May 16, 2025

# Project Development Process Manual

Webinar

Jennifer Book (DES – Project Delivery Section)

# Learning Objectives

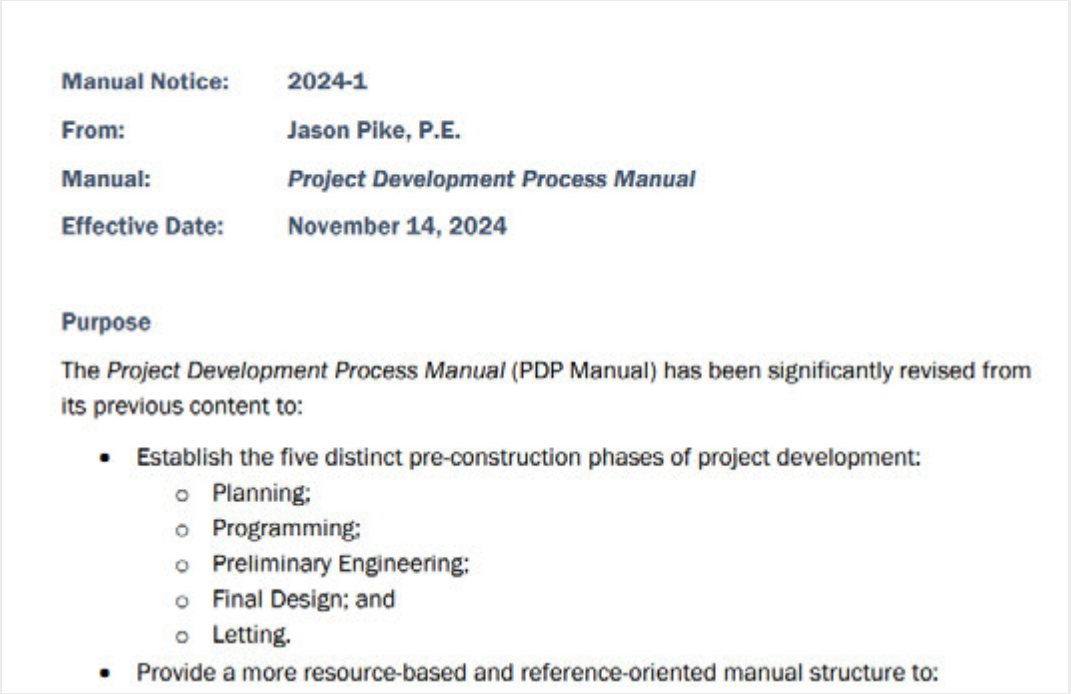
- Outline manual restructure and changes
- Present key updates made to the Project Development Process Manual
- Review appendices content

# Agenda

- Overall Manual Organization & Table of Contents
- General Guidance (Chapter 1)
- TxDOT's Project Development Process (Chapters 2 – 8)
  - Planning (Chapter 2)
  - Programming (Chapter 3)
  - Preliminary Engineering (Chapter 4)
  - Environmental and Public Involvement (Chapter 5)
  - Right of Way and Utilities (Chapter 6)
  - Final Design (Chapter 7)
  - Letting (Chapter 8)
- Appendices (A, B, C and D)
- Questions?

# Publication and Implementation

- Effective: November 14, 2024
- Provides information, guidance, and references to develop a transportation construction project from the planning phase to project letting through the design-bid-build process.
- Use for the development of transportation construction projects utilizing the design-bid-build delivery process.



**Manual Notice:** 2024-1
**From:** Jason Pike, P.E.
**Manual:** *Project Development Process Manual*
**Effective Date:** November 14, 2024

**Purpose**

The *Project Development Process Manual* (PDP Manual) has been significantly revised from its previous content to:

- Establish the five distinct pre-construction phases of project development:
  - Planning;
  - Programming;
  - Preliminary Engineering;
  - Final Design; and
  - Letting.
- Provide a more resource-based and reference-oriented manual structure to:

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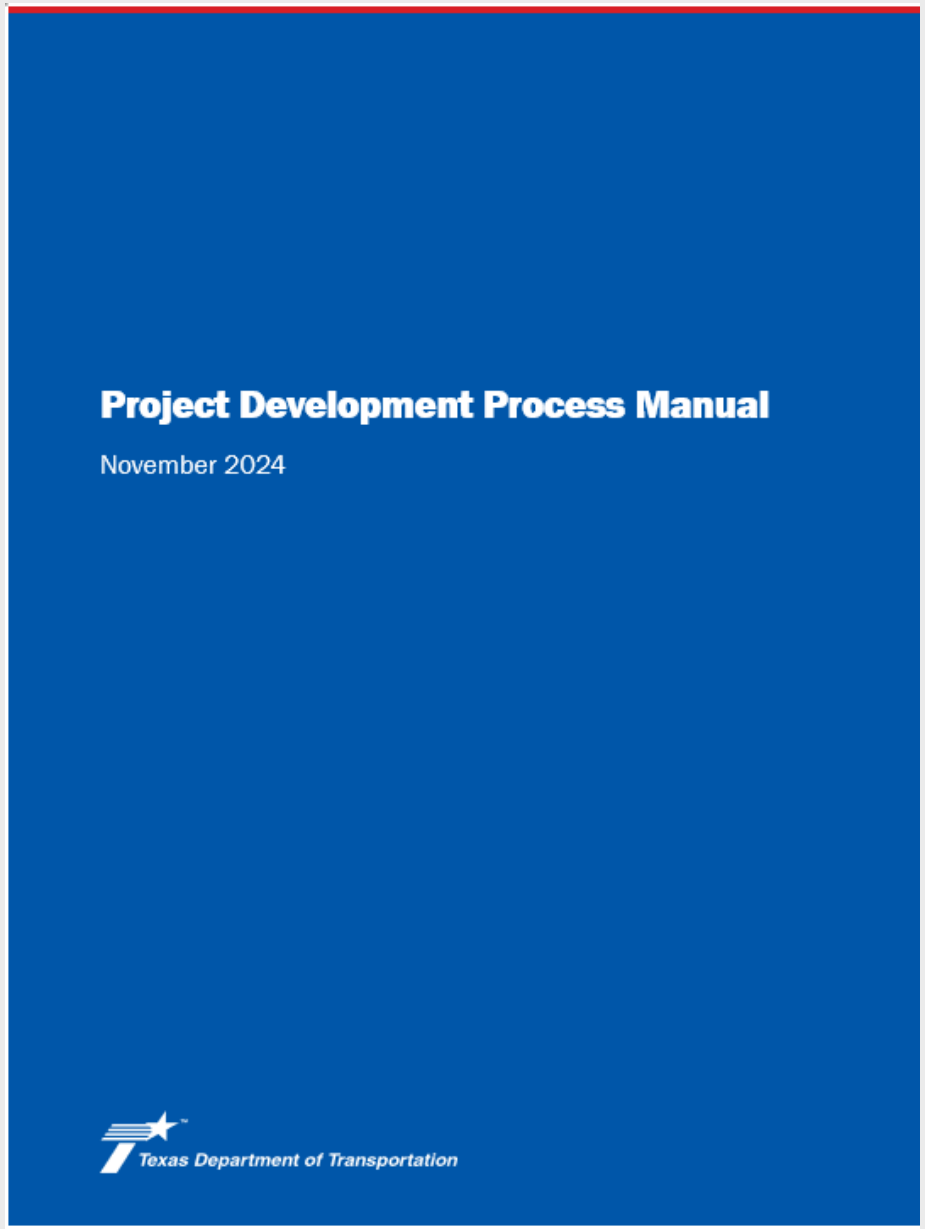
# Manual Organization and Table of Contents

# Manual Organization

- Content
- General process overview
- Project team/SME responsibility



# Table of Contents

- Interactive pdf
  - "eBinder" format
  - Table of Contents
  - Bookmarks
- Eight chapters of content
- Four appendices

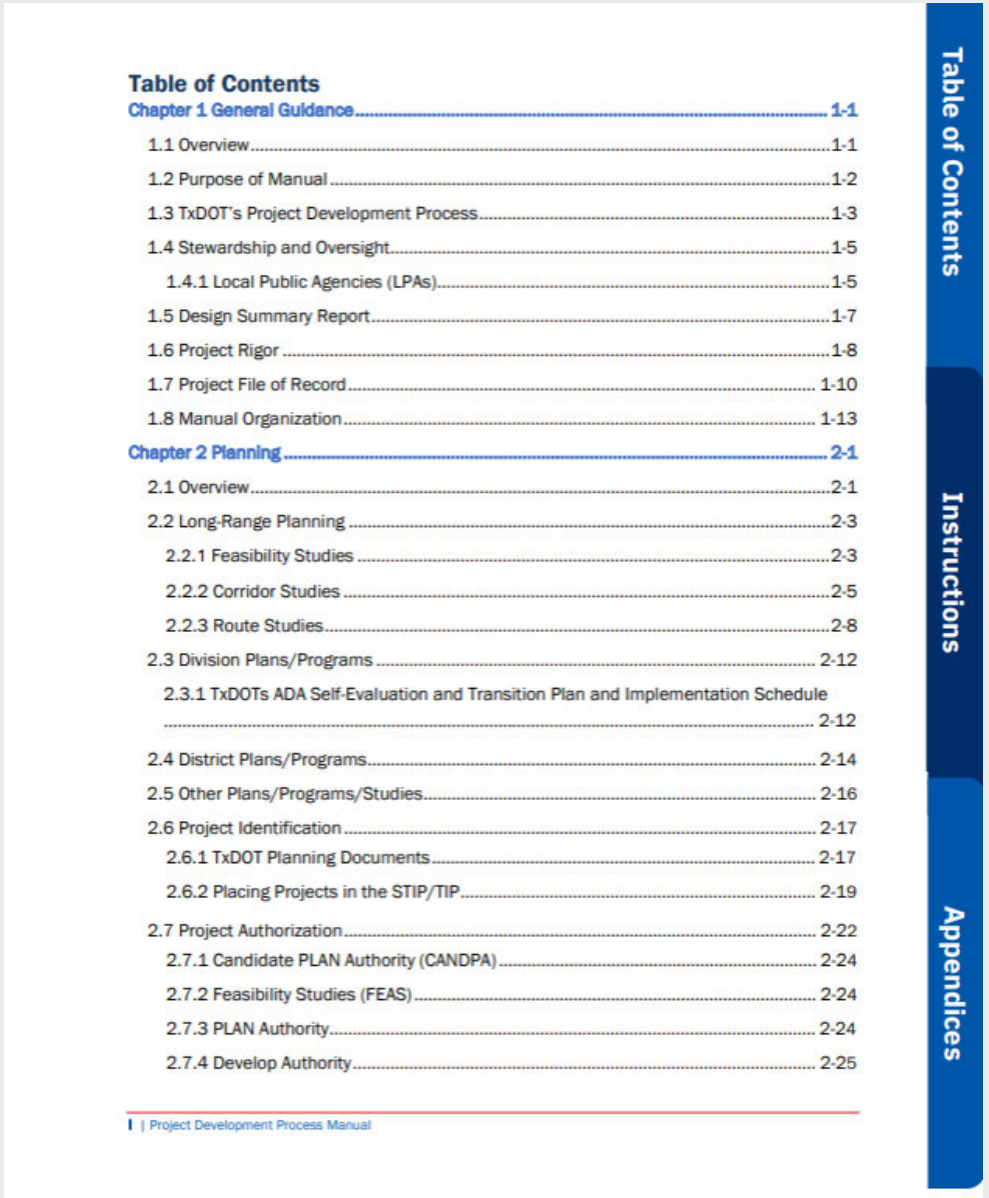
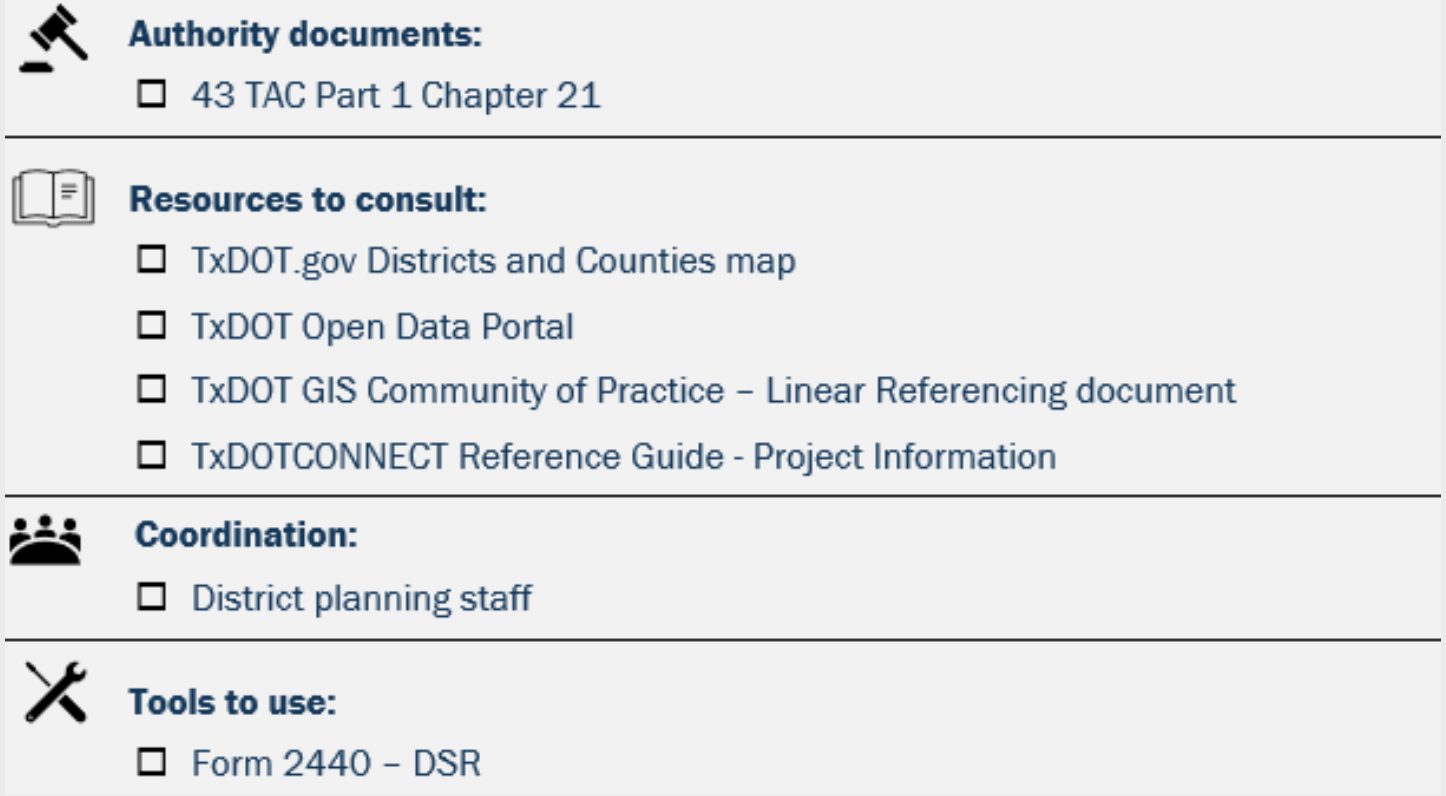


Table of Contents

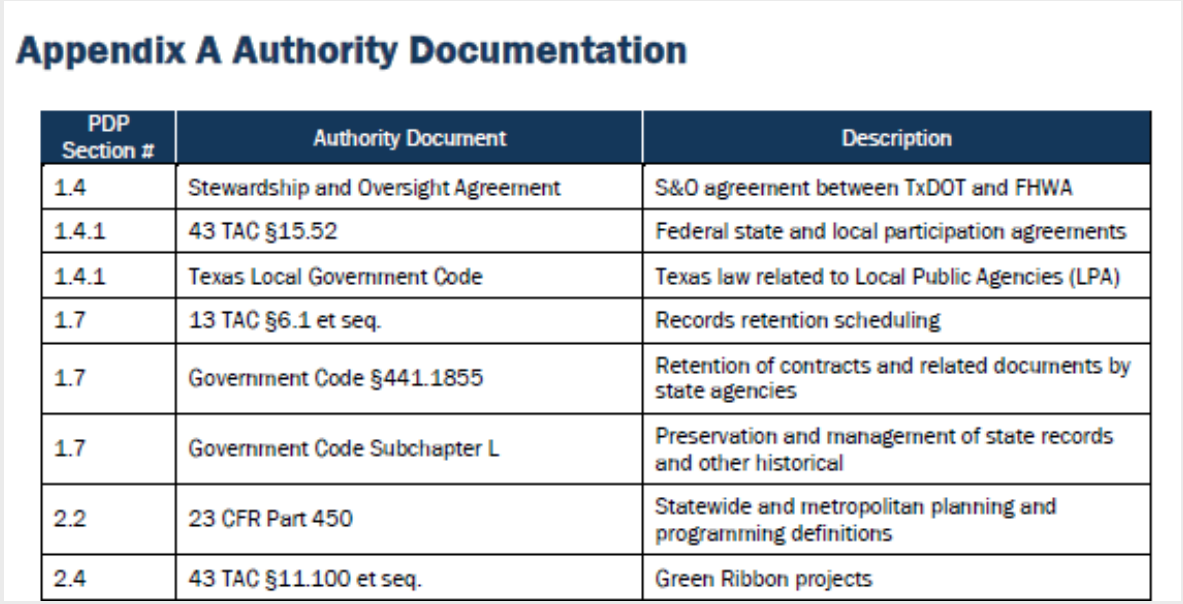
# Resources

- Authority documents
- Resources to consult
- Coordination
- Tools to use
- Available training



# eBinder Appendices

- Appendices A, B, and C are broken out to contain all external links for this eBinder in alphabetical order
  - Appendix A contains Authority Documentation Links
  - Appendix B contains Resource Links
  - Appendix C contains Tool Links
- Clicking the link in the appendix will take you to its external destination
- Appendix D contains a list of acronyms used throughout the document



**Appendix A Authority Documentation**

| PDP Section # | Authority Document | Description |
|---|---|---|
| 1.4 | Stewardship and Oversight Agreement | S&O agreement between TxDOT and FHWA |
| 1.4.1 | 43 TAC §15.52 | Federal state and local participation agreements |
| 1.4.1 | Texas Local Government Code | Texas law related to Local Public Agencies (LPA) |
| 1.7 | 13 TAC §6.1 et seq. | Records retention scheduling |
| 1.7 | Government Code §441.1855 | Retention of contracts and related documents by state agencies |
| 1.7 | Government Code Subchapter L | Preservation and management of state records and other historical |
| 2.2 | 23 CFR Part 450 | Statewide and metropolitan planning and programming definitions |
| 2.4 | 43 TAC §11.100 et seq. | Green Ribbon projects |

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# General Guidance

# What to know

- How projects fit into TxDOT's Strategic Plan
- TxDOT's Project Development Process
- What is the Stewardship and Oversight Agreement with FHWA
- Design Summary Report (DSR) update
- How to apply Project Rigor

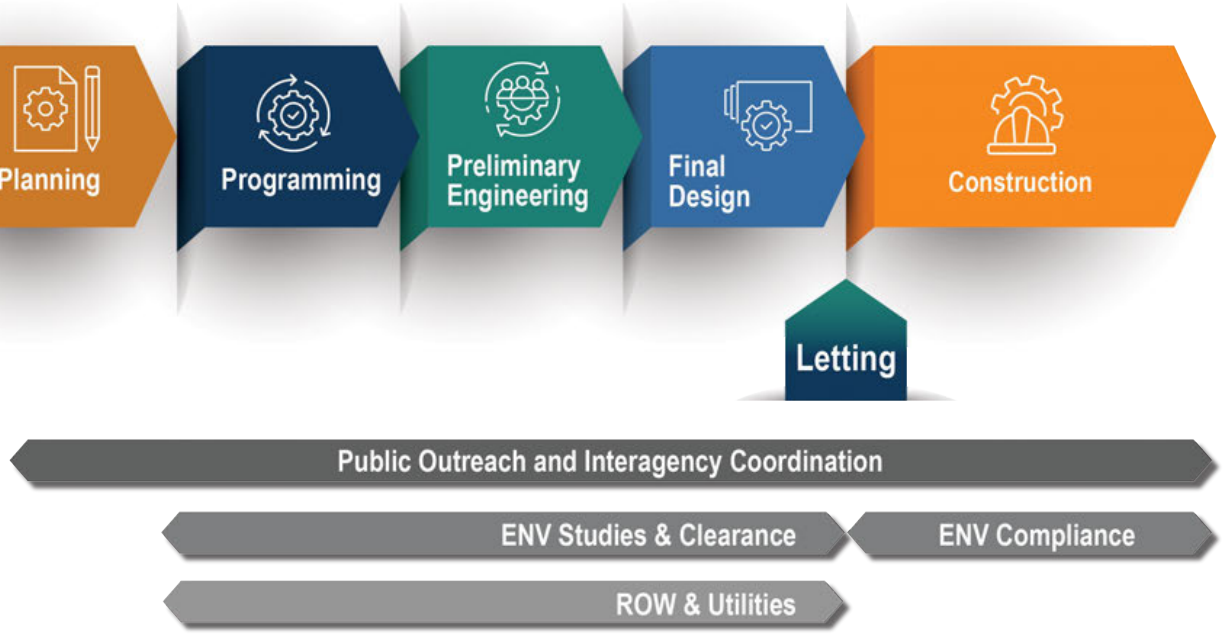



Figure 1-1: TxDOT's Project Development Process

# TxDOT's 2025-2029 Strategic Plan

- Goal: Project Development and Delivery
  - Effective planning, design and management of transportation projects
- Outcomes:
  - Percent of design projects delivered on time
  - Percent of construction projects completed on budget and time

# TxDOT's Project Development Process

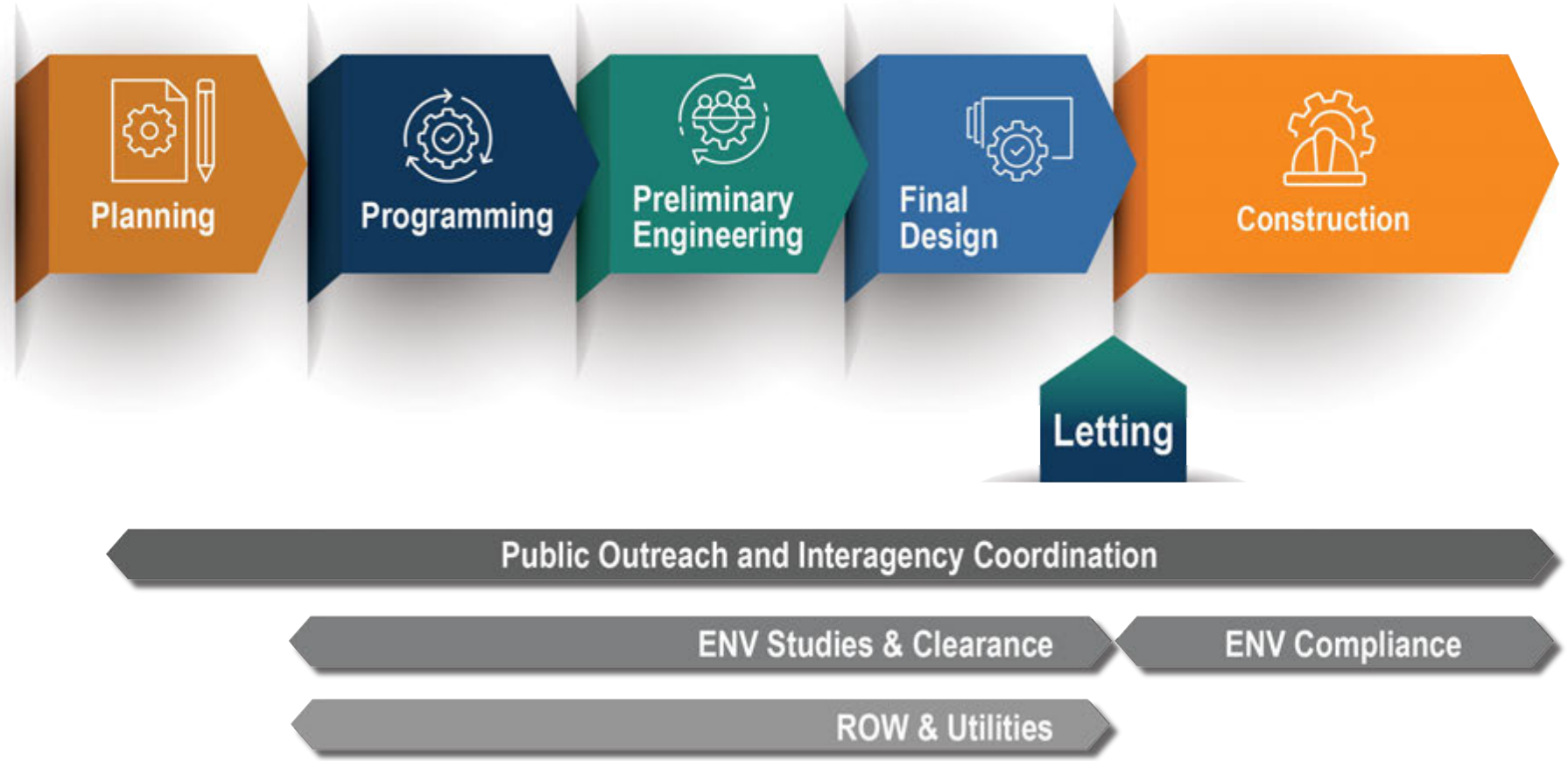
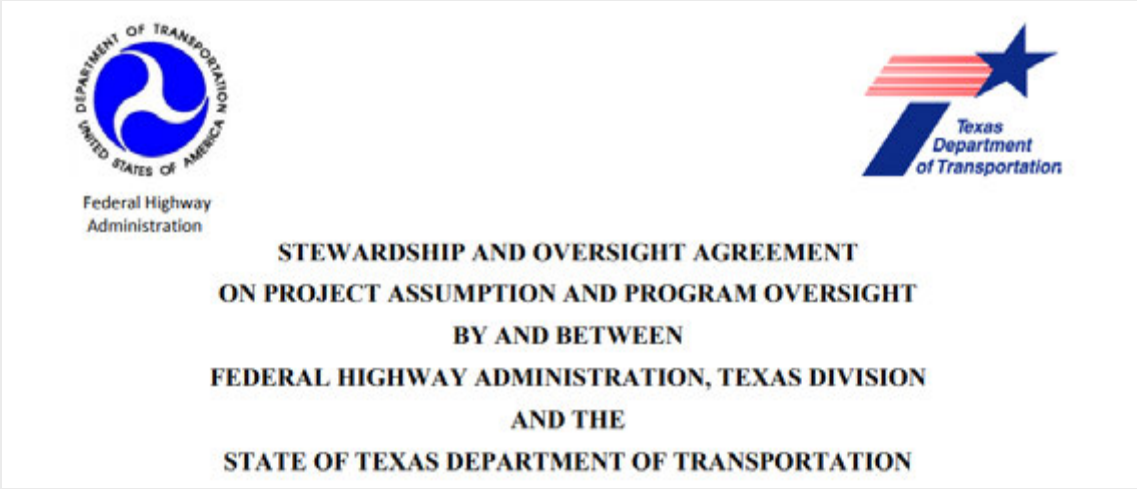



Figure 1-1: TxDOT's Project Development Process

# Stewardship and Oversight Agreement Highlights Section 1.4

- Agreement with FHWA, Texas Division establishing roles and responsibilities of project approvals for Federal-Aid Highway Program (FAHP).
- FHWA Texas Division develops a list of projects annually known as Texas Division Involved Projects (TxDIP).
- Local Government (LG) projects using federal funds are subject to FHWA requirements.
- Items included in the S&O agreement generally can be audited by FHWA at their discretion to ensure TxDOT compliance with federal requirements.

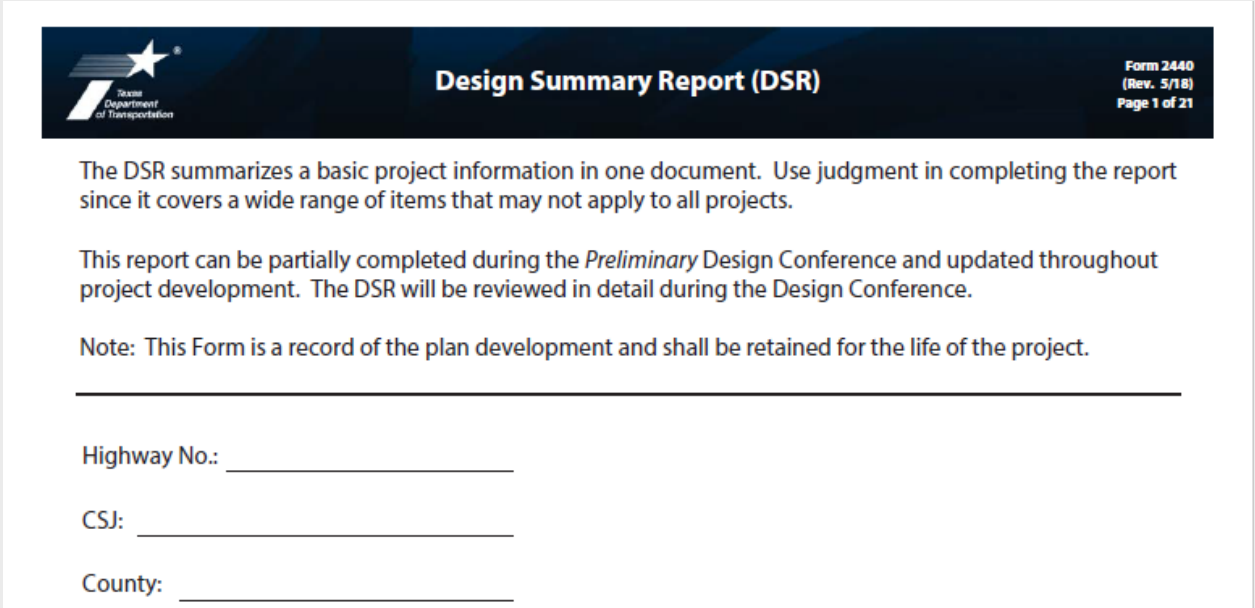

Federal Highway Administration

Texas Department of Transportation

STEWARDSHIP AND OVERSIGHT AGREEMENT
ON PROJECT ASSUMPTION AND PROGRAM OVERSIGHT
BY AND BETWEEN
FEDERAL HIGHWAY ADMINISTRATION, TEXAS DIVISION
AND THE
STATE OF TEXAS DEPARTMENT OF TRANSPORTATION

# Design Summary Report Section 1.5

- The DSR is being reworked to follow more closely with the outline and topics of the PDP.
- Different scalable versions of the DSR will be available for use based on a project's rigor.
- DES Division will send out a notice when the new DSR is available for use.



Design Summary Report (DSR)

Form 2440
(Rev. 5/18)
Page 1 of 21

The DSR summarizes a basic project information in one document. Use judgment in completing the report since it covers a wide range of items that may not apply to all projects.

This report can be partially completed during the *Preliminary* Design Conference and updated throughout project development. The DSR will be reviewed in detail during the Design Conference.

Note: This Form is a record of the plan development and shall be retained for the life of the project.

Highway No.: _____

CSJ: _____

County: _____

# Project Rigor
# Section 1.6

| Type of anticipated Environmental Document | ROW/Utility Impacts[2] | | |
|---|---|---|---|
| | **High** potential for delay to letting[3] | **Some** potential to delay for letting | **Little to No** potential delay to letting |
| **EIS** (Environmental Impact Statement) | **HIGH** Rigor[4] | **HIGH** Rigor[4] | **HIGH** Rigor[4] |
| **EA** (Environmental Assessment) | **HIGH** Rigor[4] | **MEDIUM** Rigor | **MEDIUM** Rigor |
| **CE** (Categorical Exclusion) | **HIGH** Rigor[4] | **MEDIUM** Rigor | **LOW** Rigor |

Notes:

1. Specific project details should be evaluated by Subject Matter Experts (SMEs) to determine the project's rigor.
2. ROW and Utility impacts should be determined by SMEs.
3. High potential for delay should be confirmed by appropriate staff.
4. High Rigor projects typically have high public or political interest and are generally greater than $25 million in construction cost; however, cost alone should not be the determining factor.

Table 1-1: Project Rigor

# Project Rigor
# Section 1.6

| Type of anticipated Environmental Document | ROW/Utility Impacts[2] | | |
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# Planning

Navigate to Chapter 2

# What to know

- Every project is precluded by some type of plan
- Understand how the project was initiated through the plan
- Which activities can take place in the project's authority level

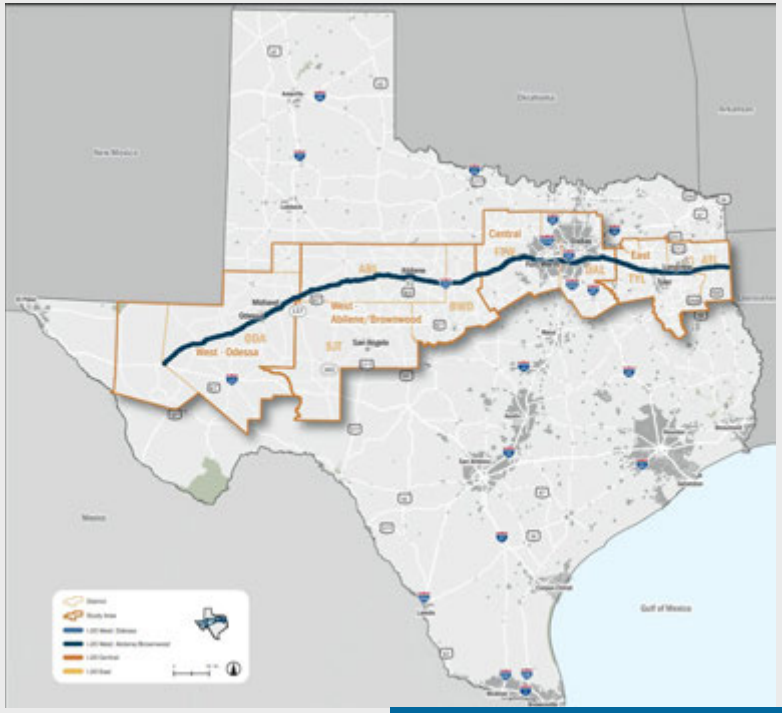

Figure 2-1: TxDOT's Project Development Process - Planning

# Transportation Plan Goals and Objectives
# Section 2.1


Figure 2-2: Statewide Long-Range Transportation Plan Goals and Objectives

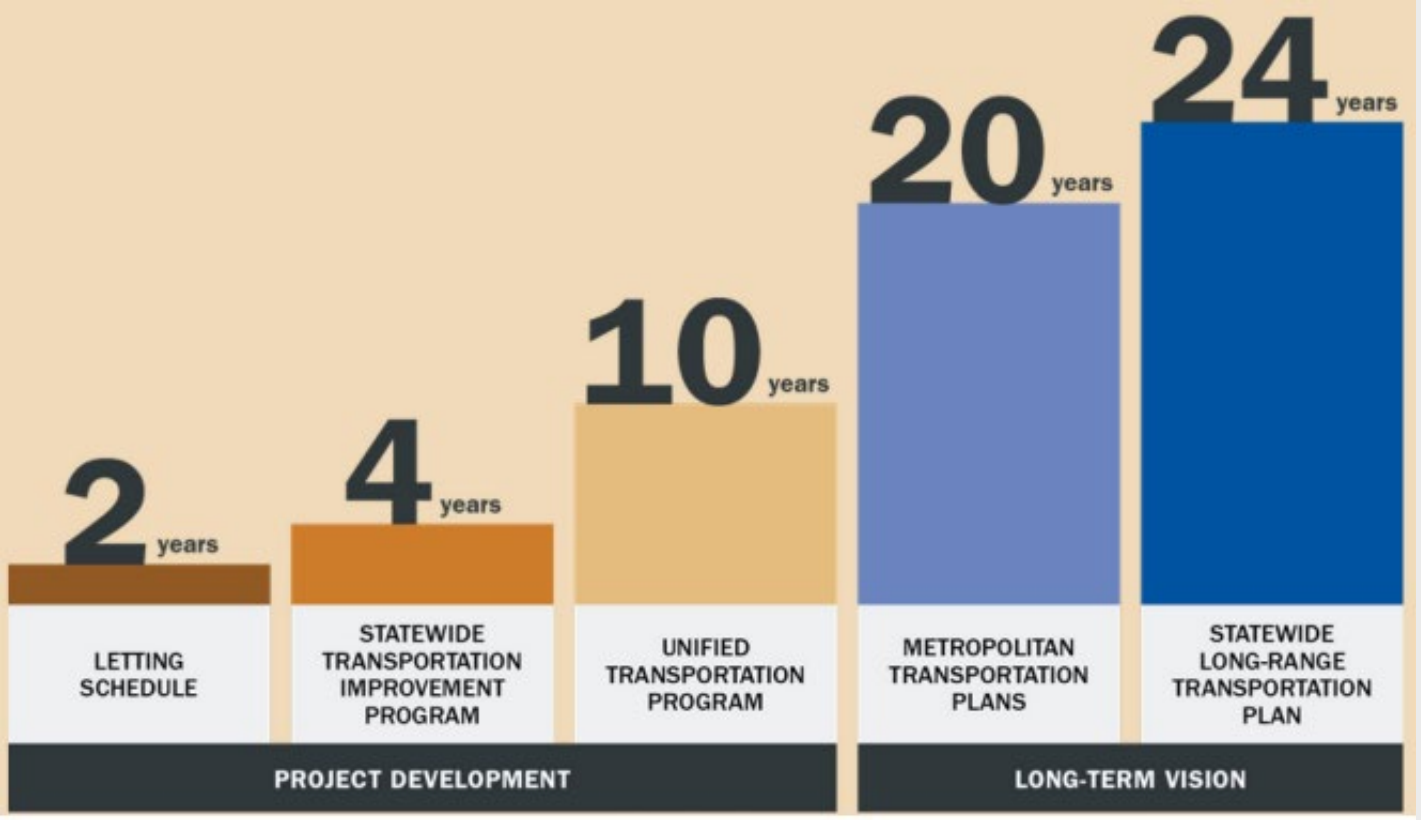
# Planning
# Sections 2.2, 2.3, 2.4, 2.5

- Long-Range Plans
  - Feasibility Studies
  - Corridor Studies
- District and Division Plans
  - Highway Bridge Program (HBP)
  - Highway Safety Implementation Program (HSIP)
  - Preventative Maintenance Plan
- Other Plans
  - Bike plans, ADA transition plans, etc.

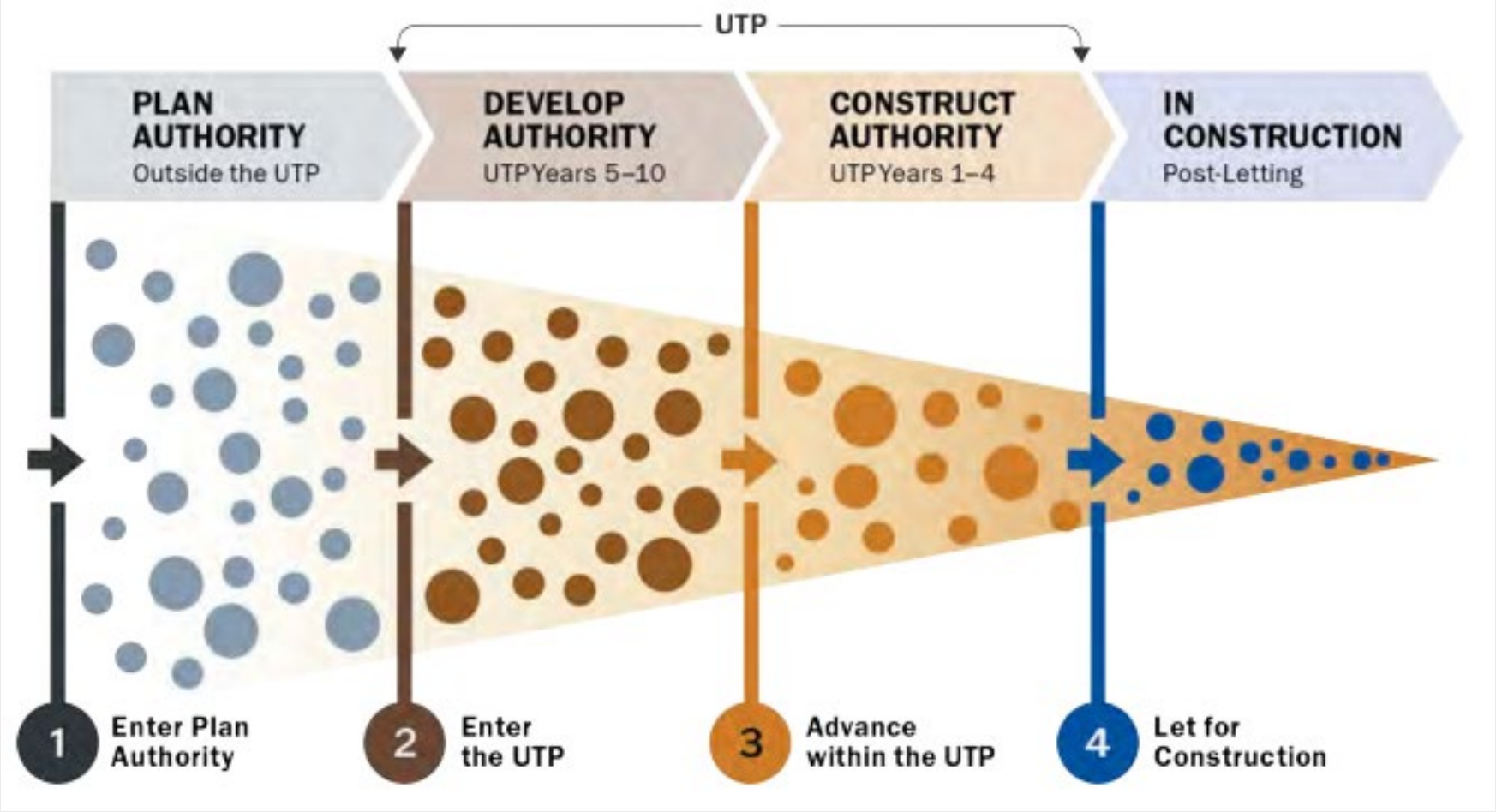


# Project Identification Section 2.6

- SLRTP and MTPs identify goals, objectives, performance measures, etc. They do not list specific projects.
- UTP/STIP/Letting Schedule identify specific projects for development and letting.



# Project Authorization
# Section 2.7



# Project Authorization
# Section 2.7

| | UTP Authority | Cost Estimate* | Preliminary Engineering[1] | Environmental[1] | Right of Way & Utilities[1] | Plans, Specification and Estimate | Other Approvals |
|---|---|---|---|---|---|---|---|
| OUTSIDE THE UTP | **Candidate**<br>*CANDPA* | Initial cost estimate | X<br>No activities | X<br>No activities | X<br>No activities | X<br>No activities | Initial discussion with TxDOT Rail Division (new construction large scale projects) |
| OUTSIDE THE UTP | **Plan Authority**<br>*PLAN* | Development of planning level estimate | Preliminary engineering for schematics (internal and external resources)<br>(up to 100% schematic) | Begin preliminary environmental review<br>*Environmental clearance*[2, 3] | Preliminary utility investigations & coordination preliminary ROW scoping<br>*Rare Exception: ROW may be acquired with direct Commission authorization* | X<br>No activities | Begin formal railroad coordination |
| INSIDE THE UTP | **Develop Authority**<br>*DDA, SWDA, 6DA, 8DA and UTP Categories 1-12* | Refine and monitor cost estimate and update at significant milestones or project changes | Preliminary engineering, schematic approval | Environmental clearance[2, 3] | Right of way acquisition and Utility relocations<br>*(ENV clearance and legal descriptions is a prerequisite)* | Develop PS&E[4] | Continue railroad coordination |
| INSIDE THE UTP | **Construct Authority**<br>*UTP Categories 1-12* | Refine and monitor cost estimate and update at significant milestones or project changes | N/A | Environmental clearance[2, 3] | Right of way acquisition, Utility relocations<br>*(ENV clearance and legal descriptions is a prerequisite)* | Final PS&E[4] | Finalize federal/state requirements (FPAA), Local agreements (AFA), Finalize railroad agreements, and receive permits (USACE and USCG) |

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# Programming

Navigate to Chapter 3

# What to know

- Project scoping is essential to identify project goals and objectives
- Project level planning identifies specific requirements and constraints associated with a project
- Agreements with other agencies should be identified early

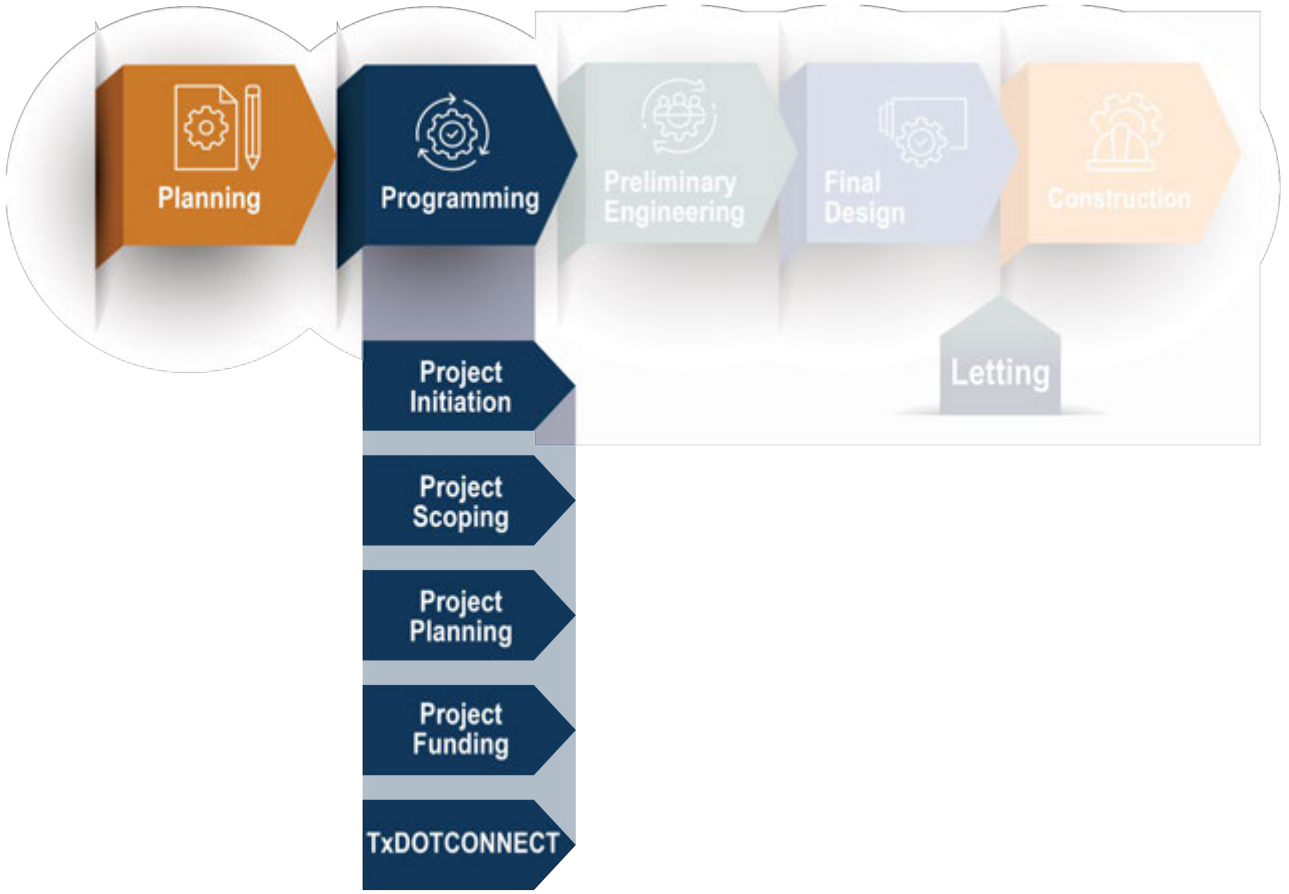



Figure 3-1: TxDOT's Project Development Process - Programming

# Project Scoping
# Section 3.3

- Project scoping establishes the baseline project scope at the early stages of the project.
- Sets the basis for the project's "Purpose and Need" statement (environmental document)
- Project Scoping Meeting – high/medium rigor projects
- Identifies procurement needs (survey, geotech, design, etc.)
- Document in DSR

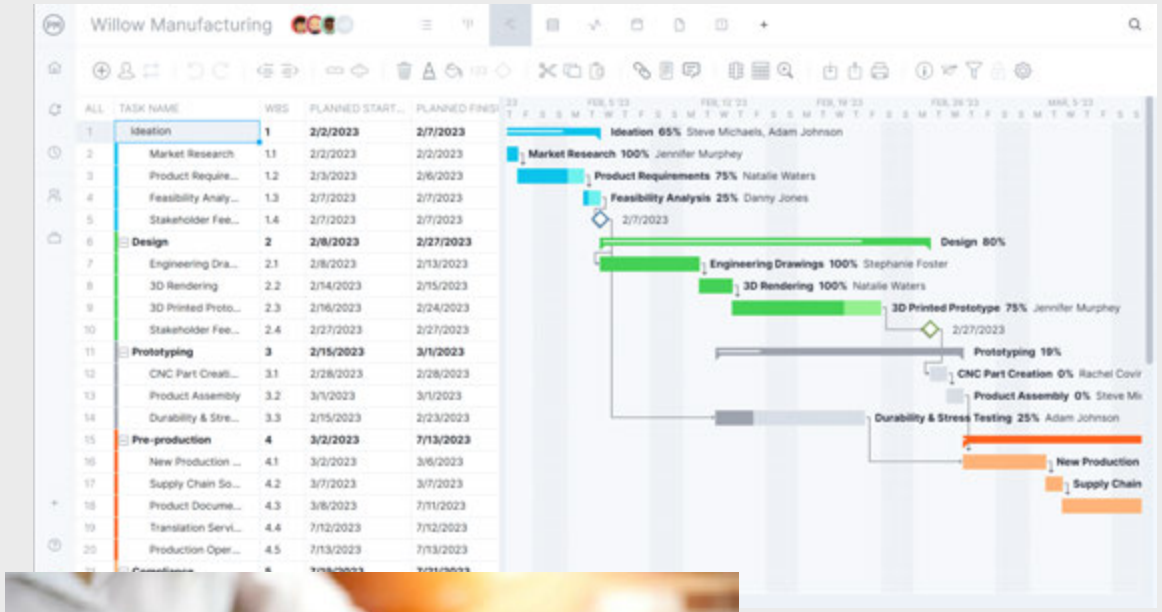
# Project Scoping Meeting Outcomes
# Section 3.3.1

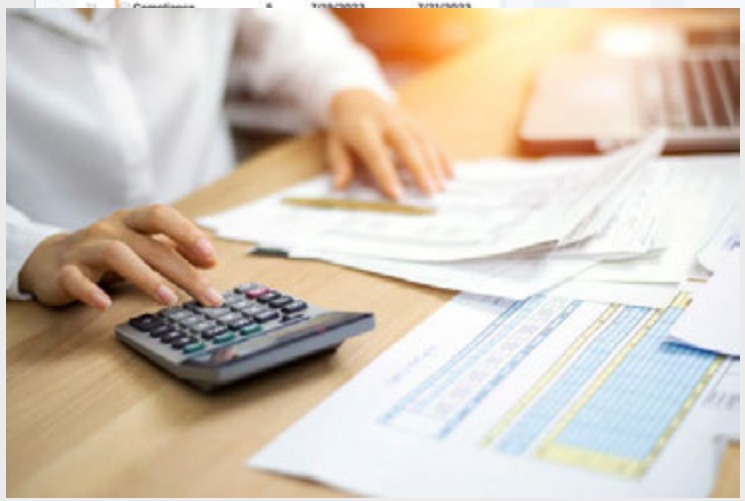
***Project Objectives and Goals***

| | |
|---|---|
| Project Need: | *Describe the project location as it currently is and what needs to be fixed, including # of lanes, sidewalks, major intersections, structures, pavement scores, etc.* |
| Project Solution: | *Describe the proposed work to be performed to address the project need.* |
| Project Goals: | *Describe specific areas of improvement for the project (i.e., improve safety by…, improve drainage by…, improve ride by…., remediate ADA barriers …., improve pedestrian connectivity by...)* |
| Performance Metrics: | *Describe specific measures of performance (i.e., reduce crashes by XX%, eliminate flooding, improve ride score by…)* |
| Project Constraints: | *Describe items that limit a project team's options such as schedule, resources, budget, technology, etc.* |
| Project Assumptions: | *Provide a list of considerations that are considered true or certain for planning purposes (i.e., project will acquire additional ROW, project will not add additional lanes, etc.)* |

# Project Scoping Meeting Outcomes
# Section 3.3.1

- Existing and proposed activities
- High level environmental impacts
- Traffic and safety analysis procedures to include
- Potential ROW and utility impacts
- Project delivery method
  - Traditional plan development
  - Digital delivery project
- Risk Assessment



# Risk Assessment
# Section 3.3.2

- High level risk assessment should be performed at early stages
- More detailed level of risk assessment should be conducted throughout project development
- Level of risk management is dependent on project rigor
- Risk Register
- PMD 142 – Risk Management

*Transportation Programs Division (TPD) can assist in the facilitation of risk management and risk workshops.*

# Project Level Planning Section 3.4

- Planning partners
  - MPO
  - RPO
  - COGs
  - Local Governments
  - Others
- Document in DSR

***Project Planning Partners Involved in Project***

| | Organization: | Name: | Contact Name: |
|---|---|---|---|
| ☐ | MPO: | | |
| ☐ | RPO: | | |
| ☐ | Regional Planning Councils: | | |
| ☐ | Local Government: | | |
| ☐ | Economic Development Council: | | |
| ☐ | Chamber of Commerce: | | |
| ☐ | Other:_____ | | |

***Compliance with Existing Planning Documents***

| | |
|---|---|
| Is project in a non-attainment or maintenance area? | Yes |
| If yes, is the MPO's MTP/TIP in conformance with the State Implementation Plan? | |
| If no, does MPO's TIP need amending? | |
| Date of Coordination with MPO: | |
| Person Responsible for Coordination: | |
| Comments on Coordination: | |
| Is project within a metropolitan area with > 200,000 populations? | |
| If yes, is the Congestion Management Process (CMP) | |

# Project Funding and Agreements Section 3.5

- Funding Agreements
  - Advance Funding Agreement (AFA)
  - Voluntary AFA
  - Local On-System Agreement (LOSA)
  - Multiple Use Agreement (MUA)
  - Landscape Maintenance Agreement
  - Municipal Maintenance Agreement
  - Driveway Permit
  - Donation Agreements

**Table 3-4: Agreements and Permits**

| Agreement/Permit Type | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Type of Entity** | **Donation Agreement** | **Driveway Permit** | **Municipal Maintenance Agreement** | **Landscape Maintenance Agreement** | **Multiple Use Agreement (MUA)** | **Local On-System Agreement (LOSA)** | **Voluntary Advance Funding Agreement (VAFA)** | **Advance Funding Agreement (AFA)** |
| Brief descriptions of allowable improvement types by agreement type | Private entity funded for improvements such as deceleration lanes /signals. Constructed by private entity contractor or TxDOT and maintained by TxDOT. | Provide improved access between edge of State roadway and adjacent property line | Defines construction and maintenance responsibilities for roadways on State Highway System within municipal limits of cities | Defines construction and maintenance responsibilities for landscaping on State Highway System within municipal limits of cities | Authorizes local government to construct and maintain facilities within TxDOT ROW at local government's expense | Local government funded for improvements such as decelaration lanes /signals. Constructed by Local Government and maintaned by TxDOT | Local government funded improvement project being performed by TxDOT such as construction change order | An improvement project being jointly performed, funded, or maintained by TxDOT and/or a local government |
| **District/Division "Owner" of Agreement** | | | | | | | | |
| | Contract Services (CSD) | Districts | Maintenance (MTN) | Maintenance (MTN) | Maintenance (MTN) | Contract Services (CSD) | Contract Services (CSD) | Contract Services (CSD) |
| **Entity entering agreement with TxDOT** | | | | | | | | |
| Private Entity | X | X | | | | | | |
| City | | X | X | X | X | X | X | X |
| Other Local Government | | X | | | X | X | X | X |
| **Available funding sources** | | | | | | | | |
| FHWA or TxDOT | | | N/A | N/A | | | | X |
| Private Entity | X | X | N/A | N/A | | | | |
| City | | X | N/A | N/A | X | X | X | X |
| Other Local Government | | X | N/A | N/A | X | X | X | X |
| **Entity managing/performing construction** | | | | | | | | |
| TxDOT | X | | X | X | | | X | X |

# Project Setup in TxC Section 3.6

- Set up project in TxDOTCONNECT (TxC) prior to beginning work
- Reference TxC guidance documents and trainings

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# Preliminary Engineering

Navigate to Chapter 4

# Preliminary Engineering Phase

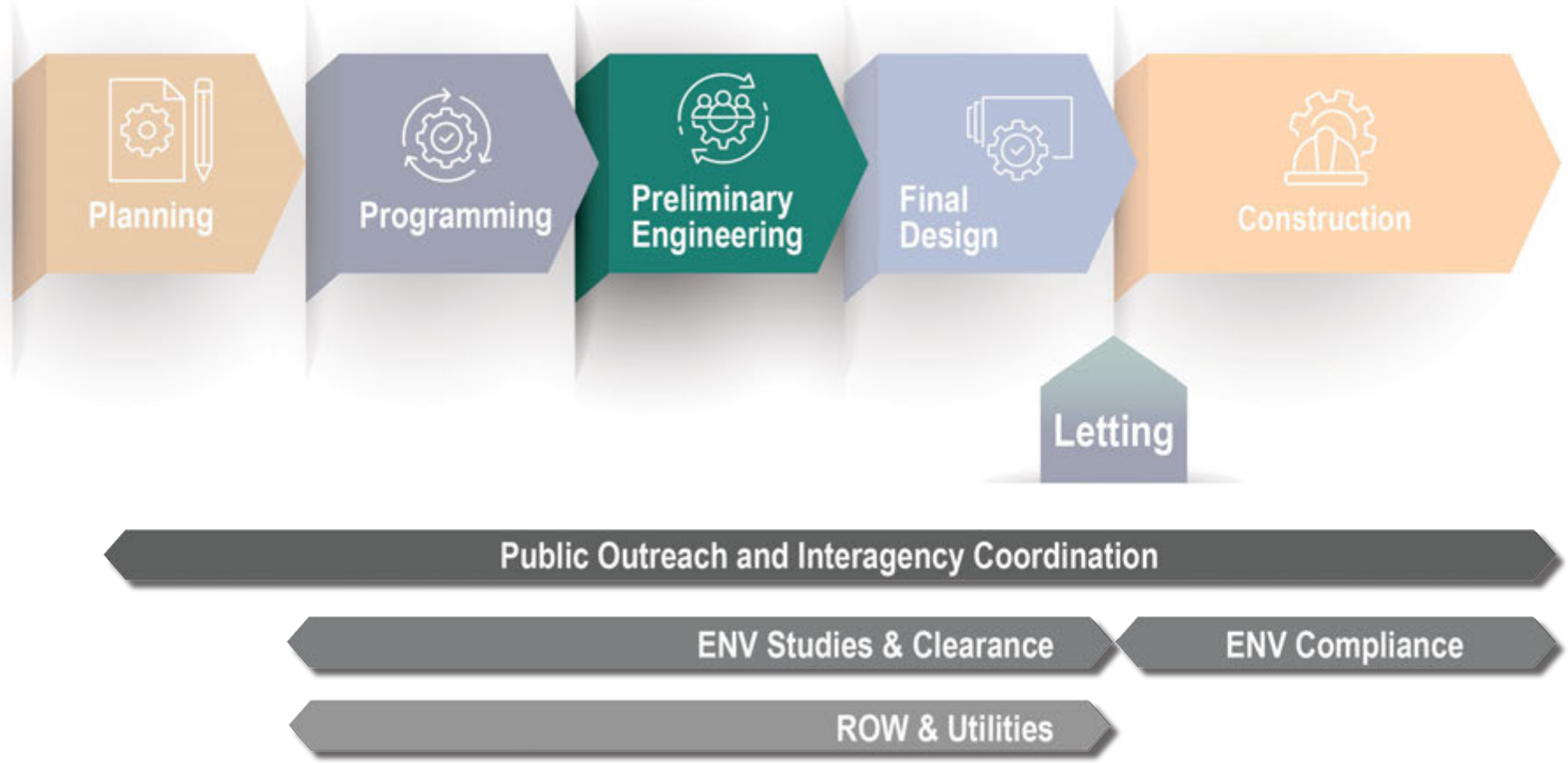



Figure 4-1: TxDOT's Project Development Process – Preliminary Engineering

# Preliminary Engineering Phase

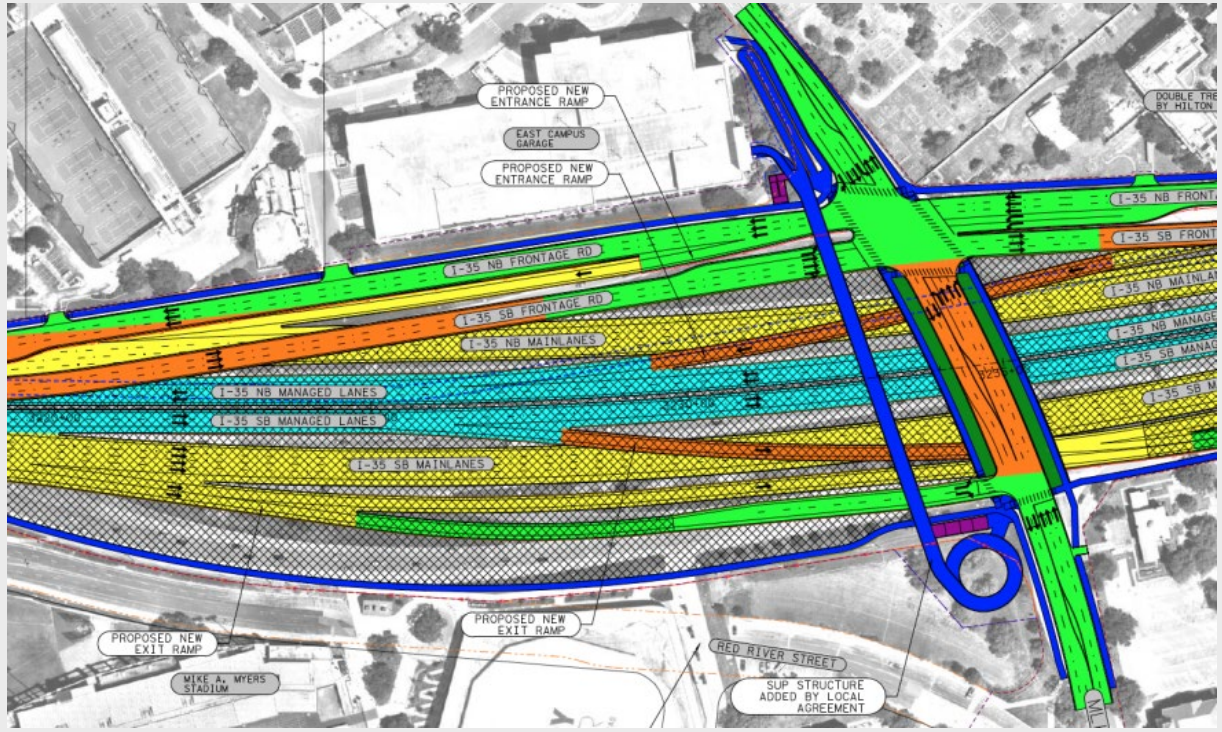
- All projects have some form of preliminary engineering
- Not just associated with developing a geometric schematic
- Should result in an Initial/30% milestone submission – Table 6.1 from PS&E Preparation Manual

**Table 6-1: Milestone Submittals**

| Submittal[1] | Description | Deliverables[2] | TxDOT Review Responsibility |
|---|---|---|---|
| **Initial**<br>(30)%[3] | Preliminary Engineering Submittal | 100% Approved Geometric Schematic<br>or<br>30% PS&E milestone | • TxDOT PM and others as identified by the District |

# What to know

- Preliminary Design Concept Conference (PDCC)
- Geometric Alternatives Analysis
- Intersection Evaluation Control (ICE)
- Geometric schematic vs geometric layout



# PDCC
# Section 4.2

- Review project scope
- Survey requirements
- Traffic data needs
- Identify additional data, plans, studies, reports, etc.
- ROW/Utilities
- Stakeholders

# Geometric Alternatives Analysis Section 4.3

- Multiple routes
- Multiple alignments
- "Conceptual" typical sections/alignments
- Public involvement
- Quantitative/qualitative analysis
- Construction Cost Estimate (CCE)
- Intersection Control Evaluation (ICE)

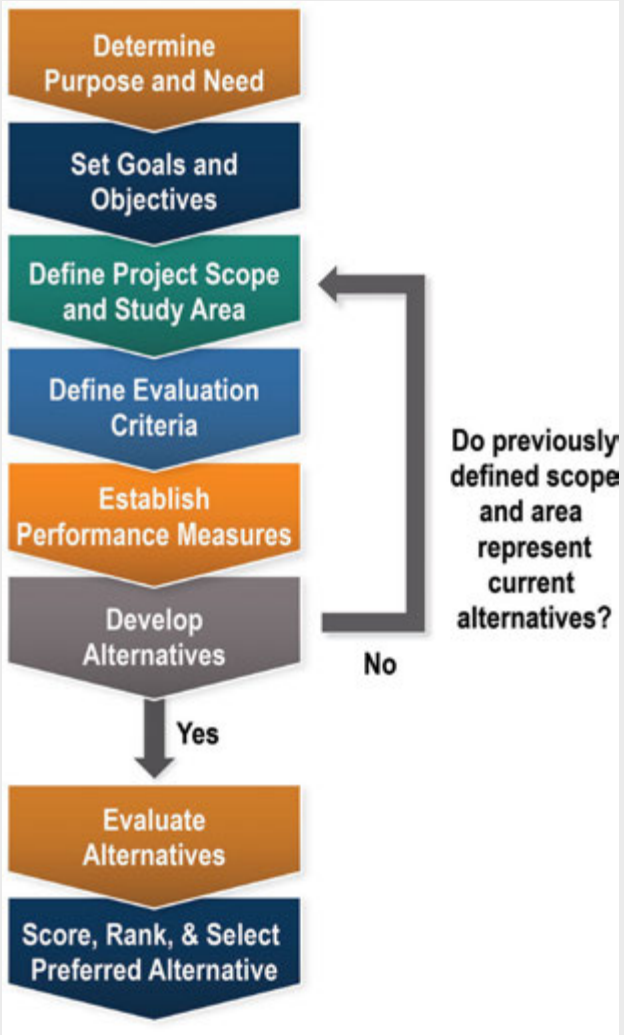
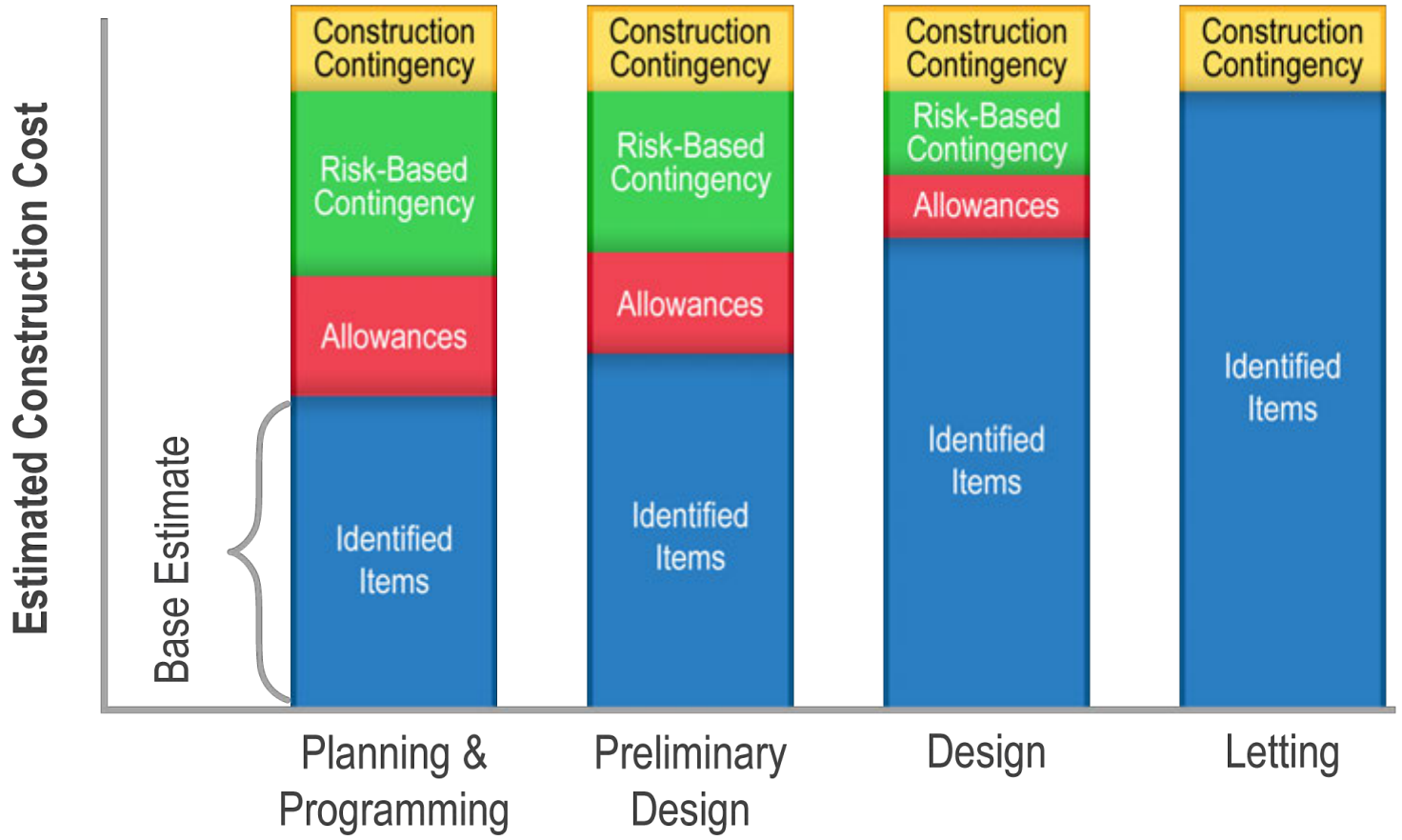



Figure 4-3: Alternative Analysis Process

# Construction Cost Estimate Section 4.3.1.4

- Construction Cost Estimating Guidance (CCEG)
- CCEG spreadsheet tool
- Risk-based contingency
- PMD 142 – Construction Cost Estimating



# Intersection Control Evaluation
# Section 4.3.2.2

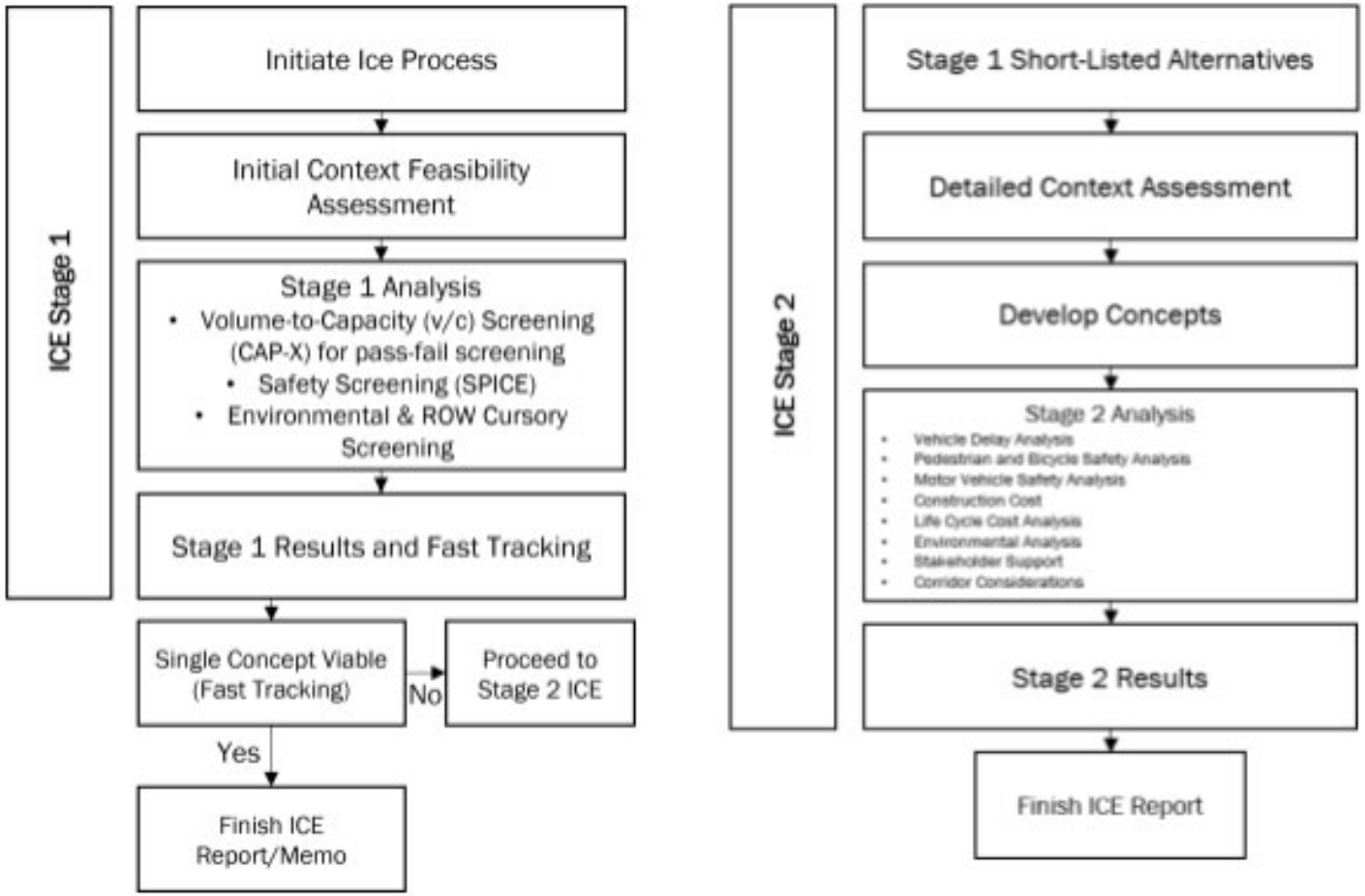



**Figure 4-4: ICE Stage 1 and Stage 2 Workflows**

- See TSAP Manual for detailed discussion and process
- Document in DSR

# Geometric Schematic Design Section 4.4

- Required for projects that are a:
  - New location project
  - Added capacity project
  - Reconstruction with added ROW
  - Interstate ramp relocation project
  - Environmental Impact Statement project
- Typically, 4R design
- Initial/30% milestone submission
- Schematic QC Checklist

**Schematic Roll Plot QC Checklist**

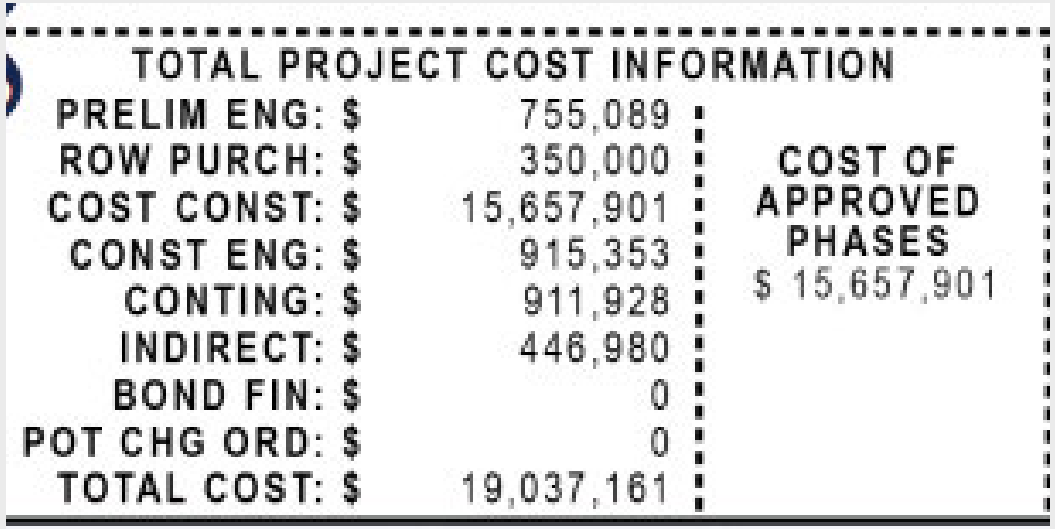
| Conceptual* (30%) | Preliminary (60%/90%) | Final (100%) | N/A | QC Item |
|---|---|---|---|---|
| **Borders/Title Block** | | | | |
| ☐ | ☐ | ☐ | ☐ | Schematic Roll sheet size: |
| ☐ | ☐ | ☐ | ☐ | Freeway: Width - 3 feet; Length < 10 feet |
| ☐ | ☐ | ☐ | ☐ | Arterials: Width - 2 feet; Length < 10 feet |
| ☐ | ☐ | ☐ | ☐ | For schematic roll(s), show Title Block at both ends of each roll. Show following info: |
| ☐ | ☐ | ☐ | ☐ | TxDOT Registered Logo, and Term "Texas Department of Transportation" |
| ☐ | ☐ | ☐ | ☐ | TxDOTCONNECT Project information in following order: |
| ☐ | ☐ | ☐ | ☐ | Project Name* (eg. IH 35) From Hwy to Hwy) - matching TxDOT CONNECT) |
| ☐ | ☐ | ☐ | ☐ | Control-Section-Job (CSJ) Number* or Numbers for multiple CSJ's |
| ☐ | ☐ | ☐ | ☐ | County or Counties |
| ☐ | ☐ | ☐ | ☐ | Date (eg. May 2022) *Roll # of # (for rolls) |
| ☐ | ☐ | ☐ | ☐ | Project Length (miles)*, Roadway Name (s), Design Speed, Functional |
| ☐ | ☐ | ☐ | ☐ | In a Table - Existing Traffic (xxxx) and Proposed Traffic (xxxx) |
| ☐ | ☐ | ☐ | ☐ | Project Location Map (key map) showing CSJ with respective Begin and End |
| ☐ | ☐ | ☐ | ☐ | Station Equation, if have any, otherwise N/A at the bottom of location map |
| ☐ | ☐ | ☐ | ☐ | Engineer Firm Name and P.E. signature block |
| ☐ | ☐ | ☐ | ☐ | Bar Scale with following scale format: |
| ☐ | ☐ | ☐ | ☐ | Freeway: H: 1" = 200' V: 1" = 20' |
| ☐ | ☐ | ☐ | ☐ | Arterials: H: 1" = 100' V: 1" = 10' |
| ☐ | ☐ | ☐ | ☐ | Collectors/Local: H: 1" = 100' V: 1" = 10' |
| ☐ | ☐ | ☐ | ☐ | Copyright (20##) by Texas Department of Transportation; all rights reserved) |
| ☐ | ☐ | ☐ | ☐ | Matchlines (STAs) where applicable |
| ☐ | ☐ | ☐ | ☐ | Legend for all items in the plan view (will be outside of title block) |
| ☐ | ☐ | ☐ | ☐ | Date and source of Aerial image |

# Geometric Layout
# Section 4.10

- Other project types
- Simplified design elements
- Initial/30% milestone submission

# Total Project Cost (TPC)

- TPC includes:
  - Preliminary Engineering costs
  - ROW purchase costs
  - Construction cost
  - Construction engineering costs
  - Contingencies
  - Bond financing
  - Change orders



| TOTAL PROJECT COST INFORMATION | | |
|---|---|---|
| PRELIM ENG: $ | 755,089 | |
| ROW PURCH: $ | 350,000 | COST OF APPROVED PHASES |
| COST CONST: $ | 15,657,901 | $ 15,657,901 |
| CONST ENG: $ | 915,353 | |
| CONTING: $ | 911,928 | |
| INDIRECT: $ | 446,980 | |
| BOND FIN: $ | 0 | |
| POT CHG ORD: $ | 0 | |
| TOTAL COST: $ | 19,037,161 | |

# Total Project Cost (TPC)

- Value Engineering (VE) Studies (Section 4.5.1): > $50M (TPC), or
  > $40M (TPC) (All bridge)
- "Other" Projects (Section 3.4.8): $100M to $500M (TPC)
  - Initial Financial Plan (IFP)
  - Financial Plan Annual Update (FPUA)
- Major Projects (Section 3.4.8): >$500M (TPC)
  - Cost and Schedule Risk Assessment (CSRA)
  - Initial Financial Plan (IFP)
  - Financial Plan Annual Update (FPUA)
  - Project Management Plan (PMP)

*Contact Design Division early if any of these TPC conditions apply.*

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# Environmental and Public Involvement

Navigate to Chapter 5

# Environmental

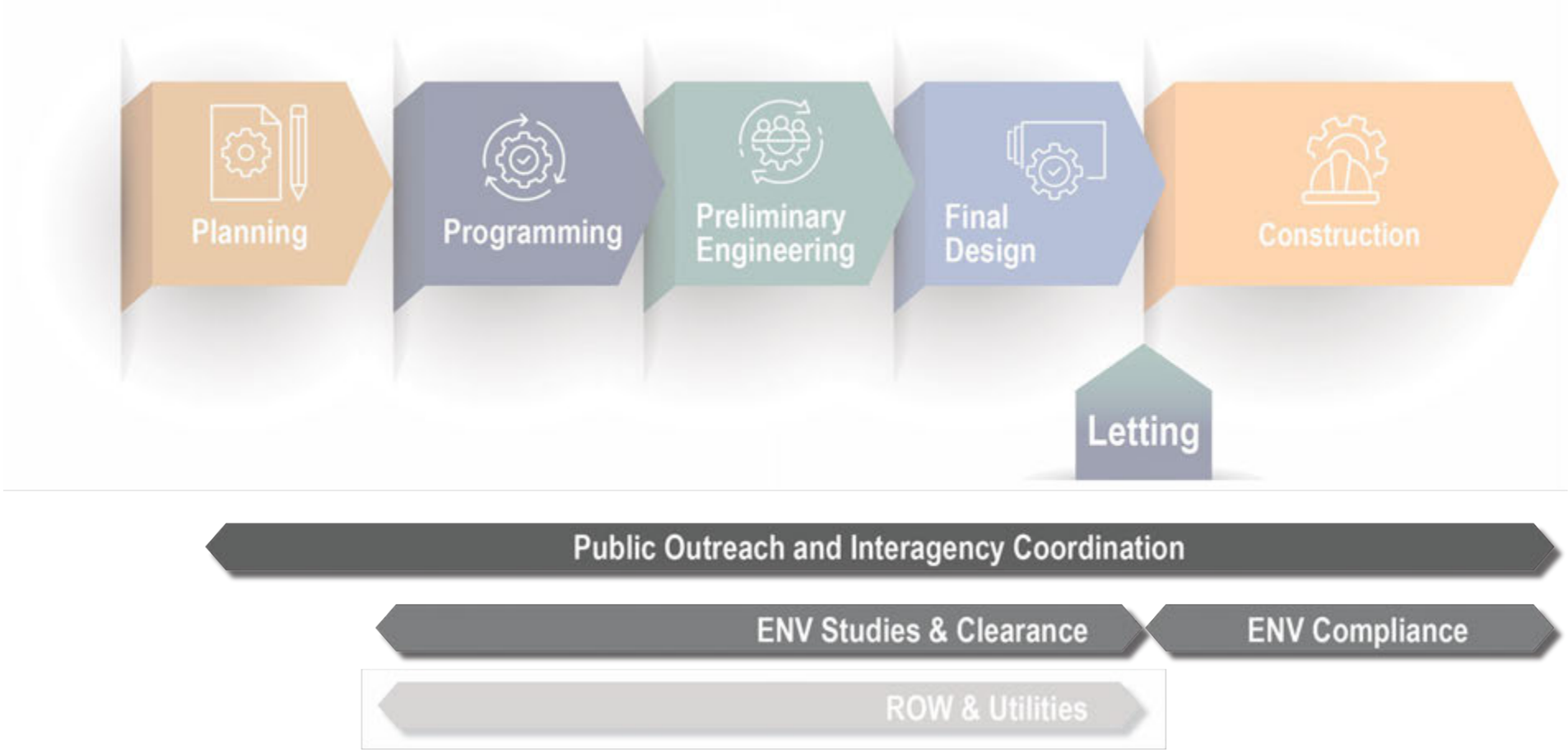


Figure 5-1: TxDOT's Project Development Process – Environmental and Public Involvement

# What to know

- TxDOT’s responsibility
- Where to find guidance
- Types of environmental documentation
- Activities associated with
  - Planning
  - Preliminary Engineering
  - Final Design

# TxDOT's Environmental Process Responsibility Section 5.2

- Assignment Memorandum of Understanding (MOU)
  - TxDOT has been assigned review and approval responsibility/authority by FHWA under National Environmental Policy Act (NEPA) for Texas transportation projects that are federally funded
  - TxDOT accepted jurisdiction for compliance, discharge, and enforcement through the MOU.
- Title 43, Chapter 2 of Texas Administration Code (TAC)
  - TxDOT is responsible for complying with the TAC for state funded transportation projects.

# General Guidance
# Section 5.3

- Environmental clearance and compliance required for:
  - Federally funded transportation projects
  - Any portion of a state transportation project taking place on a state highway system or TxDOT owned property
- TxDOT's ECOS system and Environmental Guides/toolkit have been developed to assist in the NEPA and review process.

## Environmental Compliance Toolkits

TxDOT's environmental review process is explained in its Environmental Guide, which consists of two volumes:

| Date | Title | Description | Format |
|---|---|---|---|
| 04/24 | Environmental Guide: Volume 1 Process | Explains how to use TxDOT's Environmental Compliance Oversight System (ECOS) to environmentally approve transportation projects | Environmental Guide: Volume 1 Process |
| 04/24 | Environmental Guide: Volume 2 Activity Instructions | Contains individual instructions for completing each of the Activities, Reviews, and Coordinations generated in ECOS that may be required to environmentally approve a given transportation project | Environmental Guide: Volume 2 Activity Instructions |

# Types of Environmental Documentation Section 5.4.2

| | |
|---|---|
| **Environmental Impact Statement (EIS)** | • An EIS is prepared for a project that may have significant social, economic, or environmental impacts. The EIS is very detailed. |
| **Environmental Assessment (EA)** | • An EA is required for a project not meeting CE requirements and when significance of impacts is not known. |
| **Categorical Exclusion (CE)** | • A CE is required for projects which, based on past experience, do not involve significant environmental impacts. |

# Environmental Process through Project Development Section 5.5

- Planning
- Programming
- Preliminary Engineering
- Final Design

**Environmental**

Compliance toolkits, EMS, and construction BMPs »

# Public Involvement
# Section 5.7

- Types of Public Involvement:
  - Notice and opportunity to comment (NOC)
  - Public meetings
  - Notice affording an opportunity for a public hearing (NAOPH)
  - Public Hearings
  - Comments are documented in a Public Comment Response Matrix for any type of public involvement
- ENV Division's Environmental Handbook – Public Involvement
- TPP Division – Public Involvement Section

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# Right of Way and Utilities

Navigate to Chapter 6

# Right of Way and Utilities

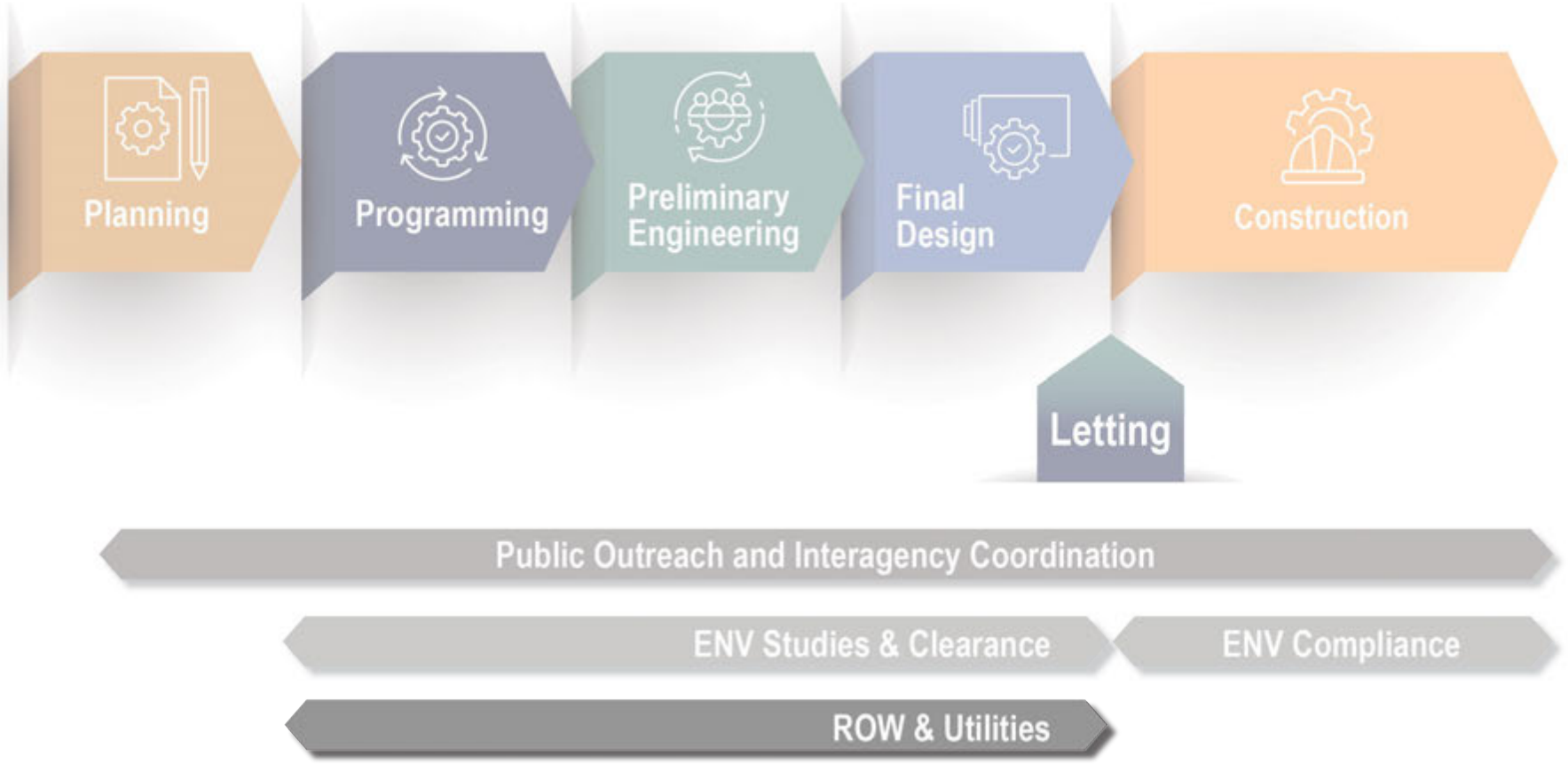


Figure 6-1: TxDOT's Project Development Process – ROW and Utilities

# What to know

- ROW Acquisition Process
- Utility Accommodation Process
- ROW/Utility Participation Percentages

# ROW Acquisition Process Section 6.3

- Consult with ROW staff for impacts that may have prohibitive costs for:
  - Acquisition of improvements;
  - Major utility relocation;
  - Severance damages;
  - Wetland mitigation;
  - Hazardous material site cleanup;
  - Relocation assistance

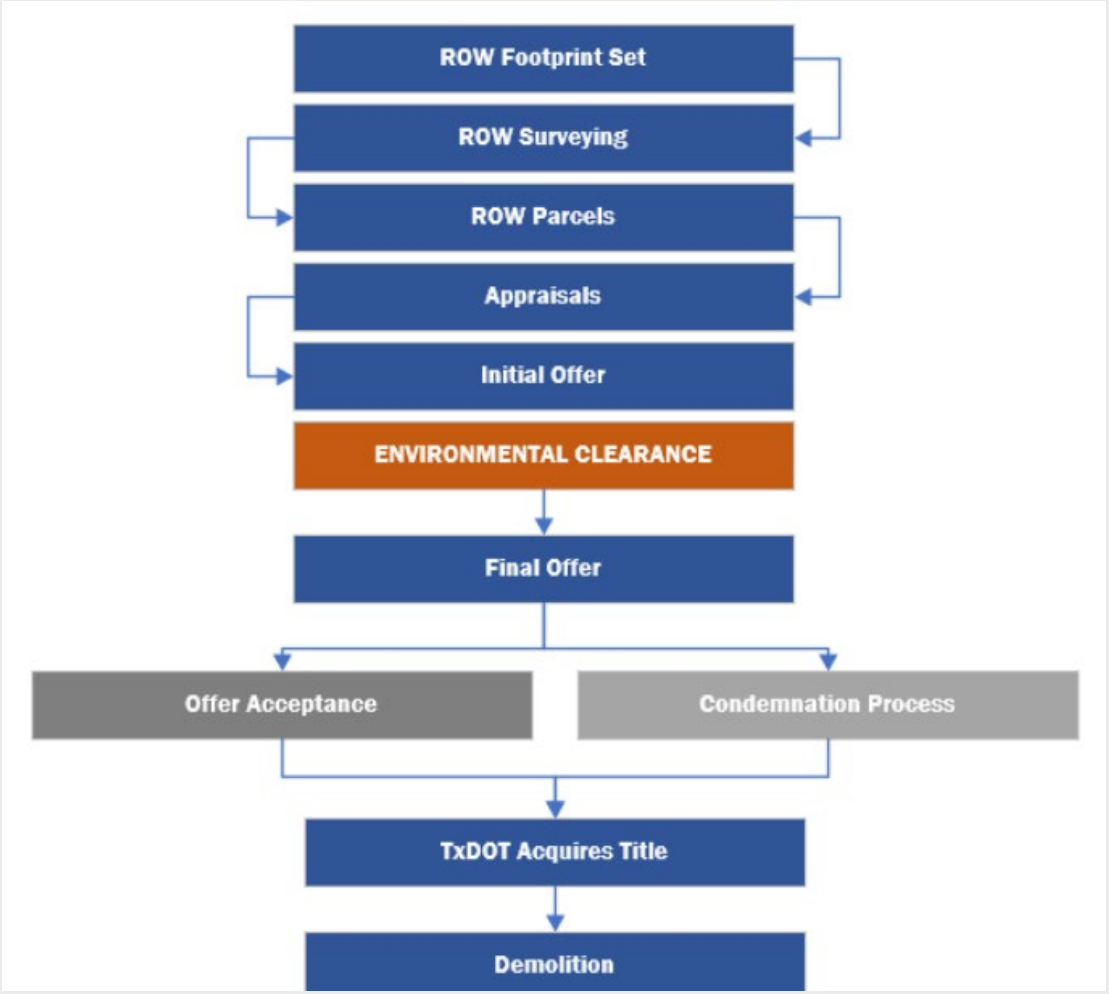


Figure 6-2: TxDOT's ROW Acquisition Process

# Utility Accommodation Process Section 6.4

- Determine utility conflicts and in order of preference:
  - Avoid, mitigate, or accommodate
- Contact utility owners as soon as possible (one year or longer is ideal)
- Utility agreements must be executed for State cost participation
- Utility adjustments cannot commence until after ENV clearance
- Clear utility certifications are typically required before a project can be advertised for bidding

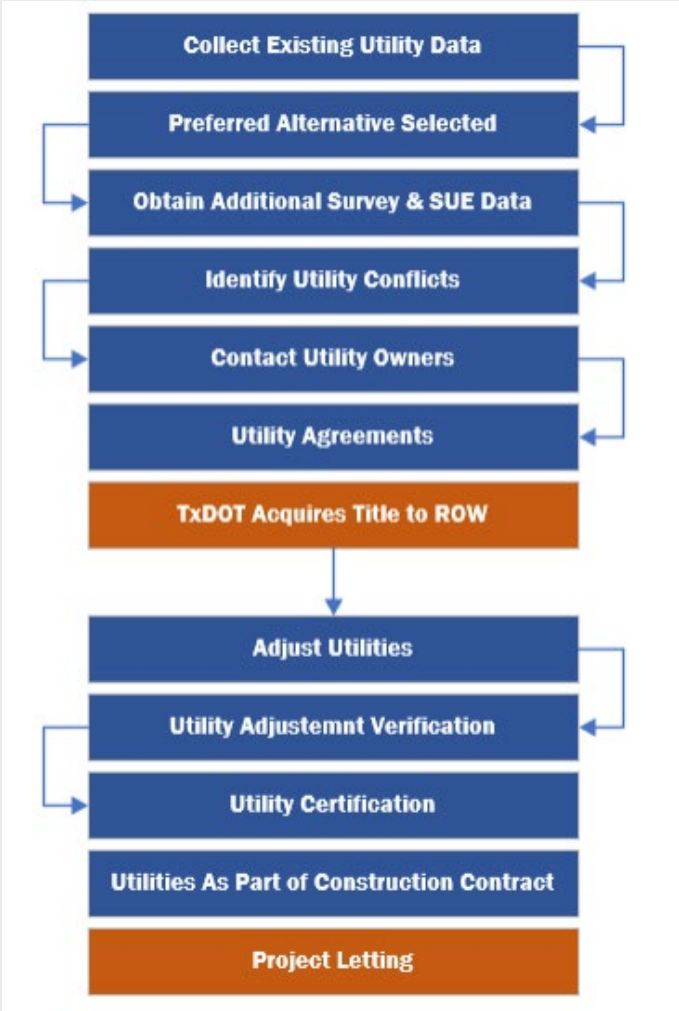


Figure 6-3: Utility Accommodation Process

# ROW and Utility Participation Percentages Section 6.5

**Table 6-1: ROW and Utility Participation**

| Condition | Right of Way or Eligible Utilities |
|---|---|
| Project is on the Interstate Highway System | 100% State or 90% Federal/10% State or 80% Federal/20% State |
| Project is on the State Highway System (except Farm to Market System or Phase 1 Trunk System Corridor) | 90% State/10% Local or 80% Federal/10% State/10% Local |
| Local On-system Improvement Project | Right of Way - N/A Utilities - 100% Local |
| Project is not on the State Highway System | 100% Local or 80% Federal/20% Local |
| Project is on the FM/RM system (New FM/RM route) | 100% Local |
| Project is on the FM/RM system (Existing FM/RM | 100% State or 80% Federal/20% State |

# Utility Reimbursable/Non-reimbursable Costs Section 6.5.1, 6.5.2

Reimbursable Utility Costs

- Improved segments of state highway facility will occupy compensable property of a utility
- Highway is designated as part of the National System of Interstate and Defense Highways.

Non-Reimbursable Utility Costs

- Relocation is essential to timely completion of a state highway improvement.
- Continuous service to utility customers is essential to the local economy or well-being.
- Short term funding situation would prevent a utility from paying the cost.
- Department has contacted the utility and reached an agreement that work activates will comply with laws and regulations.

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# Final Design

Navigate to Chapter 7

# Final Design

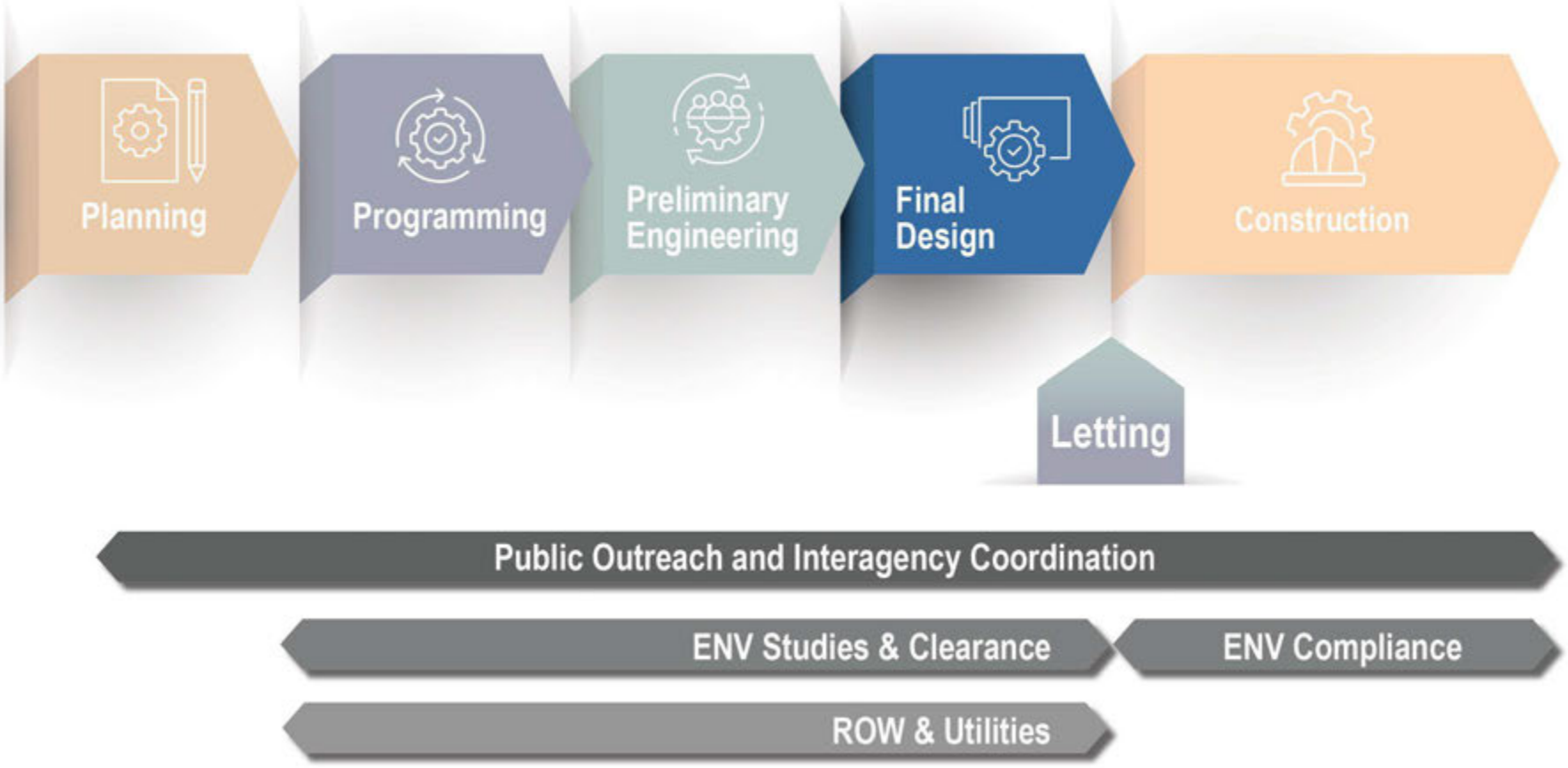


Figure 7-1: TxDOT's Project Development Process – Final Design

# What to know

- Design Concept Conference (DCC)
- Detailed design
- PS&E submission, review and approval

# Design Concept Conferences
# Section 7.2

- The DCC is especially useful for projects that:
  - Have different design teams involved in the preliminary engineering and final design phases of project development; and
  - Experienced a delay between the end of the preliminary engineering phase and the start of the final design phase.
- Review project scope
- Determine need for additional data to be collected
- Review of preliminary engineering and environmental documentation
- Review risk register (if applicable)

# Detailed Design
# Section 7.3

| | | |
|---|---|---|
| TCP | Roadway | Retaining/Sound Walls |
| Bridges | Drainage | Operations |
| Railroad | Environmental | Miscellaneous Design |

# PS&E Submission, Review, and Processing Section 7.13

- Proprietary/sole source product procurement and approval:
  - Submit request with details to the applicable Engineering Division with justification if no alternative is available.
  - Compatibility needs due to: Function, Aesthetics, Logistics, and/or Safety.
- Districts must conduct a final agreement and permit review before submitting RTL plans to division.
- AFA funds must be received by TxDOT no later than 5 days before bid opening for a contract to let.

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# Letting

Navigate to Chapter 8

# Letting

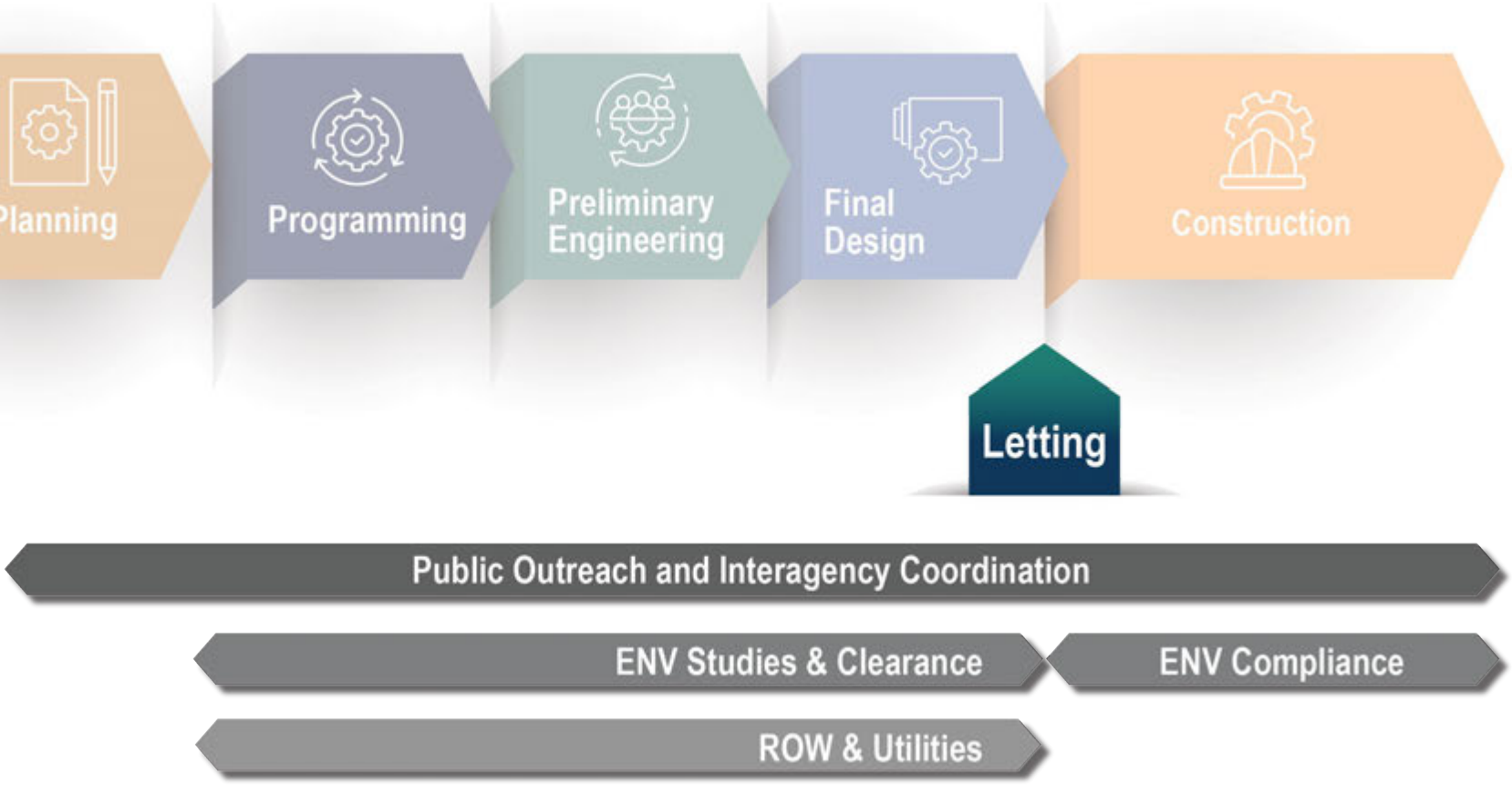


Figure 8-1: TxDOT's Project Development Process - Letting

# Pre-Letting
# Section 8.2

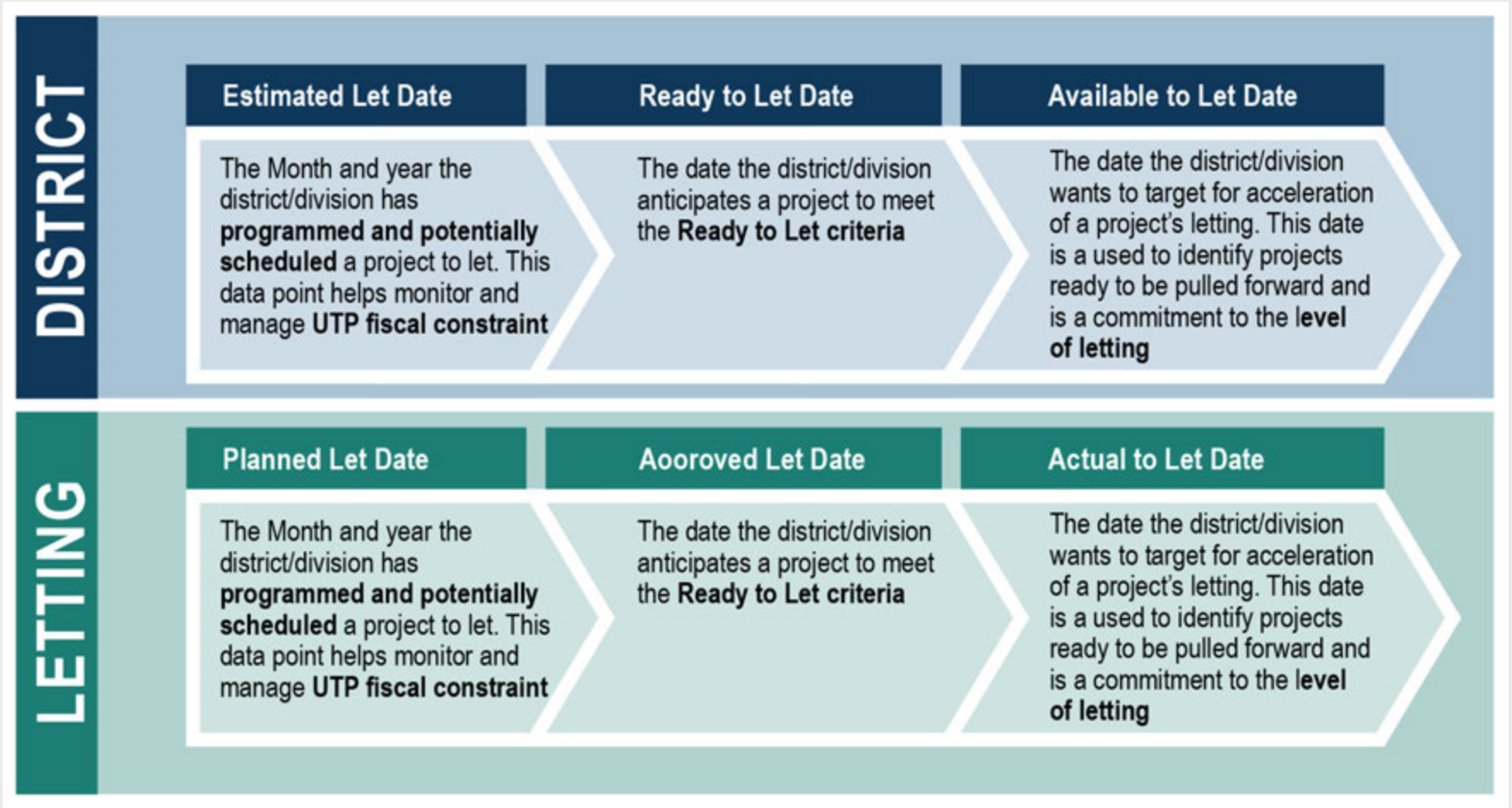


Figure 8-2: Let Date Definitions

# Letting
# Section 8.3

- The following conditions of bid acceptance must be reviewed at the opening of each bid:
  - Mandatory pre-bid conference attendance (if required)
  - Proposal Addenda Acknowledgment page “checked”
  - Proper presentation of bids
  - Proposal guaranty check; and
  - Signatures are complete.

# Post-Letting
# Section 8.4

- Bid Tabulation and Review
- Contract Award
- Project Financial Clearance Analysis

More information can be found in CST manuals and guidance.

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# Appendices

Navigate to Appendices

# Appendix A

- Authority Documents
  - Agreements
  - Texas Administrative Code
  - Government Code
  - Code of Federal Regulations
  - U.S. Code
  - Texas Transportation Code
  - Other

## Appendix A Authority Documentation

| PDP Section # | Authority Document | Description |
|---|---|---|
| 1.4 | Stewardship and Oversight Agreement | S&O agreement between TxDOT and FHWA |
| 1.4.1 | 43 TAC §15.52 | Federal state and local participation agreements |
| 1.4.1 | Texas Local Government Code | Texas law related to Local Public Agencies (LPA) |
| 1.7 | 13 TAC §6.1 et seq. | Records retention scheduling |
| 1.7 | Government Code §441.1855 | Retention of contracts and related documents by state agencies |
| 1.7 | Government Code Subchapter L | Preservation and management of state records and other historical |
| 2.2 | 23 CFR Part 450 | Statewide and metropolitan planning and programming definitions |
| 2.4 | 43 TAC §11.100 et seq. | Green Ribbon projects |
| 2.6.1 | 43 TAC §16.101 et seq. | Transportation programs (STIP, TIP, UTP, etc.) |
| 2.6.2 | EPA: Federal regulation and enforcement | Air quality |
| 3.3.1.3 | 23 USC §217(g)(1) | Bike and pedestrian accommodations |
| 3.3.1.3 | 36 CFR Chapter XI | Pedestrian -Architectural and Transportation Barriers Compliance Board |
| 3.3.1.5 | TTC Chapter 223, Subchapter A | Design-bid-build authority |

# Appendix B

- Resource Links
  - Manuals
  - Guides
  - AASHTO
  - TxDOT
  - FHWA
  - Other

## Appendix B Resource Links

A Guide for Sequencing and Placement of Noise Walls and Retaining Walls on TxDOT Projects

AAHSTO's Defining the Purpose and Need and Determining the Range of Alternatives for Transportation Projects

AASHTO A Policy on Design Standards – Interstate System

AASHTO A Policy on Geometric Design of Highways and Streets

AASHTO Guide for High Occupancy Vehicle Facilities

AASHTO Guide for the Development of Bicycle Facilities

AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities

AASHTO Highway Safety Manual

AASHTO's LRFD Guide Specifications for the Design of Pedestrian Bridges

AASHTO Practical Guide to Cost Estimating

AASHTO Roadside Design Guide

AASHTO Roadway Lighting Design Guide

Access Management Manual

Addendum Standard Operating Procedure (SOP) (TxDOT intranet only)

# Appendix C

- Tools Links
  - Forms
  - Checklists
  - Spreadsheets
  - Templates
  - Other

## Appendix C Tools Links

ADA/TAS Design Variance Form (TxDOT Intranet only)

Atlas 14 rainfall intensity tools

CCEG spreadsheet tool

Certifications for Utilities, ROW, and Railroads

Construction Cost Estimate Assistance Tool

Corridor Planning Tools (TxDOT intranet only)

DES-FPP 100% PS&E Submittal checklist

DES-FPP Final PS&E Processing checklist

Design Deviation form (TxDOT intranet only)

Design Exceptions form (TxDOT Intranet only)

District and DES specific H&H spreadsheets to document calculations (TxDOT intranet only)

Drainage Report template (TxDOT intranet only)

Form 1002 – PS&E Transmittal Data

Form 1204 – Request for Regulatory Construction Speed Zone

Form 2044 - Multiple Use Agreement

Form 2044-FED - Multiple Use Agreement

# Appendix D

- Acronyms

## Appendix D Acronyms

- **AAA** – Airport Airspace Analysis
- **AADT** – annual average daily traffic
- **AASHTO** – American Association of State Highway and Transportation Officials
- **ACP** – asphalt concrete pavement
- **ACT** – Antiquities Code of Texas
- **ADA** – Americans with Disabilities Act
- **ADT** – Average Daily Traffic
- **AEP** – annual exceedance probability
- **AFA** – advance funding agreement
- **AGL** – above ground level
- **ALD** – Alternative Delivery Division
- **AMM** – Access Management Manual
- **AOTS** – advanced outfall tracking system
- **APD** – advance planning and development
- **ATC** – Alternative Technical Concepts
- **BMP** – best management practices
- **BRG** – Bridge Division
- **C&M** – construction & maintenance
- **CAD** – computer-aided design
- **CANDPA** – Candidate PLAN Authority
- **CCAM** – Construction Contract Administration Manual
- **CCEG** – Construction Cost Estimating Guidance

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# Wrap-Up

# TxDOT's Project Development Process

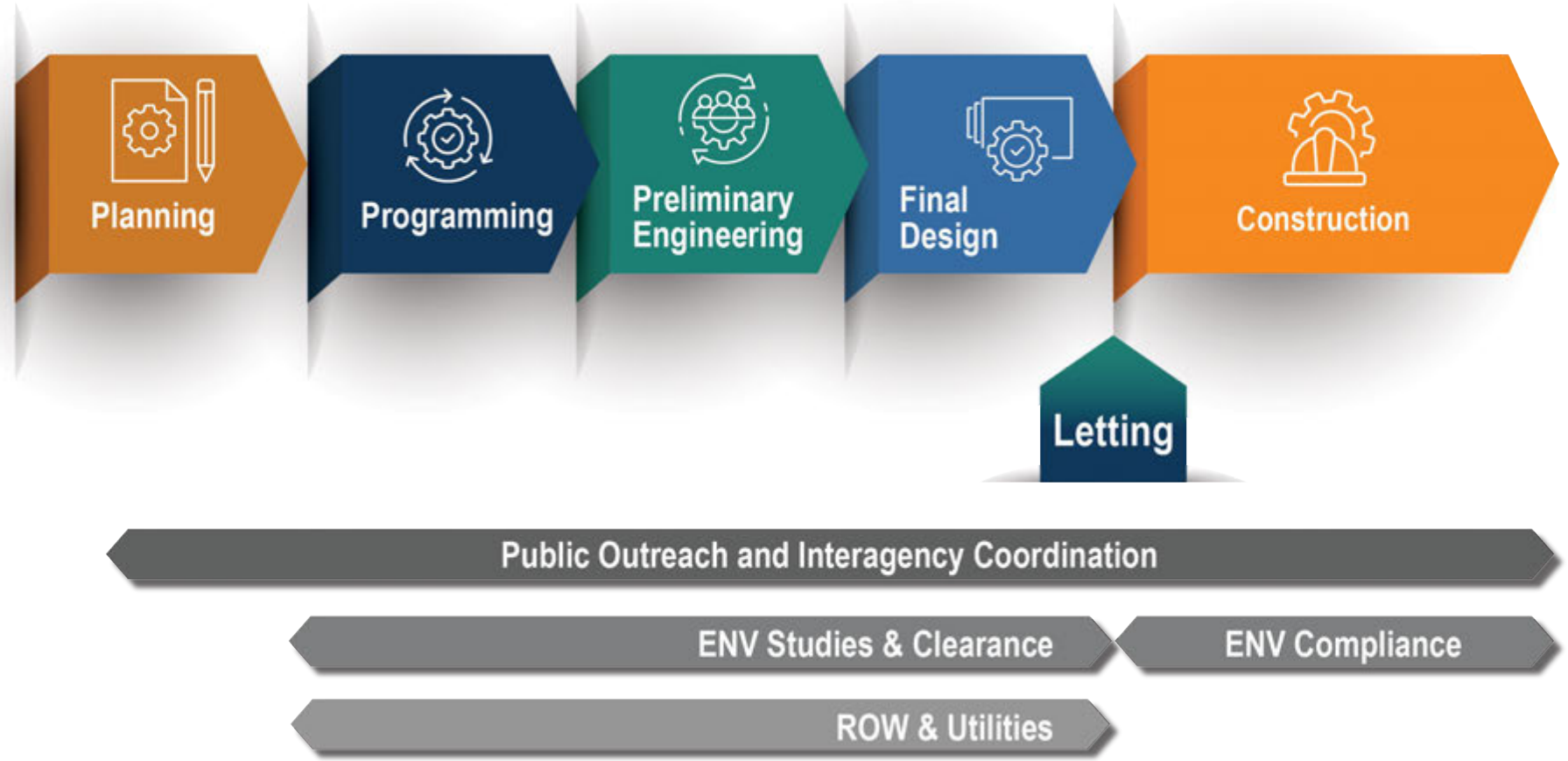


Figure 1-1: TxDOT's Project Development Process

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# Questions?

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# Thank you!