪ Develop a draft project schedule (preconstruction schedule).
Prepare Design Quality Management Plan ▪ Develop and submit the design quality management plan. ▪ Define roles and responsibilities for critical quality tasks.
Prepare Draft Project Communication Plan ▪ Identify the communication needs and expectations of the project team. ▪ Develop a draft Project Communication Plan.
General Task Management ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1. 2.

1PM4 | Initial Risk Workshop

Objective:

Participate in/lead risk analysis early in the project for the Initial Risk Workshop and the subsequent pricing milestone workshops to identify, minimize, and/or eliminate risks or maximize opportunities that may negatively or positively impact schedule and/or budget. Updates to the register are detailed under the Price Facilitation and Construction Coordination Scope.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Set Up Meeting and Develop Agenda ▪ Gather all relevant materials (e.g., the Project Management Plan, project mapping, preliminary concept designs, etc.) and distribute to the meeting invitees. ▪ Organize this meeting and develop the agenda.
Hold Meeting and Document/Distribute Minutes ▪ Attend/Lead meeting. ▪ If assigned, document comments, decisions, and actions and distribute/upload meeting minutes and deliverables. ▪ Update documents as needed.
Update and Monitor Risk Register (also see Price Facilitation and Construction Coordination Scope) ▪ Evaluate the effects and status of the risks as the project progresses. ▪ Support updating of the Project Risk Register following the approach and schedule in the Risk Management Plan and in line with the Price Facilitation and Construction Coordination Scope. ▪ Confirm assignments for team members to document and resolve risks in the risk register.
General Task Management (other than tasks outlined above) ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1. 2.

1SY1 |Verify Design-Level Survey

Objective:

Verify the survey data provided by TDOT to cover the project limits, as requested by the Roadway Design Lead or other technical leads to aid in the development of the Line and Grade Package (1RD1) and Functional Design Plans (2RD1).

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Verify Control from the TDOT Ground Survey ▪ Verify semi-permanent monuments and "to-reach" and referencing calculations, static GPS occupations, distance checks, and leveling. ▪ Post-process static data to compute coordinates (as needed). ▪ Produce additional Project Control Document containing project information, location map, and data sheets (if needed).
Conduct Additional Survey Public Involvement and Ground Survey (if needed) ▪ Conduct any Additional Survey Public Involvement and Ground Survey (to supplement or replace what TDOT provided) ▪ Finalize the survey files based on comments received. ▪ Develop and submit Property Packet (tax cards, deeds, property owner contact letters), roadway plans, One-Call tickets.
Incorporate SUE Request into Survey ▪ Contact Tennessee One Call to obtain utility markings to be located and incorporated into the ground survey. ▪ Incorporate into the existing topography deliverable for the stage.
General Task Management ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1. 2.

1RD1 |Initiate Roadway Design

Objective:

Develop the roadway design to represent sound roadway design principles and practices to inform the first pricing milestone and related environmental document clearance.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Establish Project-Specific Design Criteria ▪ Prepare and submit draft design criteria. ▪ Revise and resubmit design criteria in response to comments. ▪ Submit final design criteria.
Determine Work Zone Significance ▪ Prepare and submit draft Work Zone Significance Determination Form. ▪ Revise and resubmit form in response to comments. ▪ Submit final form
Establish Environmental Technical Study Area (ETSA) ▪ Establish ETSA early under 1RD1 to set the limits for TDOT's technical studies (and resource identification) efforts. ▪ Coordinate review of the ETSA with the assigned technical and design leads. ▪ Complete updates, as needed, to finalize the ETSA.
Develop Line, Grade, and Cross Sections (Line and Grade Package) ▪ Develop/design the Line and Grade Package to include: o Set the horizontal alignment o Set the vertical alignment o Establish cross sections o Set driveway profiles for key driveways. o Create the initial, proposed TIN file and display present and proposed contours. o Establish preliminary/proposed right-of-way limits and easement locations. o Incorporate environmental resource shapefiles or location details (e.g., for ecological features such as wetlands, streams, etc. or for historic or archaeological resources). o Incorporate all other elements listed in the Roadway Line and Grade Design Checklist. ▪ Document design efforts that avoid or minimize impacts to environmental resources in the ETSA. ▪ Finalize the Line and Grade Package, containing: o Title sheet .pdf o Survey and proposed alignment, contours, and cross section .dgn files o TIN file o GPK file o KMZ file o All other necessary MicroStation, GEOPAK, and Microsoft files o A .pdf of the proposed alignment as a roll plot, profile, and cross sections o All other elements listed in the Roadway Line and Grade Design Checklist

▪ Submit the Package that includes proposed alignment as a roll plot, profile, and cross sections. ▪ Develop and submit quantities for the roadway items to inform the Line and Grade estimate/first pricing milestone.
Compile the Line and Grade Package and Lead Field Review ▪ Compile and notify the team that the package is available. ▪ Lead the review meeting and technical discussions (may be combined with related Line and Grade constructability review). ▪ Compile and distribute meeting minutes.
General Task Management ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1. 2.

2ST2 | Develop Preliminary Bridge Plans

Objective:

Evaluate clearances of the assumed structures for the proposed geometry and develop preliminary bridge layout(s) for inclusion with the Line and Grade Plans.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Review Proposed Grade and Alignment for Non-Hydraulic Crossings ▪ Review the proposed alignment, profile, and typical section in the initial line and grade .dgn. ▪ Confirm and/or determine appropriate structure type and span arrangement for each crossing. ▪ Calculate vertical and horizontal clearances for each assumed structure, evaluating whether the proposed line and grade are acceptable. ▪ Develop draft layouts for each crossing if the line and grade are acceptable. ▪ Draft, respond to comments, and finalize Grade Approval Letter.
Develop Preliminary Bridge Layouts ▪ Develop the Draft Preliminary Layout to ensure all geometry matches the initial roadway plans and adjust the proposed structure as necessary. ▪ Develop a typical cross section using assumed beam type from the grade approval for non-hydraulic crossings. ▪ Coordinate the design of deck drains with the Hydraulic/Drainage Lead for all non-hydraulic structures. ▪ Update notes and project information. ▪ Submit the preliminary bridge layouts for TDOT review (as part of the Line and Grade Package). ▪ Develop and submit quantities for the structural items for the Line and Grade estimate/first pricing milestone. ▪ Attend the field review meeting.
Coordinate Geotechnical Analysis for Bridges ▪ Establish the boring locations for all bridge foundations and wall locations (if needed). ▪ Prepare the Foundation Data Sheets. ▪ Finalize and submit the Structures Foundation Request to the Lead Geotechnical Engineer/ Geotechnical Engineering Section.
General Task Management ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.

Insert other tasks as needed:

1.

2.

1GT1 | Develop Geotechnical Work Plan

Objective:

Develop a geotechnical work plan based on field reconnaissance, study of geologic maps, and coordination with the Roadway and Structural Design Lead.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Gather Relevant Geotechnical Information ▪ Collect/evaluate relevant project information. ▪ Coordinate with Operations and Maintenance staff to discuss maintenance history and existing conditions. ▪ Determine where certain geotechnical subsurface locations may conflict with utilities.
Develop Geotechnical Work Plan ▪ Draft the Geotechnical Work Plan (including responding to comments on the draft). ▪ Finalize the Geotechnical Work Plan and send to survey, if needed.
General Task Management ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1. 2.

1TO1 | Complete Operational Analysis

Objective:

Complete a traffic analysis and coordinate (with the design team) work zone significance and potential incident management applications related to the mitigation strategies considered in the Transportation Management Plan (TMP).

Tasks/Deliverables:

Tasks/Deliverables with Assumptions

Complete Traffic Analysis
▪ Determine the level of project complexity.
▪ Develop the limits of the analysis and intersections included in the analysis to match the traffic forecast (collect data not already available from TDOT).
▪ Develop the traffic analysis for:
  o Base year no-build (based on existing conditions)
  o Future year no-build (based on existing conditions, without the proposed project but with any other fiscally constrained project(s) in place)
  o Future year build for the alignment in question
▪ Recommend operational strategies or intersection/interchange improvements for the Line and Grade Package, supporting scope, schedule, and budget evaluation of said improvements.
▪ Draft and finalize the Traffic Operations and Safety Review Memorandum.

Coordinate Work Zone Significance ▪ Review (completed by the Roadway Design Lead) the Work Zone Significance Determination Form.
General Task Management ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1. 2.

1UT1 |Begin Third Party (Utilities) Coordination

Objective:

Contact the utility owners in a project's vicinity to confirm all are aware of one another's plans, which reduces late-stage changes that can negatively impact the schedule and add unexpected costs. It is anticipated that this will be a Chapter 86 project.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Make Initial Utility Contact ▪ Send notice of a project to all utilities in the project area (two notices may be needed). ▪ Compile a list of the utilities that responded and send to TDOT and the Roadway Design Lead.
Conduct Utility Coordination Kickoff Meeting ▪ Prepare meeting agenda. ▪ Lead the meeting in coordination with TDOT. ▪ Prepare and distribute meeting minutes/actions.
General Task Management ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1. 2.

FUNCTIONAL DESIGN PLANS

2PM1 | Manage Project

Objective:

Lead the DBT team to ensure the project remains on schedule, within allocated resources (budget and staff), and within the project scope of work. Provide project oversight through the entire design phase and proactively facilitate regular coordination between all project team members to improve quality, resolve issues, and mitigate risks.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Finalize the Project Management Plan ▪ Finalize Project Scope and preconstruction phase schedule ▪ Compile Project Quality Management Plan, including the Design Quality Management Plan and Records Management Plan ▪ Compile Project Communication Plan
General Task Management ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1. 2.

2GT1 | Complete the Soils and Geology Report

Objective:

Complete a Soils and Geology Report, including site exploration, laboratory testing, engineering analysis, and recommendations. Additionally, develop Geotechnical Sheets (G-sheets) and any supporting geotechnical addenda.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Conduct Site Exploration for Soils and Geology Report (may be combined with 2GT2 exploration) ▪ Make the TN One Call and document feedback. ▪ Coordinate with TDOT Maintenance for required traffic control and ensure equipment is ready to mobilize to project site. ▪ Mobilize crew. ▪ Conduct the workplan's drilling, sampling, and geophysical testing for the site. ▪ Add additional steps specific to the drilling and documentation process here.
Select the Appropriate Laboratory Testing Program ▪ Determine the appropriate test methods.
Develop the Soils and Geology Report ▪ Complete lab testing. ▪ Create boring logs and develop necessary report details. ▪ Draft the Soils and Geology Report (including responding to comments on the draft). ▪ Finalize the Report.
Develop Associated Geotechnical Sheet (G-Sheets) ▪ Develop the Geotechnical Sheets (G-Sheets). ▪ Send preliminary slope recommendations to Roadway Design Lead. ▪ Coordinate inclusion of the G-Sheets in the appropriate plans. ▪ Attend the field review meeting.
General Task Management ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1. 2.

2GT2 | Complete Foundation Reports

Objective:

Prepare foundations reports for required bridge foundations, project walls (if needed), and foundations for high-mast lighting, standard lighting, signing, and signal structures. Advanced the geotechnical design and draft the geotechnical special provisions to include with the Functional Design Plans and to inform the second pricing milestone.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Conduct Site Exploration (for Foundation Reports; may be combined with 2GT1 exploration) ▪ Make the TN One Call and document feedback. ▪ Coordinate with TDOT Maintenance for required traffic control and ensure equipment is ready to mobilize to project site. ▪ Mobilize crew. ▪ Conduct the workplan's drilling, sampling, and geophysical testing for the site for any proposed wall(s) (as applicable). ▪ Conduct the workplan's drilling, sampling, and geophysical testing for the site for proposed signs, signals, and lighting. ▪ Conduct the workplan's drilling, sampling, and geophysical testing for the site for proposed bridges. ▪ Attend the X field review meetings. ▪ Add additional steps specific to the drilling and documentation process here.
Complete and Submit Foundation Report for Wall(s) (if needed) ▪ Complete necessary lab work. ▪ Create boring logs and develop necessary report details. ▪ Draft the Report (including responding to comments on the draft). ▪ Finalize the Report. ▪ Develop associated foundation R-sheets in .dgn format.
Complete and Submit Foundation Report for Signs, Lighting, Signals, and High-Mast Lighting ▪ Complete necessary lab work. ▪ Create boring logs and develop necessary report details. ▪ Draft the Report (including responding to comments on the draft). ▪ Finalize the Report. ▪ Develop associated foundation detail sheets in .dgn format.
Complete and Submit Foundation Report for Bridges ▪ Complete necessary lab work. ▪ Create boring logs and develop necessary report details. ▪ Draft the Report (including responding to comments on the draft). ▪ Finalize the Report. ▪ Revise associated foundation detail sheets in .dgn format. ▪ Draft Geotechnical Special Provisions.

General Task Management ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1. 2.

2RD1 | Develop Functional Design Plans

Objective:

Complete the project's Functional Design Plans and associated roadway tasks to set the project footprint; define the data to be used to advance utility coordination, railroad reviews, and ROW impacts; and support advancement of other disciplines' plans and related design work for similar ends.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Develop a Utility Impact/Conflict Matrix (complete in concert with SUE task) ▪ Finalize a project-specific Utility Impact/Conflict Matrix ▪ Revise/update as the project's design progresses and utility details become known.
Develop ROW Acquisition Exhibits ▪ Prepare exhibits (revise as needed based on review comments). ▪ Revise exhibits and/or plans and complete the Revision Request Form (as needed) due to optimization or negotiations. ▪ Revise/Update as the design progresses and utility details become known encroachments needed for construction (e.g., permanent easements, slope easements, temporary construction easements).
Identify Initial Subsurface Utility Engineering (SUE) Needs (if needed) ▪ Perform a utility conflict analysis to identify potential subsurface conflicts with proposed design elements. ▪ Coordinate anticipated subsurface components to further refine preliminary utility conflicts. ▪ Establish a test hole list.
Request Pavement Design ▪ Prepare and submit a Pavement Design Request Form to include: o Title sheet o Traffic information, including average daily traffic (ADT) and average daily loading (ADL). o Soils and geology report, as available at the time of the request (see 2GT1 for related information). o Typical sections o Present and proposed layout sheets o Cross sections o Traffic phasing (including locations of temporary run-arounds or use of shoulders)
Document Design Exceptions and Waivers ▪ Complete a Design Exception or Design Waiver Request Form ▪ Prepare and submit the letter, checklist, and location of the design plans (i.e., plan sheets, location map, and other related information). ▪ Revise the form and related information to address comments.

- Secure approval of the Design Exception(s) or Design Waiver(s).

Incorporate SUE Data and Lead Internal Design Deconfliction Meetings (if needed)

- Develop agendas and prepare for meetings (if not completed during regular project or task force meetings).
- Update plans/files and the Utility Impact/Conflict Matrix.
- Lead the meetings.
- Distribute and upload meeting minutes and action items to the project folder.
- Schedule follow-up meetings, as needed.

Develop Utility Coordination Plans

- Develop and revise (to address comments) a .pdf and .dgn set with a "Utility Coordination Plan Phase" stamp to include:
  - Title sheet
  - Plan and profile sheets
  - Typical sections and cross section sheets
  - SUE quality level C representation of known (surveyed) utilities (include additional quality level SUE if completed above)
  - Traffic control sheets (if available)
  - Drainage sheets, including storm drain system and culvert crossings
  - Structure sheets, including retaining wall sheets that depict location and type of retaining walls and bridge foundation and utility impacts with foundations.
  - Signal and lighting poles, cabinets, and electrical circuit locations
  - Stream and wetland mitigation design and clearly marked resource areas not to be used for utility relocations design (as applicable).
  - Proposed cut and fill lines
  - Present and proposed right-of-way linework
  - Any underground improvements that have potential to impact the utility relocation design.
- Submit/upload the Utility Coordination Plans for the Utility Coordinator's use.

Develop Conceptual Traffic Control Strategies

- Develop conceptual strategies or Temporary Traffic Control (TTC) concepts in accordance with the Work Zone Safety and Mobility Manual.
- Advance the line and grade .dgn in the Line and Grade Package and the layout sketch developed tied to design advancement under this 2RD1.

Develop the Functional Design Plans

- Revise the title sheet and update the plan, profile sheets, and cross section sheets from the Line and Grade Package.
- Incorporate geotechnical recommendations for slopes into the plan, profile, and cross section sheets.
- Refine the typical sections to include the pavement design.
- Incorporate conceptual traffic control strategies/TTC concepts.
- Draft the preliminary pavement and intersection marking design.
- Include preliminary placement of roadway safety features.
- Develop/finalize the drainage design.
- Develop erosion prevention and sediment control (EPSC) design.
- Include existing easements and any right-of-way, permanent easements, slope easements, and temporary construction easements.
- Incorporate environmental recommendations for avoidance and minimization of impacts, labeling the environmental features on the plans.
- Develop and submit quantities for the roadway items to inform the Functional Design estimate/second pricing milestone.
- Evaluate the roadway design to determine if any incompatibilities exist with other discipline's designs.
- Incorporate all other elements listed in the Roadway Functional Design Checklist.

Coordinate Geotechnical Analysis for Walls (if needed)

- Coordinate/identify boring locations.
- Develop and send request and layouts to the Lead Geotechnical Engineer/ Geotechnical Engineering Section (revise as needed).

Compile the Functional Design Plans and Participate in the Field Review

- Compile (from all disciplines) and notify the team that project plans/sheets and estimate are available.
- Attend the meeting and lead the technical discussions.
- Compile and distribute a comprehensive list of review comments and meeting minutes.

Revise and Submit Updated Functional Design Plans (to inform the ROW acquisition steps)

- Review and resolve all field review comments on the Functional Design Plans.
- Submit the revised plans in accordance with the Roadway Design Guidelines.

General Task Management

- Internal coordination and meetings
- Project documentation
- Administration

Complete QC/QA Procedures

- Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.

Insert other tasks as needed:

1.

2SY1 |Complete SUE and Requested Staking

Objective:

Complete requested subsurface utility engineering (SUE) and staking for proposed sounding holes and right-of-way to support the respective technical discipline's work.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Incorporate SUE Level A and B Request into Survey ▪ Contact Tennessee One Call to obtain utility markings to be located and incorporated into the ground survey. ▪ Incorporate into the deliverable for the stage.
Stake Sounding Holes ▪ Provide staking of locations identified by the Structural Design Lead or Lead Geotechnical Engineer/Geologist on the proposed Layout Sheet. ▪ Set the field markings to complete the staking. ▪ Update the Layout Sheet to include assigned ground elevations.
Stake ROW ▪ Stake the proposed right-of-way to field-locate parcel impacts. ▪ Complete the field staking and mark the stakes with a description, station, and offset designations.
General Task Management ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1. 2.

2UT1 |Initiate Utility Pre-Acquisition Activities

Objective:

Provide a utility estimate, coordinate subsurface utility exploration (SUE) needs (if needed), and advance third-party coordination efforts from previous stages.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Coordinate/Request Needed SUE (if needed) ▪ Support the utility conflict analysis to identify potential subsurface conflicts with proposed design elements. ▪ Coordinate anticipated subsurface components to further refine preliminary utility conflicts. ▪ Help establish the test hole list with the Roadway Design Lead.
Prepare Utility Estimate ▪ Compare projected relocations with past relocations costs. ▪ Complete the estimate (determining preliminary utility costs) and coordinate any uploading of the estimate into TDOT's system.
Develop a Utility Impact/Conflict Matrix ▪ Support development of the project-specific Utility Impact/Conflict Matrix. ▪ Revise/update as the project's design progresses and utility details become known.
Review SUE Data and Attend Internal Design Deconfliction Meetings ▪ Support the Roadway Design Lead in developing agenda and preparing for meeting.
General Task Management ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1. 2.

3ST1 |Complete Structural Design

Objective:

Advance the structural design (walls and bridge plans) for inclusion with the Functional Design Plans.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Complete Wall Sheets (if needed) ▪ Design the wall, advancing wall sheets/plans, quantities, special provisions, and calculations. ▪ Detail wall drawings, which includes Structures Division drawing numbers. ▪ Compile all wall drawings into a final set with 'R' series sheet numbers. ▪ Provide the plans, quantities, special provisions, and calculations to the Roadway Design Lead for inclusion with the Functional Design Plans (and for the second pricing milestone). ▪ Attend the field review meeting
Complete Design and Detail Bridge Plans and Quantities ▪ Design the bridge, advancing bridge sheets/plans, quantities, and calculations ▪ Compile design calculation notebook in .pdf format. ▪ Prepare the structures special provisions and detailed bridge plans. ▪ Draft the calculation notebook. ▪ Provide the plans, quantities, special provisions, and calculations to the Roadway Design Lead for inclusion with the Functional Design Plans (and for the second pricing milestone). ▪ Attend the field review meeting.
General Task Management ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1. 2.

2TO1 | Prepare Signals and Lighting Sheets

Objective:

Advance design for all signal and lighting work for the Functional Design Plans, ensuring early and ongoing coordination of the project's signal and lighting scope and equipment locations with the Utility Coordinator, Structural Design Lead, and Roadway Design Lead to mitigate potential impacts.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions

Prepare Signal Sheets
▪ Reference the line and grade .dgn and the layout sketch to prepare a signal layout with:
  o Pole locations and strain poles (station/offset/coordinates provided)
  o Power connection locations
  o Controller cabinet
  o Signal heads
  o Pull boxes and conduit
▪ Develop the signal sheets and related quantities.
▪ Coordinate to mitigate issues related to power and overhead/underground conflicts.
▪ Submit the sheets/plans and quantities to the Roadway Design Lead for inclusion with the Functional Design Plans (and for the second pricing milestone).
▪ Attend the field review meeting.

Prepare Lighting Sheets ▪ Reference the line and grade .dgn and the layout sketch to prepare a photometric layout replicated in MicroStation. ▪ Prepare a lighting layout with pole locations and identifies power connection locations. ▪ Determine underpass lighting. ▪ Develop the preliminary lighting sheets and quantities. ▪ Coordinate to mitigate issues related to power and overhead/underground conflicts. ▪ Verify lighting maintenance agreement. ▪ Submit the sheets/plans and quantities to the Roadway Design Lead for inclusion with the Functional Design Plans (and for the second pricing milestone). ▪ Attend the field review meeting.
Support Development of the Conceptual Traffic Control Strategies ▪ Support development of the TTC concept plans.
General Task Management ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.

Insert other tasks as needed:

1.

2.

2RW1 | Initiate ROW Pre-Acquisition Activities

Objective:

Complete a right-of-way cost estimate, initiate title searches, and support the initiation of any Preliminary Group Inspection (PGI) field work (as property is identified) based on the current plans and on recommendations from the ROW Strategy Meetings (excluding any CFW Railroad ROW activities).

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Prepare Right-of-Way Estimate ▪ Review the Line and Grade Package to determine the type of properties affected and research the market for data of comparable sales. ▪ Apply market-derived values to each tract's land acquisitions and inspect each tract for additional values. ▪ Submit the appraisal cost estimate to TDOT to inform Form 44. ▪ Gather the ROW, Utility, and Railroad information and support creation/generation of the Form 44.
Perform Title Searches ▪ Search the public records to identify conveyance documents, indicating current ownership of the properties needed for the project. ▪ Obtain copies of all pertinent documents identified in the public records search, attaching this information to the completed ROW Form 49 (Title Report). ▪ Coordinate with TDOT on completing Form 49. ▪ Complete a Right-of-Way Plan/Title check in accordance with Chapter VI of the ROW Policy and Procedures Manual.
General Task Management ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1. Complete a Conceptual Stage Relocation Plan (CSRP), as requested by the TDOT Environmental Lead. 2.

2PM3 | Conduct ROW Strategy Meeting(s)

Objective:

Work with the Design Lead (e.g., the Roadway Design Lead, Structural Design Lead) to organize, and facilitate the Right-of-Way (ROW) Strategy Meeting(s).

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Set Up Meeting and Develop Agenda ▪ Gather all relevant materials (e.g., current design plans for all disciplines with existing right-of-way, property ownership right-of-way estimate, Comment Resolution Form, etc.) and distribute to the meeting invitees. ▪ Organize the meetings and develop the agendas.
Hold Meeting and Document/Distribute Minutes ▪ Attend/Lead meetings. ▪ If assigned, document comments, decisions, and actions and distribute/upload meeting minutes and deliverables. ▪ Update documents as needed.
General Task Management (other than tasks outlined above) ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1.

2PM5 | Hold Functional Design Plans Field Review Meeting

Objective:

Organize and facilitate the Functional Design Plans Field Review Meeting (which may be combined with related constructability review).

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Set Up Meeting and Develop Agenda ▪ Gather all relevant materials (e.g., Functional Design Plans, estimates, Comment Resolution Form, etc.) and distribute to the meeting invitees. ▪ Organize this meeting and develop the agenda. ▪ Coordinate with the Design Lead to confirm all disciplines have completed quality checks and that the Functional Plans are ready for review.
Review and Complete Comment Form ▪ Distribute comment resolution form. ▪ Complete PM-level review of the submittal (as appropriate) and add comments to the form.
Compile Comments, Hold Meeting and Document Minutes ▪ Compile all comments received. ▪ Attend/Lead meeting. ▪ If assigned, document comments, decisions, and actions and distribute/upload meeting minutes and deliverables. ▪ Update documents as needed.
General Task Management (other than tasks outlined above) ▪ Internal coordination and meetings ▪ Project documentation ▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1. 2.

3RW1 | Complete Appraisal and Initiate Acquisition

Objective:

Coordinate finalization of the PGI Report (and related field work). Prepare/finalize all title reports and oversee consultant appraisals, appraisal reviews, and preparation of written offers of just compensation for the acquisition of needed property rights to complete the project. Update the project team (as applicable) on the status of the following tasks through regular team meetings or reoccurring ROW Strategy Meetings (see 2PM3 for related information). This activity may be completed under the final design/construction contract and excludes any CFW Railroad ROW activities.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Produce Preliminary Group Inspection (PGI) Report (in coordination with TDOT staff) ▪ Initiate field work using the Line and Grade Package or Functional Design Plans. ▪ Identify appraisal problems ▪ Determine the type of report to be requested. ▪ Coordinate with, at a minimum, the ROW engineering and acquisition/relocation personnel to review the plans and perform a field inspection of the project. ▪ Identify relocations and determine the inventory of real vs. personal property. ▪ Ensure the PGI Reports are completed (support response to comments).
Employ Fee Appraiser (as approved by TDOT) ▪ Submit formal request for TDOT selection of consultant fee appraiser, appraisal reviewer, and acquisition/relocation agent(s) (using the Department's pre-qualified list).
Request ROW Staking ▪ Request that the Survey Lead stake the proposed right-of-way to field. ▪ Verify staking in the field.
Appraise Property ▪ Coordinate with Survey Lead to inform him/her of appraisal due dates to ensure staking is done at the appropriate time (typically completed by the Regional ROW Manager). ▪ Inspect property, complete appraisal report, and submit to TDOT for review.
Review Appraisals ▪ Perform a desk audit of the appraisal and a field inspection of the parcel. ▪ Work with the Appraiser to obtain additional information, correct errors, and provide further explanation, when necessary. ▪ Determine if the remainder property qualifies as an uneconomic remainder and prepare ROW Form 2 accordingly. ▪ Produce an appraisal review document and an approved offer (on ROW Form 2).
General Task Management ▪ Internal coordination and meetings ▪ Project documentation

▪ Administration
Complete QC/QA Procedures ▪ Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.
Insert other tasks as needed: 1. Complete an Acquisition Stage Relocation Plan (ASRP) (if needed) 2.

3RW2 | Prepare & Submit ROW Certification

Objective:

Perform/Finish Acquiring Property (including relocation if needed) and support completion of the ROW Certification affirming that the land rights necessary for the construction of a project have been obtained in adherence to the State and Federal rules and regulations governing acquisition and relocation. This activity may be completed under the final design/construction contract.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Perform/Finish Acquiring Property ▪ Support/lead any public meetings and coordination meetings with public officials or other stakeholders as directed by TDOT. ▪ Continue preparing offer (revise as needed). ▪ Continue negotiating with the landowner. ▪ Continue to transmit information for condemnation to TDOT (if required). While TDOT will lead condemnation proceedings, the DBT to provide necessary ROW information, design details, and support TDOT ROW and State legal staff on proceedings. ▪ Support recording of fully executed deeds. ▪ Perform the closing and obtain the releases (completed by someone other than the negotiator). ▪ Draft the deed and request TDOT order checks for payment to the property owner and for recording the deed.
Perform/Finish ROW Relocation (if needed) ▪ Conduct preliminary interviews with those being displaced. ▪ Confirm the Acquisition Stage Relocation Plan (ASRP) has been completed. ▪ Obtain estimates and conduct market studies to determine specific relocation benefits. ▪ Make a relocation offer and establish eligibility. ▪ Coordinate obtaining possession of the underlying tract and timing needed on the Order of Possession.

Review of ROW Acquisition Process, Verify/Update Schedule, and Issue ROW Certification

- Upload copies of all required documents to IRIS for TDOT to review and submit certification.
- Coordinate submittal of a Form 10 for each letting meeting to update as to status of tracts.
- Confirm adequacy of the digital files in IRIS to verify that a fully executed and recorded deed, an order of possession, or a right of entry are included for each tract.
- Support TDOT certification that the ROW is available for the project.
- Complete relocation assistance services (if needed), property management services, and parcel closings.
- Prepare, obtain execution of, and record documents conveying title to such properties to the Department and deliver all executed and recorded general warranty deeds to the Department.

General Task Management

- Internal coordination and meetings
- Project documentation
- Administration

Complete QC/QA Procedures

- Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.

Insert other tasks as needed:

1.

2.

3UT1 |Perform Utility Coordination

Objective:

Develop and execute a plan to address how each utility on a project is addressed (avoided, relocated, protected-in-place, etc.) so construction may move forward without any delays/issues.

Tasks/Deliverables:

Tasks/Deliverables with Assumptions
Send Utility Coordination Plans ▪ Review the plans and finalize prior to sending to the utility owner. ▪ Send the identified utility owner a complete set of plans. ▪ Upload the submitted plans to TDOT.
Coordinate Consultant Requests (with TDOT staff) ▪ Review the applicable consultant documents. ▪ Coordinate issuance of a consultant authorization letter to the utility owner.
Conduct Utility Plan Review Kickoff Meeting ▪ Prepare the agenda and other meeting materials. ▪ Lead the meeting in coordination with TDOT. ▪ Prepare and distribute meeting minutes and actions.
Lead 60-Day Deconfliction Meeting ▪ Set and invite attendees to the utility deconfliction meeting. ▪ Prepare agenda and other meeting materials. ▪ Lead the meeting in coordination with TDOT.
Complete 120-day Utility Review and Process Relocation Contract Requests ▪ Receive and review (in coordination with TDOT) A-date package from each impacted utility owner. ▪ Generate and coordinate sending the relocation contract to the utility owner. ▪ Coordinate the contract by the utility owner. ▪ Draft and send to TDOT the utility owner letter with the contract.
Submit Rainbows to Environmental ▪ Review Utility Relocation Plans, aka Rainbow Plans. ▪ Forward plans to the NEPA Lead and Environmental Permit Lead, coordinating potential environmental reevaluations, additional environmental technical studies, or changes to the permit sketches (if needed).
Coordinate Putting Utilities to Work (with TDOT staff) ▪ Gather all approved documents to include as an attachment to the “put to work letter”. ▪ Draft and send to TDOT for the utility owner to be put to work, authorizing the utility owner to commence their relocation.

Submit Construction Drawings to Design (may be deferred to final design)

- Generate the U1 drawings from Utility Relocation Plans (aka Rainbow Plans or B-date packages).
- Gather all utility relocation plans for each utility, including the owner's work in the state contract.
- Compile all drawings together into a .pdf portfolio.
- Send the compiled drawings to the Roadway Design Lead for incorporation into the plans (this may be completed during final design).
- Attend the needed review meetings).

General Task Management

- Internal coordination and meetings
- Project documentation
- Administration

Complete QC/QA Procedures

- Perform appropriate quality reviews and complete quality checklists in accordance with the TDOT Quality Manual.

Insert other tasks as needed:

1.

2.