



Local Government Project Management Guide

Local Government Programs Section, Transportation Programs Division

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1 Introduction

1.1 Purpose of Manual and Guide

The [Local Government Projects Policy Manual](#) and this companion Local Government Project Management Guide provide guidance for local governments developing transportation projects under the oversight of the Texas Department of Transportation (TxDOT). The term “local government” (LG) includes municipalities, counties, county and regional toll authorities, regional mobility authorities (RMAs), metropolitan planning organizations (MPOs) and private entities in certain situations. These procedures address both state of Texas requirements and federal requirements administered through the Federal Highway Administration; however, they do not address public transportation, aviation or concessionaire projects.

1.2 Local Government Programs Section

The Texas Department of Transportation (TxDOT) defines a local government project as a *transportation project in which at least one phase of project development is managed by a local government (LG) agency for which it is being reimbursed with federal or state funding. It may also include a locally funded project managed by an LG on the state highway system.* The TxDOT [Local Government Programs Section](#) (LGP) is located in Austin and provides guidance and training for LG and TxDOT personnel in the development of transportation projects under TxDOT oversight. LGP develops policies and procedures, provides guidance to TxDOT districts, and maintains documents, resources and training tools for LGs, consultants and TxDOT staff.

LGP is part of the larger TxDOT organization, which has the following components.

- [District offices](#) are the initial and primary contacts for LGs and provide oversight for LG projects. Area offices (under the district office) may support the district office during different stages of the project.
- TxDOT [divisions](#) support and provide subject-matter expertise to the districts in each area of project development. Occasionally, a division may provide the direct project oversight on a LG project.
- [Administration](#), including the executive director and other executive offices, provides direction and oversight to all of the districts, divisions and offices.

1.3 Local Government Projects Tools

TxDOT's Local Government Programs Section (LGP) has developed a series of reference documents and training materials to assist local governments (LGs) and TxDOT staff during the development and management of LG transportation projects. The purpose of these tools is to maximize LG and TxDOT compliance with federal and state laws, rules and regulations to ensure public funds are properly expended and to allow LGs to receive full reimbursement on eligible and allowable project costs. All of the documents referenced below are available on the [Local Government Project Toolkit Web page](#).

1.3.1 Local Government Projects Policy Manual

The [Local Government Projects Policy Manual](#) (LGPP Manual or Manual) provides information on federal and state laws and regulations relevant to each step in the development of a LG project. These regulations, together with manuals and other guidance documents adopted by the [Federal Highway Administration](#) (FHWA), TxDOT and other agencies establish the policies that must be followed by the LG and TxDOT during administration of the project.

1.3.2 Local Government Project Management Guide

The Local Government Project Management Guide (LGPM Guide or Guide) provides project management guidance for a LG administering a LG transportation project and for TxDOT staff who are providing oversight. The Guide contains the processes and procedures to be used by the LG and TxDOT to successfully accomplish all phases of a transportation project from Project Initiation to Project Close-out. These procedures include required practices, local responsibilities and TxDOT responsibilities with respect to both state and federal requirements.

1.3.3 Local Government Projects Best Practices Workbook

The Local Government Projects [Best Practices Workbook](#) (Workbook) is intended to serve as a quick reference tool and workbook to assist TxDOT division, district and area offices and the LG with the administration of LG projects. TxDOT and LG project managers and others working directly on the project are strongly encouraged to use the Workbook to monitor progress on the project and as a project record of activities as they are completed. The Workbook does not address all legal requirements nor does it replace any of the instructions, manuals or guidance documents referenced in LGPP Manual, LGPM Guide, project documents, federal and state laws and regulations, or training materials.

1.3.4 Local Government Project Online Toolkit

LGP has developed a series of user-friendly Web pages and an online [Local Government Project Toolkit](#) (Toolkit). The Toolkit presents information in a format mirroring the project development process presented in the Manual and Guide. The Toolkit provides users with an easy-access portal to find and download many useful forms of information, including:

- state and federal regulations;
- LGPP Manual;
- LGPM Guide;
- Workbook;

- TxDOT and external websites;
- TxDOT and external online manuals;
- contract execution and administration forms; and,
- other useful information.

1.3.5 Training

LGP provides training courses to allow LG officials, staff and contractors, as well as TxDOT division, district and area office staff, to receive hands-on instruction. These courses are required for key project personnel and are offered throughout the state on a regular basis throughout the year.

Each local government with a transportation project must assign a “qualified person” to the project (see [Chapter 2](#) of this Manual). This person must work actively and directly on the project and have successfully completed training as defined in the advance funding agreement. The requirements for certification as a “qualified person” and a current schedule for the LGP training courses are found on the [Local Government Project Procedures Training and Qualification web page](#).

1.4 Organization of Manual and Guide

Both the Manual and the Guide are organized by chapters reflecting the steps occurring during project development. Each chapter contains a brief introduction and includes links to many different manuals and other information supporting that chapter. Each chapter is intended to be independent and has a format that is reflective of the materials covered.

The Manual and Guide are organized according to the sequential steps in project development as shown in the flowchart diagram below:

Project Development Process Flowchart



- *Project Initiation* – project planning, programming, advanced funding agreements, state letter of authority and contracting with TxDOT;
- *Non-construction Projects* – transportation-related projects or programs not involving the building of infrastructure;
- *Preliminary Engineering and Design* – procurement of professional services, project design through 30% completion;
- *Environmental Compliance* – environmental policies, practices, requirements and compliance;
- *Right of Way and Utilities* – real property acquisition, utility relocation and utility service to and through projects;
- *Plans, Specifications & Estimates (PS&E) Development* – development of engineering specifications and plans and bid document preparation;
- *Letting and Award* – advertising, bidding and awarding a construction contract;

- Construction – building phase of LG projects in compliance with PS&E requirements; and
- Project Close-Out and Maintenance – financial close-out and document retention, audit and maintenance.

1.5 Acronyms

<u>Acronym</u>	<u>Definition</u>
AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
ADAAG	Americans with Disabilities Act – Accessibility Guidelines for Buildings and Facilities
AFA	Advance funding agreement
AIA	American Institute of Architects
BRG	Texas Department of Transportation’s Bridge Division
CAA	Clean Air Act
CCR	Central Contractor Registration
CE	Categorical exclusion
CIA	Community impact analysis
CIV	Texas Department of Transportation’s Civil Rights Division
CFR	Code of Federal Regulation
CMAQ	Congestion mitigation and air quality
CMMA	Comprehensive maintenance management agreement
CSD	Texas Department of Transportation’s Contract Services Division
CSJ	Control-section-job
CST	Texas Department of Transportation’s Construction Division
DBE	Disadvantaged Business Enterprise
DES	Texas Department of Transportation’s Design Division
DOT	Department of Transportation (United States)
DSR	Design summary report
DUNS	Data Universal Numbering System
EA	Environmental assessment
EDC	Economically disadvantaged county
EEO	Equal employment opportunity
EIS	Environmental impact statement
EJ	Environmental justice
ENV	Texas Department of Transportation’s Environmental Affairs Division
EPIC	Environmental permits, issues and commitments
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIN	Texas Department of Transportation’s Finance Division
FOH	Field Operations Handbook, U.S. Department of Labor
FPAA	Federal project authorization and agreement
FSP	Federal Railroad Signal Program
FTA	Federal Transit Administration
GSA	U.S. General Services Administration
HES	Hazard Elimination Program
HOV	High-occupancy vehicle
HOT	High-occupancy toll

<u>Acronym</u>	<u>Definition</u>
HRRR	High Risk Rural Roads Program
HSIP	Highway Safety Improvement Program
HUB	Historically underutilized business
IAJ	Interstate access justification report
ITS	Intelligent transportation system (Traffic Operations)
LG	Local government
LGP	Texas Department of Transportation's Local Government Programs Section
LGPM	Local Government Project Management Guide
LGPP	Local Government Projects Policy Manual
LOS	Level of service
LOSA	Local on system agreement
LPA	Local public agency
LPAFA	Local project advance funding agreement
LRFD	Load and resistance factor design
MAFA	Master advance funding agreement
MM	Metropolitan mobility
MNT	Texas Department of Transportation's Maintenance Division
MOU	Memorandum of understanding
MPO	Metropolitan planning organization
MS4	Municipal Separate Storm Sewer System
MTD	Texas Department of Transportation's Materials and Tests Division
MTP	Metropolitan Transportation Plan
NAGPRA	Native American Graves Protection and Repatriation Act
NCAFA	Advance funding agreement for non-construction projects
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NTP	Notice to proceed
OFCCP	Office of Federal Contract Compliance Programs
OL	Oversight level
OPR	Office of primary responsibility
ORS	Overall risk score
OSHA	Occupational Safety and Health Administration
PEPS	Texas Department of Transportation's Professional Engineering Procurement Services
PM	Project manager
PoDI	Projects of division interest (Federal Highway Administration)
PROWAG	Public Right-of-Way Accessibility Guidelines
PS&E	Plans, specifications and estimates
QAP	Quality assurance program
RA	Risk assessment
RAS	Registered accessibility specialist
RFP	Request for proposals (design-build)
RFQ	Request for qualifications (design-bid-build and design-build)

<u>Acronym</u>	<u>Definition</u>
RMA	Regional mobility authority
ROW	Right of way and Texas Department of Transportation's Right of Way Division
RPIC	Responsible person in charge
RPO	Rural planning organization
SBE	Small business enterprise
SHS	State highway system
SIP	State Implementation Plan
SLOA	State letter of authority
SMEPC	Structural, mechanical, electrical, plumbing and civil
SOC	Statement of costs
STIP	Statewide Transportation Improvement Program
SW3P	Storm water pollution prevention plan
TAC	Texas Administrative Code
TAS	Texas Accessibility Standards
TCEQ	Texas Commission on Environmental Quality
TCP	Traffic control plan
TDLR	Texas Department of Licensing and Regulation
THC	Texas Historical Commission
TIGER	Transportation Investment Generating Economic Recovery
TIP	Transportation Improvement Program
TMP	Transportation management plan
TMUTCD	Texas Manual on Uniform Traffic Control Devices
TPDES	Texas Pollutant Discharge Elimination System
TPD	Texas Department of Transportation's Transportation Programs Division
TPP	Texas Department of Transportation's Transportation Planning and Programming
TPWD	Texas Parks and Wildlife Department
TRB	Transportation Research Board
TRF	Texas Department of Transportation's Traffic Safety Division
TxDOT	Texas Department of Transportation
UGMS	Uniform Grant Management Standards
USACE	U.S. Army Corps of Engineers
USDOL	U.S. Department of Labor
USDOT	U.S. Department of Transportation
USIBWC	U.S. International Boundary and Water Commission
UTP	Texas Department of Transportation's Unified Transportation Program
VE	Value engineering

2 Project Initiation

2.1 Introduction

Within the [Local Government Projects Policy Manual](#) (LGPP Manual) and the Local Government Project Management Guide (LGPM Guide), transportation projects are grouped in two general types of projects: construction and non-construction. Construction projects involve roads, highways, bridges, building facilities and alternative transportation projects such as pedestrian and bicycle facilities, environmental mitigation, recreational trails, safe-routes-to-school programs and other projects involving constructed infrastructure. Non-construction projects include planning studies, development of travel demand models, management of a “shared ride” service, “motorist assistance” programs, transportation corridor analyses and other similar projects not involving construction activities. The Manual and Guide are organized to reflect the processes used by engineers, planners and managers to develop these projects, and each follows nine phases, beginning with Project Initiation and ending with Project Close-out and Maintenance.

Although the phases are listed in an order somewhat reflective of the timeline followed during project development, several of the phases may be performed concurrently, such as Preliminary Engineering and Design, Environmental Compliance, and Right of Way and Utilities. Many phases may relate to both non-construction and construction projects (Project Initiation, Preliminary Engineering and Design, Environmental Compliance and Project Close-out) while others may be specific to either construction or non-construction (see chapters of the same name). Each phase is discussed in more detail in the specific chapters, and users should review [Chapter 1](#) to get an overview of the tools available.

The first phase in any construction or non-construction project is Project Initiation. This phase of the project includes all of the steps between project identification and the execution of the legal agreement between the local government (LG) and the state, represented in this case by the Texas Department of Transportation (TxDOT). By reference in this document, the term transportation project, project or LG project may involve either a construction or non-construction project or program. Later chapters define the types of transportation projects in more detail.

The identification of a transportation project by a LG will involve the definition of the project objectives, the public service objectives, the degree of involvement by the state and federal partners, the ability of and commitment by the LG to manage the project and additional key decision-making elements. The LG may work with regional transportation agencies, the TxDOT district or area office, a TxDOT division, local stakeholders and others during this process. Once a decision is made to pursue a project, the partnership with TxDOT must be defined and the project moves into the Planning and Programming phase. Eventually the Project Initiation phase will end with the development and execution of an advance funding agreement (AFA) between the LG and TxDOT.

The details of this first phase will vary greatly based on the type of project; however, this chapter of the Guide provides an overview of the procedures used during project selection, development of the AFA, obtaining authorization and project management.

2.2 Local Government Projects Overview

2.2.1 Local Government Use of the LGPM Guide

As described in more detail in the [LGPP Manual](#) and in [Chapter 1 - Introduction](#) of the Guide, a LG will manage at least one aspect of the transportation project under the oversight of TxDOT. A LG should adopt and use the contracting procedures found in the Guide in order to comply with the state and federal laws, rules and policies described in the LGPP Manual. The Guide provides direction related to LG project administration and management activities during project initiation, preliminary design, bid document preparation, letting and award, contract execution, contract administration and other aspects of a construction or non-construction transportation project.

2.2.2 Federal Funding Requirements for LG Projects

The LGPP Manual and the LGPM Guide apply to projects involving both state (TxDOT) and federal (Federal Highway Administration) funds. Federal regulations apply to all federally funded projects and are referenced throughout the LGPP Manual. Title 23 CFR (Highways) is the primary regulatory reference; however, other titles have applicability, such as Title 49 CFR (Transportation) and Title 29 CFR (Labor). [Federal Highway Administration \(FHWA\) regulations](#) can be found on its website. A LG should reference the policies described in the [LGPP Manual](#) for any questions regarding applicable regulations.

In accordance with Title 49 CFR Part 26, TxDOT's Disadvantaged Business Enterprise (DBE) program includes the adoption of TxDOT's DBE plan and is monitored by TxDOT's Civil Rights Division. The importance of Title 49 CFR and adoption TxDOT's DBE program in the implementation of LG projects cannot be over-stated. It is an important commitment made by every LG and any LG contractors and consultants participating in the LG program. As stated in Title 49 CFR, prescribed under 26.13(b) contracts that TxDOT (and, by adoption of TxDOT's DBE program, the LG) executes with a sub-recipient (including contractors and consultants) must have physically incorporated in it the standardized assurance statement which states that: 1) these parties will not discriminate based on race, color, national origin or sex in the performance of any FHWA-assisted contract; 2) the contractor shall carry out the requirements of 49 CFR 26 in the award and administration of FHWA-assisted contracts; and 3) failure by the contractor to carry out these requirements is a material breach of contract, which may result in contract termination or other remedy as deemed appropriate by the recipient. TxDOT's Civil Rights Division is established to provide assistance, resources and monitor activities for DBE. LG's can refer to the [Local Government DBE Program Compliance and Monitoring Guide](#) for further information regarding important goals and requirements.

2.2.3 General Contracting Requirements for LG Projects

In order for federal or state funds to be spent on a transportation project in partnership with a LG, a written contract must first be executed between TxDOT and the LG. An advance funding agreement (AFA) is the form of contract most frequently used for development of projects with LGs. The AFA specifies whether the LG or TxDOT is performing each stage of the work for the project or program and is described in [Section 4](#) of this chapter.

The Guide provides information on a wide variety of project delivery methods available to TxDOT and LGs. This document provides information related to TxDOT district and division

responsibilities associated with the administration and oversight of highway improvement contracts and related transportation projects let or administered by the LG as well as non-construction projects and programs. Related regulations and policies are included in the [LGPP Manual](#).

2.2.4 LG Project Oversight

For all activities performed by the LG, TxDOT maintains an oversight responsibility. TxDOT's district offices represent the primary point of contact for the LG throughout the project development process, although various divisions provide oversight for some projects. TxDOT's goal is to allow a LG the flexibility to effectively administer a project while efficiently and effectively utilizing TxDOT resources. However, TxDOT has a stewardship responsibility for all LG projects involving federal or state funds or impacting the state highway system (SHS). The degree to which TxDOT monitors these projects depends primarily on a combination of funding source, highway system, statutory requirements, demonstrated competence of the LG personnel and resources, and the potential risk posed by non-compliance. TxDOT will tailor the level of monitoring to the relative potential risk to TxDOT (see Chapter 2 of the [LGPP Manual](#)).

As stated in federal law, federal regulations and state regulations, prior to authorizing the LG to perform any element of the project development process, TxDOT has a responsibility to determine if each LG is qualified and has adequate resources and controls to perform the project work.

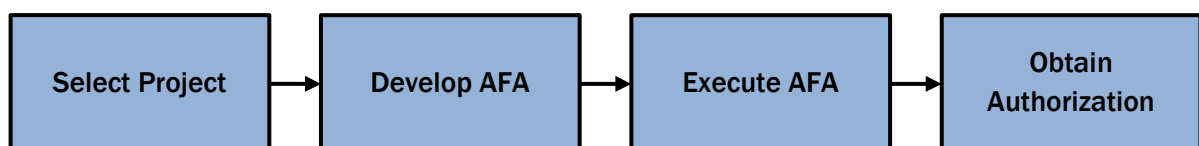
The LG Agency Risk Assessment (RA) is completed by the district or division managing a project in coordination with TxDOT's Local Government Programs (LGP) section by assigning an overall risk score (ORS) rating (A, B, C or D) for the LG. LGP maintains a centralized database for LG risk assessment program data, supports the districts and divisions, and monitors requirements for periodic updates of RAs based on the established ORS. The district or division determines appropriate communication with the LG regarding the ORS.

Additional oversight is established when a new LG project is identified, and the "Oversight Level Special Approval, Part A and Part B" form is completed. Further discussion of this document can be found in [Section 4](#) of this chapter.

The requirement for TxDOT review and approval is referenced in many areas throughout this LGPM Guide. If no specific office is referenced, the appropriate TxDOT district office should be contacted for coordination of TxDOT approval.

2.2.5 Project Initiation Phase Flowchart

Chapter 2 includes the procedures associated with the Project Initiation phase of the project. The flowchart below shows the typical high-level tasks completed by the LG, TxDOT and FHWA during the Project Initiation phase of the project.



The high-level tasks in the flowchart may be broken down into general steps:

- select the project in coordination between TxDOT, LG and a metropolitan planning organization (MPO);
- verify the project is included in the [Statewide Transportation Improvement Program \(STIP\)](#) or the [Unified Transportation Plan \(UTP\)](#);
- obtain approval by the Texas Transportation Commission for projects not in the STIP or UTP;
- facilitate initial project coordination;
- complete appropriate forms, including district completion of the RA, if needed, and LG and district completion of the “Oversight Level Special Approval form, Parts A & B” form;
- prepare and execute an AFA;
- execute the federal project authorization and agreement (FPAA) and state letter of authority (SLOA); and
- submit advance payment to TxDOT for direct state costs.

The first three steps are grouped into the “Select Project” task on the flowchart above and are described in the [Planning and Programming](#) section of this chapter. The remaining steps correspond to the tasks required to develop and execute the contractual relationship between the LG and TxDOT as described in the remaining sections of this chapter. The required practices and specific responsibilities of the LG and TxDOT associated with these steps are provided in this Guide, while the laws and policies associated with Project Initiation are included in the [LGPP Manual](#). A workflow of the Project Initiation phase is presented in more detail in the [LG Project Process Development Flowchart](#).

2.3 Planning and Programming

2.3.1 Overview

Planning and Programming involves the identification of the project objectives and the development of a statement of work that identifies the project or program priorities and activities to be performed by the project partners. This phase corresponds to the “Select Project” task on the simplified Project Initiation Phase flowchart shown in the previous section. The process, as shown in the more-detailed flowchart below, will include, at a minimum, the description of the project or program, the responsible organizations performing the work, the time frames for completing the work, the costs of the work and the sources of funding, and obtaining the appropriate approvals. The following elements are critical to selecting the project and moving toward the execution of the AFA described in the next section.



2.3.2 Local Government and TxDOT Staff

2.3.2.1 Local Government

The LG must demonstrate to TxDOT that it has adequate staff to manage all project functions. The LG staff should be experienced in managing similar types of projects or programs and have a general knowledge of standard procedures for managing consultants, contractors and other vendors as required by the project.

2.3.2.2 District

Each TxDOT district has a planning and programming section that studies and plans for the needs of the district’s highway system. LGs should work with the TxDOT district staff to identify and prioritize funding for projects. After prioritizing local needs in the context of available funding, the district staff updates and coordinates project planning and programming with the Transportation Planning and Programming (TPP) and the Financial Management (FIN) divisions in Austin.

2.3.2.3 Division

TPP integrates the district’s plans into TxDOT’s [Unified Transportation Program](#) (UTP). TxDOT’s project selection process involves an annual public meeting, hearing and amendment process for the UTP. TPP is also called upon to provide special reports and analysis for the Texas Transportation Commission, the senior management team, TxDOT districts, FHWA, LGs and private parties. The UTP is approved and implemented under a minute order from the Texas Transportation Commission. This minute order specifies the amount of funding to be provided by TxDOT for many programs, including LG projects and state projects. An approved minute order and an executed contract in the form of an AFA are necessary before the LG can be authorized to begin work on each project or program. The

project must be included in the [Statewide Transportation Improvement Program](#) (STIP) before receiving a SLOA.

2.3.3 Initial Project Coordination

The appropriate TxDOT district personnel will contact the LG to discuss the project details (and an inspection of the proposed project site, when applicable). It is recommended that initial project coordination occur as soon as possible after the project is selected for funding. Topics of discussion can include the following items (as applicable):

- scope of the project and desired outcome;
- project management;
- discussion of the AFA terms and other relevant required forms such as the Oversight Level Special Approval form;
- project budget and financial information;
- funding sources;
- use and selection of consultant(s);
- environmental process and documentation;
- property and right-of-way acquisition and requirements;
- utility adjustments;
- design criteria and processes;
- plans, specifications and estimates (PS&E) preparation;
- accelerated construction strategies;
- letting schedule;
- construction criteria and processes;
- requirements for design authorization; and
- document retention requirements.

2.3.4 Coordination with a Metropolitan Planning Organization

2.3.4.1 General

In urban areas, a MPO may act as the LG for a transportation project. In other instances, the MPO may award the project funding to another LG (city, county, etc.) within the MPO's planning area. A MPO is a federally mandated, policy-making organization that is made up of

representatives from LGs as well as other governmental transportation authorities. The Federal-Aid Highway Act of 1962 requires the formation of a MPO for any urbanized area with a population greater than 50,000. The MPO is the forum for a continuing, cooperative and comprehensive planning process for the metropolitan region. The federal and state regulations related to MPOs are described in the [LGPP Manual](#).

2.3.4.2 Required Practices

- In general, state and federally funded projects in metropolitan areas are selected through the metropolitan planning process. Any LG anticipating using state or federal funds for a transportation project must coordinate with TxDOT and the MPO by furnishing information they request to assure the project is included in the Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP).
- All projects on the state or federal highway system as well as any projects deemed regionally significant must be included in the approved MTP regardless of funding source to maintain the integrity of the planning process.

2.3.4.3 LG Responsibilities

- Generally, the LG should provide information to the MPO for projects within the MPO boundaries with state and federal funds, or on the state highway system regardless of funding source, to assure the project is in the MTP (if applicable).
- If work on the project is proposed to be performed by the LG's own employees or an extension of its workforce (force account labor/work), the LG must prepare and submit to TxDOT a Cost Effectiveness Determination Letter (i.e. the LG must demonstrate that a competitive bid process is not required for the work). Force account work must be done in compliance with [23 CFR 635-Subpart B](#).

2.3.4.4 TxDOT District Responsibilities

- The district will serve as a resource to and, when appropriate, a liaison between the LG and MPO, providing technical assistance as required. The district may contact TPP for guidance and assistance as necessary.
- The district must review the Cost Effectiveness Determination Letter relating to any force account work by the LG, obtain approval and provide the written approval of the TxDOT executive director or his designee to the LG prior the LG initiating force account work on the project.

2.3.5 Functional Classification

2.3.5.1 General

Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide. The process classifies roadways according to traffic flow from the movement function to the

access function. One extreme is the fully access controlled freeway that provides no local access function, and the other extreme is a cul-de-sac that provides no through movement function. Functional classification is used for a variety of situations, such as determination of design criteria and storm frequency for hydraulic design. MPOs and LGs should confirm the functional classification of a roadway early in the planning process. The [LGPP Manual](#) provides the regulations governing the use of functional classification.

2.3.5.2 Required Practices

- TxDOT's TPP has the primary responsibility for implementing functional classification for TxDOT and works with the MPOs and districts during the process. The MPO is responsible for coordination with local elected officials and other entities.
- For all projects with state or federal funds and all projects on the state highway system, the LG must use functional classification maps developed by TxDOT (available as part of the [Statewide Planning Map](#)) for all matters concerning functional classification, such as selection of design criteria and funding eligibility.
- For projects off the state highway system with no state or federal funds, the LG is encouraged to apply the TxDOT functional classification system as appropriate.

2.3.5.3 LG Responsibilities

For projects with state or federal funds, or on the state highway system regardless of funding source, the LG must:

- use TxDOT functional classification maps for all matters concerning functional classification; and
- direct questions and issues to the TxDOT district office.

For projects off the state highway system and utilizing no state or federal funds, the LG should consider using TxDOT functional classification maps as appropriate.

2.3.5.4 TxDOT District Responsibilities

- The district will serve as the primary contact with the LG and may answer questions concerning application of functional classification. The district may contact TPP for assistance as necessary.

2.3.6 Minute Order

2.3.6.1 General

A minute order is a formal expression of opinion, direction or intent approved by the Texas Transportation Commission to authorize actions by TxDOT. Minute orders are required for several actions involving project administration by the LG, including, but not limited to, access control, new route designation and donations.

2.3.6.2 Required Practices

- For all projects on the state highway system, the LG must have TxDOT approval of:
 - requests for designation of an access control facility; and
 - designation of a new highway, highway change or highway deletion.
- For all projects with state or federal funds, the LG must have TxDOT approval of all donations to TxDOT, such as right of way and project development services.
- For projects requiring a new highway designation, change or deletion, the LG must provide a resolution in support of the project and highway change.
- For projects affecting the interstate and U.S. highway system, TxDOT must request concurrence from the American Association of State Highway and Transportation Officials for final route designation approval.

2.3.6.3 LG Responsibilities

- For projects with state or federal funds, or on the state highway system regardless of funding source, the LG must request Texas Transportation Commission approval of minute orders as appropriate.

2.3.6.4 TxDOT District Responsibilities

- For projects with state or federal funds, or on the state highway system regardless of funding source, the district:
 - serves as the primary contact to the LG on all matters requiring approval of minute orders; and
 - furnishes information to the responsible TxDOT division for use in preparing minute orders.

2.3.7 Traffic Data

2.3.7.1 General

Traffic data is used in a variety of project development situations, such as selection of design criteria and pavement design. For the purpose of this chapter, “traffic data” is defined as whatever data is required to complete the associated design activity. TxDOT’s [Transportation Planning and Programming Manual](#) provides information related to traffic data and requires TxDOT to maintain a single source of all traffic data reported to the commission, Legislature, governor and the public. The federal and state regulations related to traffic data are contained in the [LGPP Manual](#).

2.3.7.2 Required Practices

- For all projects with state or federal funds on the state highway system, the LG must use traffic data furnished by TxDOT in the selection of applicable design criteria.
- For projects with state or federal funds off the state highway system, the LG may request traffic data from TxDOT, if available, or must submit written justification to use non-TxDOT-furnished traffic data for TxDOT approval, listing such information as data source, data collection methodology and experience with this data.
- For projects off the state highway system with no state or federal funds, the LG may use traffic data from the source of its choice or request traffic data from TxDOT if available.

2.3.7.3 LG Responsibilities

- For all projects with state or federal funds, or on the state highway system regardless of funding source, the LG must:
 - request traffic data from TxDOT for the design year based on the scope of work;
 - request TxDOT review and approval of traffic data other than as provided by TxDOT, if desired; and
 - request updated traffic data for changes in the design year.
- For projects off the state highway system with no state or federal funds, the LG should use traffic data as desired by the LG or request available traffic data from TxDOT.

2.3.7.4 TxDOT District Responsibilities

- For all projects with state or federal funds and all projects on the state highway system, the district must:
 - submit LG requests for traffic data to TPP;
 - submit LG justification to use traffic data from other sources to TPP for review and approval; and
 - Assure the traffic data requested is for the appropriate design year and scope of work.

2.3.8 Unified Transportation Program

2.3.8.1 General

The [Unified Transportation Program](#) (UTP) is the 10-year planning document that guides and controls project development for TxDOT in a feasible and economical manner. The UTP is an intermediate programming document linking the planning activities of the [Texas Transportation Plan](#) (TTP), MTP and Rural Transportation Plan to the detailed programming

activities under the [Statewide Transportation Improvement Program](#) (STIP) and TxDOT's 24-month (2-year) letting schedule. Specifically, the UTP is a listing of projects and programs planning to be constructed or developed within the first 10 years of the 24-year TTP. Project development includes activities such as preliminary engineering work, environmental analysis, right-of-way acquisition and design. The regulations related to the UTP are described in the [LGPP Manual](#).

2.3.8.2 Required Practices

- All projects with state or federal funds must be in the current version of the UTP for TxDOT to authorize the LG to proceed. The proposed scope of work must be in the appropriate level of authority. A project-specific minute order must be approved by TxDOT. The [UTP](#) is available on TxDOT's website.
- Projects with no state or federal funds do not have to be listed in the UTP. This includes projects on the state highway system.

2.3.8.3 LG Responsibilities

- For projects with state and federal funds, the LG must assure the scope of work is in the appropriate level of authority in the current UTP before requesting TxDOT approval to proceed with a phase of work.

2.3.8.4 TxDOT District Responsibilities

- For projects with state or federal funds, the district:
 - must assure the LG's request for funding is compatible with the appropriate level of authority in the current UTP before either approving the funding request or transmitting the funding request to the applicable approving authority;
 - must submit information to TPP for the preparation of project-specific minute orders; and
 - should serve as a resource for the LG in questions involving the planning process and the UTP. The district may contact TPP for assistance as needed.

2.3.9 State Comprehensive Planning Process

2.3.9.1 General

As a condition of receiving federal transportation funds, states are required to have a comprehensive planning process. The TTP, MTP, TIP and STIP are various documents developed during this planning process and are used to assure projects selected for implementation best balance identified needs within available federal resources. TxDOT is the state agency involved in transportation planning, while the two primary federal agencies are FHWA and the Federal Transit Administration (FTA). The [LGPP Manual](#) provides the associated federal and state regulations.

2.3.9.2 Required Practices

- In general, LG projects must be included in the TIP/STIP before federal funds can be authorized. Projects will be selected for funding using the procedures in the approved STIP.
- An amendment to the TIP/STIP is required for many reasons. If a project's scope, limits, the amount or percentage of proposed federal funding changes, these changes must be incorporated into the TIP/STIP. When changes in a project's estimated federal cost exceeds 50% and results in a revised total project cost exceeding \$1,499,000, an amendment to the TIP is required. Note that the 50% rule applies only to the federal-aid share of the project cost, while the greater than \$1,499,000 applies to the total cost of the project (including the increase due to the revision). A TIP revision is not required when a change in estimated federal cost results in a total project cost less than \$1,500,000. This requirement does not apply to an individual project in a "grouped" category. A "grouped" project is one that is smaller in scale and has been placed in a group of similar projects that may have been categorized by function, geographic area or work types in the TIP/STIP. In this case it would apply if the conditions outlined above are met for the entire group.
- All regionally significant projects must be included in the TIP/STIP before TxDOT will approve the project. According to the [Online Manual Glossary](#), a regionally significant project is a project (other than projects excluded by the cooperating parties from individual identification and grouped in the TIP/STIP) that is on a facility serving regional transportation needs. Needs such as access to and from the area outside of the region; major activity centers in the region; major planned developments such as new retail malls, sports complexes, etc.; or transportation terminals (as well as most terminals themselves) would normally be included in the modeling of a metropolitan area's transportation network. For additional information on TIP/STIP requirements in air quality non-attainment areas of the state, [contact TPP](#).
- Except for regionally significant projects, a non-federally funded project does not have to be included in the TIP/STIP.

2.3.9.3 LG Responsibilities

- For all projects with federal funds, the LG must:
 - coordinate with its TxDOT district or division point of contact and MPO;
 - assure the project is in the TIP/STIP before requesting funding authorization; and
 - request a TIP/STIP revision for any of the reasons mentioned in the second bullet of 2.3.9.2 above.
- For non-federally funded, "regionally significant" projects, the LG must assure the project is in the STIP before requesting project approval.

2.3.9.4 TxDOT District Responsibilities

- For federally funded projects and non-federally funded, “regionally significant” projects, the district must assure the project is included in the latest FHWA-approved TIP/STIP before submitting a request for authorization of federal funds.
- There is no monitoring for non-federally funded projects unless the project meets the definition of “regionally significant.”

2.3.10 Major Project Financial Plan and Project Management Plan Requirements**2.3.10.1 General**

A project with an estimated total cost equal to or greater than \$500 million and utilizes federal financial assistance, or one funded with a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan, is considered a “major project.” A LG developing a major project is required to submit to the U.S. Secretary of Transportation a project management plan and an annual financial plan, including a phasing plan when applicable.

For projects utilizing federal financial assistance and having an estimated total cost of \$100 million or more, but less than \$500 million, the LG is required to prepare an annual financial plan that must be made available to the U.S. Secretary of Transportation for review upon request by the secretary.

2.3.10.2 Required Practices

- For major projects, the LG must prepare and submit to the U.S. Secretary of Transportation:
 - a project management plan documenting:
 - the procedures and processes in effect to provide timely information to the project decision makers to effectively manage the scope, costs, schedules and quality of, and federal requirements applicable to, the project; and
 - the role of the LG leadership and management team in the delivery of the project;
 - an annual financial plan that:
 - shall be based on detailed estimates of the cost to complete the project;
 - provides for the annual submission of updates to the U.S. Secretary of Transportation based on reasonable assumptions of future increases in the cost to complete the project;
 - may include a phasing plan identifying fundable incremental improvements or phases addressing the purpose and need of the project in the short term in the event there are insufficient financial resources to complete the entire project; and

- shall assess the appropriateness of a public-private partnership to deliver the project.
- For federally funded projects with an estimated total cost of \$100 million or more, but less than \$500 million, the LG must prepare and make available for review by the U.S. Secretary of Transportation:
 - an annual financial plan that:
 - shall be based on detailed estimates of the cost to complete the project;
 - provides for the annual submission of updates to the U.S. Secretary of Transportation based on reasonable assumptions of future increases in the cost to complete the project;
 - may include a phasing plan identifying fundable incremental improvements or phases addressing the purpose and need of the project in the short term in the event there are insufficient financial resources to complete the entire project; and
 - shall assess the appropriateness of a public-private partnership to deliver the project.

2.3.10.3 LG Responsibilities

- For federally funded major projects and projects in excess of \$100 million, the LG must ensure the project management plans and financial plans, as applicable, are prepared and maintained in accordance with federal requirements.

2.3.10.4 TxDOT District Responsibilities

- For federally funded major projects and projects in excess of \$100 million, the district must ensure the LG has prepared the appropriate project management plans and financial plans, as applicable, and maintains and submits such plans as required by federal law.

2.4 Advance Funding Agreements

2.4.1 Overview

2.4.1.1 General

In order for TxDOT to spend funds or other resources on a transportation project with a LG, a written contract must first be executed between the parties. At TxDOT, an AFA is the form of contract most frequently used for development of projects with LGs. A procurement contract is used when TxDOT contracts with another party, usually a private firm, for a well-defined good or service such as engineering plans, environmental studies or asphalt for a highway. However, the AFA is not a procurement contract. The AFA is an agreement under which TxDOT and the LG allocate participation in a transportation improvement project. The AFA allows TxDOT and the LG to “jointly” provide for the implementation of a specific project. Additional information on AFAs is available in [Chapter 2 of TxDOT’s Negotiated Contract Policy Manual](#) and the new Government Entities Procedures Guidebook under development by TxDOT’s Contract Services Division.

Effective in July 2019, TAC §15.52 eliminated the term “Standard” when referring to Fixed Price and provides a Funding Type chart that provides a recommended funding type (either Fixed Price or Specified Percentage). This chart is available in [Chapter 1, Section 5 \(10510\)](#) of the Project Development Process Manual. Generally speaking, the responsibility for overruns and increased project costs is recommended to be borne by the party managing the project activity. When an AFA includes a funding type for an activity that is not in alignment with the recommendation in the chart, special approval by the TxDOT executive director is required. TxDOT oversight costs (direct and indirect) may be a fixed price with approval from a TxDOT district engineer even when the LG is performing the project development activities and the Specified Percentage funding type is recommended for LG-managed activities. LGs should work with district offices to identify the specific requirements under the newly adopted funding chart described above.

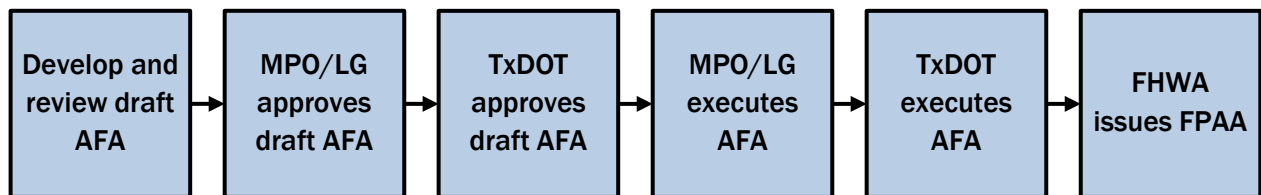
The term advance funding agreement is used throughout the Manual and Guide as the generic term for a variety of joint-funding agreements between TxDOT and LGs. The AFA defines the scope of work, labor and material resources, and cash funding responsibilities to be contributed by each party that are necessary to accomplish a transportation project. In addition to contract provisions specifying the work and resource contributions, an AFA will have other legally required provisions.

The purpose of this section of this Guide is to help the LG complete the following tasks:

- identify and assign the Responsible Person in Charge for TxDOT and LG;
- identify and assign the LG’s “qualified person”;
- identify, negotiate, execute, administer and manage an AFA for a transportation improvement or non-construction projects with TxDOT;

- identify and complete TxDOT prescribed forms, if any, including the Funding Structure Special Approval form, Oversight Level Special Approval form, Parts A & B or other forms required to complete the AFA;
- calculate and track funding; and
- implement proper contract management procedures for an AFA.

The flowchart below provides a general depiction of the process of developing and executing an AFA.



2.4.2 Responsible Person in Charge (RPIC)

The RPIC is a described requirement within the AFA. The LG and TxDOT will each name a designee as their RPIC of the project. Each agency's RPIC shall be documented in writing within the project files and communicated to the other agency.

The person designated as being in “responsible charge” is required to be a public employee who is accountable for the project. The LG's RPIC must be a full-time employee of the LG. TxDOT's RPIC must be a full-time employee of TxDOT who is also a registered professional engineer.

Each RPIC is expected to be able to perform the following duties and functions for their agency:

- administer inherently governmental project activities, including those dealing with cost, time, adherence to contract requirements, construction quality and scope of federal-aid projects;
- maintain familiarity of day-to-day project operations, including project safety issues;
- make or participate in decisions about changed conditions or scope changes requiring change orders or supplemental agreements;
- visit and review the project on a frequency commensurate with the magnitude and complexity of the project;
- review financial processes, transactions and documentation to ensure safeguards are in place to minimize fraud, waste and abuse;
- direct project staff (agency or consultant) to carry out project administration and contract oversight, including proper documentation; and
- be aware of the qualifications, assignments and on-the-job performance of the agency (LG or TxDOT) and consultant staff at all stages of the project.

These requirements do not restrict an agency's organizational authority over the person designated in "responsible charge," and they do not preclude the sharing of these duties and functions among a number of public agency employees. They also do not preclude one employee from having "responsible charge" of several projects and directing project managers assigned to specific projects. The term "responsible charge" in this section is used in the context intended in [23 CFR 635.105](#). It may or may not correspond to its usage in state laws regulating licensure of professional engineers. Any change in RPIC during the course of the project shall be documented in writing within the project files and communicated to the other agency.

2.4.3 Qualified Person

The LG is also required to assign a "qualified person" to the project. This person must work actively and directly on the project and have successfully completed TxDOT's Local Government Projects Procedures training (and received a certificate as proof of qualification) as defined in the AFA and described on the [Local Government Programs web page](#). The "qualified person" may be an employee of the LG or an employee of a firm under contract with the LG to perform management of at least one phase of the project.

2.4.4 Project Manager

Although not required by federal or state codes, it is anticipated that the LG and TxDOT will each also designate a "project manager" for the project. A project manager is responsible for the daily oversight of the project and is the primary point of contact with the other agency for day-to-day matters. The LG's project manager may be the same person as the LG's RPIC, a different employee of the LG or a consultant.

2.4.5 Parties to an AFA

To develop an AFA for a specific project, the LG staff works with TxDOT district staff. The Contract Services Division (CSD) is the central TxDOT office that prescribes the legal form and content for these agreements and supports the district staff in contract matters. For non-construction projects, the LG, TxDOT district and CSD may also work with TPP or other TxDOT divisions/offices during development of the AFA. When executed by the LG, the AFA is submitted to the district for processing and execution by TxDOT. The parties to an AFA include TxDOT and a LG such as a city, county, MPO, river authority, county or regional toll authority, regional mobility authority, independent school district, municipal utility district or another LG entity. In a limited number of situations, TxDOT may also execute an AFA with a private entity. In such a situation, the LG responsibilities indicated throughout this document will apply to the private entity just as they do a LG.

In the AFA, TxDOT and a LG negotiate an agreement determining which party is responsible for conducting work, providing funding or contributing items in-kind. Examples of work included in an AFA are:

- acquiring right of way;
- providing for utility relocation;
- performing environmental studies and environmental mitigation;

- performing preliminary engineering and PS&E development;
- supplying construction services; and
- providing maintenance of a transportation project.

The parties then follow the terms of the agreement and carry out each of the tasks assigned to them by the AFA. For example, in an AFA, TxDOT may negotiate with a LG for development of the PS&E for a specific project. Under the AFA, depending on the negotiations:

- TxDOT may perform the PS&E with its own employees (this is called “state force account work”);
- TxDOT may enter into a contract with an engineering firm to do the PS&E work;
- the LG may use its own forces to do the work, if approved by TxDOT (LG force account); or
- the LG may enter into a contract with an engineering firm for the PS&E work.

In each of these cases, TxDOT or the LG may be the party responsible for paying for all or a portion of the work, regardless of which party is responsible for performance of the work.

Under the contractual commitments established in the AFA, both TxDOT and the LG must follow their rules and regulations applicable to that type of work, as well as federal or state laws and requirements that may apply. For example, if TxDOT is going to provide the PS&E for a project by contract, the state must follow [Texas Government Code Chapter 2254](#), which specifies the process for engineering services procurements. If this engineering contract is federally funded ([23 CFR Part 172](#)), the state and the LG will also be required to allow federal auditors to audit the payments and performance related to the engineering services, as well as comply with any other applicable federal requirements.

2.4.6 Categories of Advance Funding Agreements

AFAs with LGs may be divided into three broad categories:

- AFAs for voluntary transportation projects (all local funds with no federal or state funds involved in the work);
- FHWA federally funded AFAs between the state and LGs (local or state funds along with federal funds); and
- state-funded AFAs with LGs (state funds or both local and state funds, no federal funds).

The types of AFAs and the associated policies governing them are described in detail in the [LGPP Manual](#).

2.4.7 Standard Agreements

2.4.7.1 Advance Funding Agreements

In 2019, CSD further streamlined formats for AFAs with LGs and included a newly identified category of agreement for on-system projects, where the LG contributes all funds and performs all activities, known as Local On-System Improvement Project Agreement (LOSA), which is discussed in Section 2.4.10.

The standard agreements for LG projects are as follows:

- a local project AFA (AFA-Long)
- a local project AFA with no federal funds (AFA-Long Non-Federal)
- a local project AFA for non-construction (AFA-Non-Construction Long).

The use of the above agreements further simplifies local project agreements and substantially reduces executive review and overall processing time.

2.4.7.2 AFA-Long (AFA)

The AFA standard contract sets out the general terms and conditions of the relationship and cites the federal and state laws governing the agreements with LGs. The AFA is used to define the scope of work and funding responsibilities for a specific project and establishes the contract period. The contract period usually ends upon completion of the project unless the AFA is terminated early or is extended based on an amendment. The AFA specifies the distribution of responsibilities for performing work, such as right-of-way acquisition, environmental, preparation of the PS&E, construction of the roadway and other aspects of the project. The AFA also specifies which party will provide what resources, such as the land or the funding necessary for a project. The party responsible for performing work may or may not be the party responsible for paying for the work.

The district will work with the LG to finalize the AFA using the standard templates. It should then be reviewed by CSD and other technical personnel including all relative information (i.e. scope, specifications, force account, budget, payments, required approvals, economically disadvantaged county status, etc.) prior to adoption and execution.

All pertinent project information is entered into the TxDOTCONNECT system by TxDOT staff. Prior to adoption by the LG governing body, CSD staff and other technical personnel will review the draft AFA, including all relative information (i.e. scope, specifications, force account, budget, payments, required approvals, economically disadvantaged county status, etc.).

2.4.7.3 AFA-Long Non-Federal (AFANF)

The AFANF is used when there are no federal funds involved. Since only state and/or local funding is being used, the federal provisions required for federal funding are not included. AFANF may be used if LOSA requirements are not met.

2.4.7.4 AFA-Non-Construction Long (NCAFA)

The NCAFA is used for projects that do not involve construction. Examples of projects that use NCAFA include Congestion Mitigation Air Quality projects, van pool programs, diesel emissions programs, bike share programs, motorist assistance programs and public information campaigns.

2.4.7.5 Tracking the Status of AFAs

When a partially executed AFA is sent by the TxDOT district office to CSD for processing, it is entered into the CSD contract log for tracking. TxDOT district offices can track the status of AFAs in the review and approval process by referring to the CSD contract log.

2.4.7.6 Local On-System Improvement Project Agreement (LOSA)

The LOSA is a new agreement with the LG that is available for use. The primary purpose is to document a construction project located on the state highway system right of way for which the LG is contributing all funds and managing or performing all engineering and construction activities.

There are numerous requirements that must be considered if a LG believes the project should use a LOSA and should be discussed with the TxDOT district as soon as a project is identified.

LOSA projects are not considered LG projects under the strict definition in [Chapter 1](#) of this Guide and, therefore, many state and federal requirements are not applicable.

If the provisions of the LOSA are not acceptable, then the LG must use an AFA-Long Non-Federal template to document the agreement between the parties.

2.4.8 Additional Information Regarding Funding Approvals

The [LGPP Manual](#) contains additional information regarding requirements for funding approvals for both the LG and TxDOT, including:

- Texas Transportation Commission approval (minute order);
- Oversight Level Special Approval, Part A & B forms, or other forms (if required);
- Local government authority approval (city ordinance, county resolution, etc.);
- Approval by FIN (outstanding balance) – check for LG outstanding balance with the state; and
- Special approvals – for LG work related to local letting, local force account work, specified percentage agreement, incremental payment agreement and approval of projects in [economically disadvantaged counties](#).

The Oversight Level Special Approval, Part A form is completed by the LG requesting approval to perform or manage one or more elements of the project development process. The form is signed and dated by a LG representative and submitted to the local TxDOT district office to initiate the evaluation process.

District personnel will review the information furnished by the LG in the Oversight Level Special Approval, Part A form (described in 2.3.2.1) and complete its evaluation using Part B of the form. Upon completion of the district's evaluation, the TxDOT district engineer or division director recommends which project development activities, if any, can be performed or managed by the LG and commits the district or division to a minimum oversight level for the LG-performed activities. The recommendation is signed and dated by the district engineer or division director, submitted to the deputy executive director for review and submitted for concurrence by CSD at the same time other documents are submitted for review and approval.

2.4.9 Funding Overruns

2.4.9.1 General

One provision of the AFA between a LG and TxDOT is the funding arrangement. State, federal and local funding is limited to the values indicated in the agreement unless the AFA is amended in writing. The [LGPP Manual](#) provides the state regulations pertaining to the funding arrangement in the AFA.

2.4.9.2 Required Practices

- For projects with state or federal funds, the LG must follow the terms of the project AFA executed with TxDOT and the LG. TxDOT will not provide additional funds for overruns unless such funding is contained in the AFA or any amendments.

2.4.9.3 LG Responsibilities

- For all projects with state or federal funds, the LG must:
 - follow the terms of its AFA with TxDOT; and
 - provide additional funding for overruns as defined in the AFA and any amendments.

2.4.9.4 TxDOT District Responsibilities

- For projects with state or federal funds, the district:
 - is responsible for collecting funds and tracking the status of the project agreement as discussed in [Chapter 10 – Project Close-out and Maintenance](#) of this Guide;
 - should advise the LG of its responsibilities when funding overruns become apparent; and
 - must assure the proper distribution of funds at project close-out in accordance with the project AFA.

2.4.10 AFA Amendments

If there is a significant change in the scope of work, funding or time, the district will prepare an AFA amendment that sets forth the change and the reason for the change. Frequently this is related to a construction contract change order but may be necessary for non-construction

projects as well. The same designee authorized to sign the original AFA signs the amendment and coordinates distribution. If additional funding is required, the LG remits the additional amount in accordance with the terms of the original AFA.

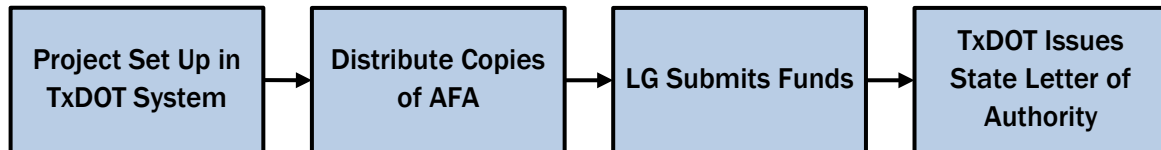
An amendment to the AFA will frequently trigger a change order in the related bid documents or scope of services. Any change in the scope of the project must be consistent with TxDOT's change order policy. If the proposed change is outside of the change order policy, the district must coordinate with TxDOT's Design Division to get a new minute order to authorize the new project. If the change is consistent with TxDOT's change order policy, no new minute order is needed and the appropriate TxDOT division will coordinate with the district to issue the appropriate change order for construction and non-construction projects, respectively. See [Chapter 7 - Plans, Specifications & Estimates \(PS&E\) Development](#) and [Chapter 9 - Construction](#) of this Guide for a description of change order procedures.

2.5 State Letter of Authority

2.5.1 Overview

Once a project is identified and a contract (AFA) is executed between the LG and TxDOT, the LG must request and obtain authorization to proceed with the project work. This authorization is in the form of a state letter of authority (SLOA).

The high-level tasks shown in the flowchart below should be completed to obtain authorization to begin the next phase of project development.



The SLOA must be issued on all LG projects whether the work is done by the LG or others. For non-construction projects, a single SLOA is required prior to initiation of work on the project. This SLOA is requested by the LG, issued by TxDOT and functions as the notice to proceed with the work.

For LG transportation projects that include construction involving state or federal funding, up to three SLOAs may be required by TxDOT and issued during the course of the project.

- The first SLOA is required prior to the Preliminary Engineering phase, and is requested and issued after the execution of the AFA and prior to any work being performed on the project. It is usually issued directly by the appropriate TxDOT district office.
- The second SLOA is required prior to the acquisition of right of way or the accommodation of utilities, and is requested and issued upon completion of the Environmental Compliance phase of the project. The SLOA initiates the Right of Way and Utility phase of the project. It is required prior to the acquisition of any right of way or other land for the project and prior to moving forward with utility accommodations. It is usually issued directly by the appropriate TxDOT district office.
- The third SLOA is required prior to initiation of advertising for construction, and must be signed and dated prior to advertisement of the project or prior to commencement of construction when the LG is doing work by force account. This SLOA is generated upon approval of the final plans at the end of the PS&E phase of the project.

A federal project authorization and agreement (FPAA) is required in addition to the SLOA for all non-construction and construction projects that are federally funded (it is not required for projects only including local and state funds). The primary function of this form is to obligate federal funds for the project by phases. By completion of the FPAA form, federal funds are authorized through an agreement between FHWA and TxDOT for reimbursement of the approved costs. The FPAA is required prior to TxDOT issuing each SLOA.

2.5.2 Obtaining Authorization

2.5.2.1 General

The SLOA (and FPAA, if required) allows work to proceed on the project. Costs incurred by the LG prior to the date of the SLOA are not eligible for reimbursement. TxDOT issues the SLOA in response to a written request from the LG. For projects involving federal funding, TxDOT initiates the SLOA and submits the required project information to FHWA for approval. Once the project is approved as eligible for federal reimbursement by FHWA, TxDOT generates the FPAA and only then may the district issue the SLOA to the LG. Depending on the phase of work, the LG must fulfill certain requirements before the authorization may be issued. The [LGPP Manual](#) provides the federal and state regulations related to the SLOA and FPAA.

For federal-aid projects, TxDOT becomes a recipient and the LG becomes a subrecipient of the federal funding and must follow federal regulations requiring TxDOT to verify all subrecipients register in the System for Award Management (SAM) database, maintain an active SAM registration with current information and provide a Data Universal Numbering System (DUNS) number with ZIP+4 prior to the time of award. A DUNS number identifies an entity by assigning it a unique nine-digit identification number. The ZIP+4 is the zip code plus an additional four digits based on the entity's physical address. TxDOT and FHWA consider the "time of award" to be the execution of the FPAA. In practice, the TxDOT district must obtain and verify the DUNS number prior to requesting a FPAA.

2.5.2.2 Required Practices

- The TxDOT districts are responsible for processing all SLOAs and for requesting FIN to process FPAA's on LG projects. Upon request from the district to obtain the FPAA for construction, FIN also generates the SLOA form and forwards it to TxDOT's Environmental Affairs Division (ENV) for verification the project has received environmental clearance.
- Districts are responsible for verifying the DUNS number and active status of the SAM registration for the LG prior to requesting a FPAA.
- TxDOT may not make an award (execute the FPAA) to a LG until the LG has provided a valid DUNS number and maintains an active SAM registration with current information. If the LG has not complied, TxDOT may determine the LG is not qualified to receive the award and make the award to another applicant.
- Upon receipt of the approved FPAA, FIN will initiate the project setup in the TxDOT financial management system. Charges to the project within the financial management system are not allowed until after TxDOT receives the initial deposit of LG funds.
- SLOAs (and FPAA's for federally funded projects) are required for projects requiring TxDOT approval in order to initiate preliminary engineering, right-of-way acquisition and utility accommodation, and construction.

2.5.2.3 LG Responsibilities

- The LG must register in the SAM, maintain an active SAM registration with current information and provide a DUNS number to TxDOT.
- For projects with state or federal funds, or on the state highway system regardless of funding source, the LG must request and obtain a SLOA (and FPAA, if applicable) prior to initiating work on preliminary engineering, right-of-way acquisition and utility accommodation, or construction. The LG's project manager should coordinate with TxDOT's project manager to request the appropriate SLOAs throughout the project. For the SLOA required to initiate the construction phase, the LG must:
 - for design-bid-build projects:
 - submit the final PS&E for TxDOT approval;
 - request TxDOT authorization to advertise for receipt of bids; and
 - not bill costs incurred prior to date of authorization.
 - for design-build projects:
 - submit the request for proposals (RFP) and other documentation for TxDOT approval;
 - request TxDOT authorization to issue the RFP; and
 - not bill costs incurred prior to date of authorization.

2.5.2.4 TxDOT District Responsibilities

- The TxDOT district must verify the current status of the LG's registration in the SAM and obtain the LG DUNS number before requesting each FPAA. To accomplish this task, the district must obtain the DUNS number from the LG and verify the DUNS is valid and has not expired. The district must document in its project files the date and individual who verified the validity of the DUNS. For projects with federal funds, the district will provide the DUNS and ZIP+4 to FIN.
- For construction projects with state or federal funds, and all projects on the state highway system regardless of funding source, the LG will request a SLOA/FPAA by submitting the appropriate supporting documentation to TxDOT. TxDOT will initiate the SLOA, process the FPAA through FHWA and issue the SLOA to the LG. To issue the three SLOAs (and FPAA, if applicable) for a construction project, the district must:
 - review the appropriate documents for the particular phase of the project prior to:
 - initiating work on the Preliminary Engineering phase;
 - right-of-way acquisition or utility accommodation; and

- advertising construction or initiating force account work;
- request FIN to obtain the FPAA via email to *FIN_FPAA-Requests* and, for construction phase authorization only, to generate the SLOA form and to forward it to ENV for verification the project has received environmental clearance;
- coordinate with FHWA on [major projects](#) (greater than \$500 million or a project with a TIFIA loan at any amount), Transportation Investment Generating Economic Recovery (TIGER) discretionary grant projects and other FHWA projects of division interest that FHWA has retained project authorization approval action;
- Deliver the executed SLOA and FPAA to the LG;
- For non-construction projects with a MPO acting as the LG, the appropriate TxDOT managing division/district:
 - obtains the DUNS and ZIP+4, verifies the validity of the DUNS, documents the verification in the project file and submits the DUNS and ZIP + 4 to FIN;
 - coordinates with the district to ensure the funding is accurately reflected in the letting management plan for the district and the FPAA is requested from FIN; and
 - issues the notice to proceed (SLOA) upon receipt of the FPAA and forwards a copy of the SLOA to the appropriate district personnel.

2.6 Project Accounting

2.6.1 Overview

Although accounting tasks are performed throughout the project, specific financial elements must be considered early in the Project Initiation phase of the project in order to be adequately addressed during the project and avoid accounting problems when the project is completed. This section addresses several of these elements. In addition, early in the project development process, the LG should also review the policies presented in the [Non-construction Projects](#), [Preliminary Engineering and Design](#), [Construction](#) and [Project Close-out and Maintenance](#) chapters of the LGPP Manual to ascertain if additional elements may need to be addressed. Policies are contained in the LGPP Manual, while procedures are included in this Guide.

2.6.2 Invoicing and Monitoring the Project Financial Records

The LG is allowed to submit reimbursement requests, with attached status report and schedule, no more frequently than once per month. The LG is strongly encouraged to submit invoices and back-up materials on a monthly basis when work is performed. For months where no reimbursement is required, the LG should submit a status update stating the reason. This will facilitate efficient TxDOT review of requests and verification of work performed. LG project personnel are responsible to keep accurate financial records and documentation on their projects. TxDOT project personnel have a responsibility to work with their LG counterparts to ensure the adequacy and accuracy of the project financial records in compliance with all applicable federal and state requirements plus any additional requirements stated in the project's AFA.

2.6.3 Inactive Project Obligations

FHWA defines an inactive project obligation as a federal-aid project with no expenditure for a year. The LG must bill in a consistent manner during the term of the project. The TxDOT project manager must provide consistent oversight of project progress and billing.

2.6.4 Collection of Funds

The district or division managing an AFA is responsible for collecting the agreed-upon funding from the LG in accordance with the terms of the AFA. A Notice of Funds Due will be sent to the LG along with an original copy of the executed AFA and the SLOA (and FPAA, if applicable). At the time the LG transmits the project funds to TxDOT, the district/division is to deposit the funds via Rapid Deposit into Trust Fund 927 for construction projects. If the funds are for maintenance work, they are temporarily placed in Segment 60, Fund 6 and then applied to the district's maintenance budget with the assistance of FIN's Budget and Forecasting section.

2.6.5 Advance Payments

In most cases, the LG will make advance payments to TxDOT for one or more purposes. These purposes could include covering:

- TxDOT oversight costs;
- acquiring right of way;
- developing engineering plans; or

- constructing the project.

As stated in the AFA, these LG advance payments are collected prior to starting the work that will be paid for with the LG advance payments. The LG will deliver the funds to the district office. The district will deposit the funds and coordinate with FIN. In most cases the LG will work only with the district office.

The amount of funds advanced and the date they are due are specified in the AFA between TxDOT and the LG. After the project is complete, the TxDOT district and FIN will coordinate to perform a close-out accounting for project funds based upon the terms in the AFA. If the LG participation is based upon a fixed-fee, no additional funds will be due from the LG or due to the LG. If the LG participation is a specified percentage or alternative method and the LG has overpaid or underpaid:

- the TxDOT district will work with FIN to develop the final statement of costs (SOC) and contact the LG to make a refund or request for additional funds, as appropriate; and
- for non-construction projects in which a MPO is acting as the LG, TPP develops the SOC and any request for additional funds.

2.6.6 Interest

TxDOT does not pay interest on funds provided by a LG.

2.6.7 Indirect Costs

[Texas Government Code §2106.001](#) defines indirect costs as “the cost of administering a state or federally funded program and includes a cost of providing a statewide support service. The term does not include the actual costs of the program.” “Support service,” as used in the code, includes accounting, auditing, budgeting, centralized purchasing and legal services.

The language used in TxDOT’s AFAs is closely aligned with the Texas Government Code by using the terms “direct” and “indirect” costs to differentiate between costs incurred by providing a statewide support service (indirect) and the actual costs of the program (direct). For federal- and state-matching fund programs, the current TxDOT policy is not to bill third parties for certain indirect costs on highway improvement projects.

Two billing rates are used by each TxDOT district. Additional information is available from FIN’s Accounting Management section.

- A statewide rate is used for billing indirect costs on damage claims and billing local entities for indirect costs on voluntary projects.
- An individual rate for each district is combined with the Austin headquarters rate for performing cost estimates on construction projects. These individual rates are also used by FIN to distribute indirect costs to the projects and in billing FHWA on federally funded projects.

2.6.8 Payment for Surveying Contracts

If payment for surveying is a responsibility of TxDOT or if the LG is requesting reimbursement for surveying services from TxDOT, the specified rate is the basis of payment used for surveying contracts by TxDOT. The LG may use any basis of payment allowable under state law, which includes the specified rate basis of payment.

2.6.9 Withdrawal from the Project

If a LG withdraws (or is terminated) from a project after an AFA has been executed, the LG is responsible for payment of all direct and indirect project costs previously incurred by TxDOT for the items of work in which the LG is participating.

2.7 Project Documentation and Data Submittal

2.7.1 Overview

Project records, including legal documents, meeting minutes, reports from material testing, etc., must be maintained by the LG during the course of the project. Specific regulatory requirements for records retention are found below and in Chapters [9](#) and [10](#). These requirements ensure compliance with state and federal statutes for contract elements such as equal employment opportunity, equipment rental rates, non-segregated facilities, prevailing minimum wage (Davis-Bacon Act) and Title VI. In addition, requirements for record retention are included in contract administration tasks (see [Chapter 9](#)) to ensure proper documentation of progress payments, quality assurance program, specification compliance, statements and payrolls, and other contract elements.

This section provides guidance for the LG for two types of records generated during a transportation project: records retention; and legacy system data submittal. Records retention relates to the legal and other documents used to administer the project. Data submittal relates to the data collected during the project that is used to populate the TxDOT legacy systems. Requirements for both of these records are specified in AFA.

2.7.2 Records Retention

2.7.2.1 General

As soon as the contract between the LG and the contractor is executed, the LG should establish a system to maintain and organize the project records. Early organization of the project documents and files by the LG will ensure an audit by TxDOT or FHWA during or at the close of the project will proceed smoothly. Proper record keeping also aids in the administration of the project by documenting compliance with local, state and federal procedures and policies.

The LG must retain records as specified in the AFA and in accordance with applicable federal and state records retention schedules. The TxDOT district must also retain records as specified in the AFA and in accordance with TxDOT's [Records Retention Schedule](#). The TxDOT district must also ensure the LG is maintaining the appropriate records to aid both TxDOT and FHWA during project audits.

After the contract is executed between the LG and the approved contractor (following the letting process described in [Chapter 8](#)), project records provide documentation and support for the payments for contract work. For construction projects, records also include documentation of pay quantities, test reports supporting that the materials used meet specification requirements and a variety of contract administration documentation.

FHWA does not specify the content and format of job records; however, FHWA approves TxDOT manuals and procedures used on federal-aid projects. The LG has the option of adopting TxDOT's job record process or submitting its own for TxDOT concurrence. The goal is to give TxDOT a level of comfort when it certifies to FHWA that a project has been completed in substantial conformity with the approved plans and specifications, including authorized changes.

The [LGPP Manual](#) provides the state and federal regulations related to document retention.

2.7.2.2 Required Practices

- For projects with state or federal funds, or projects on the state highway system regardless of funding source, the LG must use TxDOT's [Records Retention Schedule](#) (available from TxDOT) or submit an alternate procedure for TxDOT approval. This approval must be received before work on the project begins

2.7.2.3 LG Responsibilities

- The LG must adopt the TxDOT Records Retention Schedule or submit a record management system to TxDOT for approval.
- The LG must retain records for the period defined within the AFA.

2.7.2.4 TxDOT District Responsibilities

- For projects with state or federal funds, or projects on the state system regardless of funding source:
 - if the LG does not adopt TxDOT's Records Retention Schedule, the district must submit the LG's proposed records retention system to TxDOT's Construction Division for approval; and
 - the district must spot check the LG project records for compliance with the approved system during periodic inspections.
- The district must retain its project records in accordance with TxDOT's [Records Retention Schedule](#).

2.7.3 Highway System Data

2.7.3.1 General

When TxDOT manages the development and construction of its own projects, various data is collected about the project and highway segment for future use. Examples of data collected include the following.

- TxDOTCONNECT maintains project information including cost, letting date and other specific project information.
- Pile driving information is to be [recorded](#) and provided to TxDOT for the life of the structure and to be maintained for on-system projects.
- Highway Condition Reporting requires input for all on-state system routes and third parties may be required to submit the data in accordance with TxDOT procedures when they maintain on-state system routes.

The specific requirements for data to be provided for each project will be addressed in the AFA and may include the following.

- System name – identifies the system for which the data is needed
- System acronym – the designation used in TxDOT documents
- System office of primary responsibility (OPR) – identifies the TxDOT OPR for that system
- System description – description of the system included in the project
- Data – describes the type of data required for the project
- When needed (time and parameters) – specifies the point in time and under what conditions the data should be submitted
- Recommended method for data submission – defines the format for the data submittal (hard copy, electronic submission or direct system input) and where to send the data

2.7.3.2 Required Practices

- The types of data required from the LG are specified in the AFA.
- The TxDOT district must identify to the LG the types of data and format for submittal.
- The LG must submit the data to the TxDOT district.
- The TxDOT district must store the data in the appropriate data system.

2.7.3.3 LG Responsibilities

- The LG must submit the requested data in the format required.

2.7.3.4 TxDOT District Responsibilities

- The district must identify to the LG the required data and format.
- The district must collect the required data in the correct format from the LG and store it in the appropriate data system.

3 Non-Construction Projects

3.1 Introduction

A non-construction project or program is defined as any transportation-related project or program not involving the act or process of building transportation infrastructure. Typical non-construction projects involving the Texas Department of Transportation (TxDOT) and a local government (LG) partner are planning studies; development of a travel demand model; management of a “shared ride” service; a “motorist assistance” program; a transportation corridor analysis; etc. [Chapter 3](#) of the Local Government Projects Policy Manual (LGPP Manual) provides the state and federal laws and policies that must be followed during a non-construction project. This chapter of the Local Government Project Management Guide (LGPM Guide) provides the required practices that should be used by a LG during management of the project and the related procedures used by TxDOT to provide oversight of the project.

3.1.1 Advance Funding Agreement

The Advance Funding Agreement for non-construction projects (NCAFA) is a standard agreement for local projects not involving construction. Examples include, but are not limited to, congestion mitigation and air quality (CMAQ) projects, some surface transportation program–metropolitan mobility projects, van pool programs, diesel emissions programs and public information campaigns. For the purposes of the LGPM Guide, all agreements are referred to as AFAs.

The AFA is executed between TxDOT and the LG. For many types of non-construction projects or programs, the TxDOT district typically serves as the primary point of contact with the LG and provides oversight of the project or program. For these projects/programs, the AFA is executed between TxDOT and the LG. In many of these non-construction projects, the metropolitan planning organization (MPO) performs the project selection process.

For non-construction projects or programs when the MPO or rural planning organization (RPO) is filling the role of the LG, the district or TxDOT’s Transportation Planning and Programming Division (TPP) may serve as the primary point of contact with the LG and will provide oversight of the project or program. For these projects/programs, the AFA is executed between the MPO/RPO and TxDOT. In this situation, the local TxDOT district will frequently provide project support through technical expertise and other resources.

3.1.2 Statewide Transportation Improvement Program

MPOs regularly advertise potential funding opportunities for non-construction projects. Some MPOs conduct program calls on an annual basis; others conduct them when federal and/or state funds become available. The MPO will gather submittals for proposed projects from the LGs within its boundaries, evaluate the candidate projects, select approved projects, incorporate them into its Transportation Improvement Plan (TIP), and submit its TIP to TxDOT, which then incorporates the projects into the [Statewide Transportation Improvement Program](#) (STIP) (see [Chapter 2 - Project Initiation](#)). Once TxDOT and the Federal Highway Administration (FHWA) approve the STIP, the sponsor LG and district will develop and execute the AFA for a particular project.

3.1.3 State Letter of Authority

As discussed in [Chapter 2 - Project Initiation](#), the state letter of authority (SLOA) is a form that must be issued on all projects whether the work is performed by the LG or contracted out to a third party. For non-construction projects, the SLOA is frequently issued in the form of a notice to proceed issued by TxDOT to the LG.

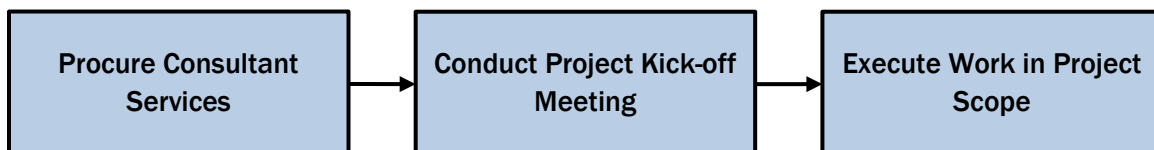
For projects not involving federal funds, the request from the LG and issuance of a SLOA from TxDOT is required prior to initiation of work on the project. A federal project authorization and agreement (FPAA) is required in addition to the SLOA for all federally funded projects. The primary function of this form is to obligate federal funds for the project. By completion of the FPAA form, federal funds are authorized through an agreement between FHWA and TxDOT for reimbursement of the approved costs. For projects involving federal funds, TxDOT initiates the SLOA and submits the required project information to FHWA for approval. Once the project is approved as eligible for federal reimbursement by FHWA, TxDOT generates the FPAA and may issue the SLOA to the LG. Additional approval documentation, such as a memo from the district, may be required to obtain the FPAA. LGs should coordinate with the district to ensure all appropriate documentation is provided.

3.1.4 Non-construction Project Flowchart

The project may proceed upon receipt of the FPAA/SLOA or notice to proceed by the LG as described in [Chapter 2 - Project Initiation](#). Project management of a non-construction project usually includes the following general tasks:

- procure consultant services (including conformance to Title VI);
- kick-off meeting (LG, TxDOT, consultants);
- execute project scope;
- submit final deliverables; and
- project close-out.

This chapter of the Guide contains the general procedures and practices that may be used by the LG and TxDOT during procurement of services, contract administration and application of the contract elements of a non-construction project or program. A workflow of the Non-Construction phase is presented in more detail in the [LG Project Process Development Flowchart](#).



3.2 Professional Services

3.2.1 Selection of Professional Service Provider

The LG may use a professional services provider for architecture, landscape architecture, professional engineering or surveying. The [LGPP Manual](#) provides a description of the regulations related to professional service providers. These regulations require LGs to use TxDOT's qualifications-based competitive selection process for the procurement of any professional services for all types of transportation projects involving state or federal funding. If the LG proposes to use an alternate selection process, it must be approved in advance in writing by the TxDOT district. The LG must also obtain TxDOT approval prior to entering into a contract with a service provider. Detailed guidelines regarding the state and federal requirements for procuring professional services are described in [Chapter 4 - Preliminary Engineering and Design](#).

Professional service providers (contractors and suppliers) are not allowed to participate in federally funded projects if they are suspended or debarred. The professional service provider is required to certify as to its current eligibility status. Certification is also required of all prospective participants in lower-tier transactions. This includes subconsultants, material suppliers, vendors, etc. The state of Texas has similar requirements prohibiting contracts with debarred providers. The LG is required to verify its professional service providers and lower-tier providers are not debarred by the federal or state government prior to contract award. Additional information on debarment is provided in the [Debarment Certification section](#) of Chapter 7.

3.2.2 Donation of Engineering Services

Federal law allows "persons" to donate funds, materials or services in connection with a federal-aid project as described in the [LGPP Manual](#). TxDOT may credit the fair market value of donated engineering services to the state and/or local share of the project. However, the donation must be a service needed for the project. If the LG proposes to apply the cost for engineering services performed by its own personnel to the non-federal share, the LG must determine the cost effectiveness of local performance of services, receive TxDOT written approval prior to commencing the engineering services and provide documentation of all costs submitted for credit.

3.3 Procurement of “Other” Goods and Services

3.3.1 Overview

In some cases, the LG will need to procure the services of a consultant (not professional services) to help it conduct the project or part of the project. Some project examples include: transportation planning services for the development of a travel demand model; providers for management of a “shared ride” service; providers of a “motorist assistance” program; bicycles for a CMAQ project; and demographic data for a transportation corridor analysis. The LG must comply with the procurement requirements as outlined in [Texas Government Code, Chapter 2254](#), Subchapter B “Consulting Services”. The LG must follow procurement procedures that have been pre-approved by TxDOT in order to get reimbursed for these services.

3.3.2 Procurement Procedures

A detailed description of the rules for the procurement of goods and services is provided in the [LGPP Manual](#). In general, the LG will use its routine procurement procedures under the Texas Government Code for the purchase of goods and services not related to construction or professional services. The [Uniform Grant Management Standards](#) (UGMS), published by the Texas Comptroller of Public Accounts, summarize the allowable procedures for federal and state funded projects. The LG must receive TxDOT pre-approval of its procurement procedure to assure reimbursement of the costs for the goods or services. TxDOT’s review and approval is to assure compliance with federal and state procurement requirements.

Contractors and suppliers are not allowed to participate in federally funded projects if they are suspended or debarred. The contractor or supplier is required to certify as to its current eligibility status. Certification is also required of all prospective participants in lower-tier transactions. This includes subcontractors, material suppliers, vendors, etc. The state of Texas has similar requirements prohibiting contracts with debarred contractors. The LG is required to verify its prime contractors/suppliers and lower-tier providers are not debarred by the federal or state government prior to contract award. Additional information on debarment is provided in the [Debarment Certification section](#) of Chapter 7.

3.4 Contract Administration

3.4.1 Overview

Contract administration and oversight involves four general processes: project/contract planning; monitoring contract performance; payment approval with required documentation; and scope changes. The goal of contract administration is to ensure the contract is performed satisfactorily and the responsibilities of both parties are properly discharged. The primary objectives of contract administration are to:

- verify performance for the purpose of payment:
- identify “material breach of contract” by assessing the difference between contract performance and material non-performance;
- determine if corrective action is necessary; and
- take such action if required.

In order to achieve the goal and objectives of contract administration, a non-construction project must have a well-defined scope of work, clear communications through project meetings, a detailed plan for monitoring the progress of the project and complete documentation of the project work elements.

3.4.2 Scope of Work

The scope of work developed during negotiation of the AFA is the roadmap for contract administration. Therefore, the LG, in close cooperation with the district, TxDOT’s Contract Services Division (CSD) and TPP as necessary, should always take care in developing a scope of work and in identifying a set of deliverables that can be reasonably performed during the course of the contract. It is the LG’s responsibility to meet the requirements of the contract.

In general, the LG project must be contained in the [STIP](#). The STIP is approved by TxDOT and FHWA. Therefore, the LG must provide a concise scope of work that is consistent with the project described in the STIP and conforms to the project title approved in the STIP.

3.4.3 Post-Award Meeting

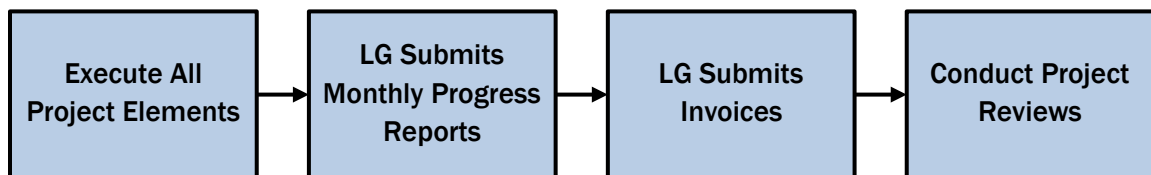
After the SLOA (notice to proceed) has been issued along with transmittal of a copy of the FPA to the LG, a post-award meeting may be held between the LG and TxDOT project oversight personnel (district or TPP, as applicable). For projects continuing an existing program (such as van pool and similar projects) a post-award meeting may not be necessary. The TxDOT project manager will determine if the meeting would be beneficial to the project. If the TxDOT project manager decides to hold a post-award meeting, the purpose of this meeting is to ensure a clear and mutual understanding between the LG and TxDOT of the contract scope, major performance milestones, invoicing, deliverables, progress reports, and expectations and authority of all parties.

Although personnel from both TxDOT and the LG should be fully aware of the contract requirements, the post-award meeting provides an opportunity to ensure those involved directly with the performance of the project and administration of the AFA understand all of the requirements for contract performance. Following the meeting, the TxDOT project manager will prepare a summary of the meeting for the project file and submit a copy to all meeting attendees.

3.4.4 Monitoring Performance

3.4.4.1 General

The LG is responsible for execution of all project elements in accordance with the AFA. The TxDOT project manager will provide oversight and contract administration for invoices and work progress. As part of this execution and oversight, both parties are responsible for monitoring the performance of the contractor/consultant throughout the project and for ensuring the project is completed in accordance with the contract terms detailed in the AFA. The flowchart below provides a general depiction of the process of monitoring the project. More detailed information on the project documentation and data submittal requirements is contained in [Chapter 2](#). Information on the project close-out requirements is contained in [Chapter 10](#).



3.4.4.2 Required Practices

As defined in the AFA, four tools may be utilized by the LG and TxDOT to monitor project progress.

- *Monthly progress reports* – The LG will prepare a monthly progress report consisting of recent activity and problems encountered and submit it to TxDOT’s project manager with its invoice. If no activity has occurred, then the LG will submit a progress report indicating no activity. A monthly progress report is mandatory. A progress report is required regardless of whether an invoice is submitted. The purpose of the progress report is so the LG can demonstrate the following.
 - Compare performance against contract requirements
 - Compare actual expenses to the budget
 - Compare progress during the current period to prior periods

- *Project meetings* – When appropriate, a meeting between the LG and TxDOT project personnel (project manager and appropriate district and/or division staff as deemed necessary by the project manager) should be held. The project meeting should be used to discuss regular project activity and billings, monitor progress and discuss problems. It is recommended, at a minimum, a project meeting should be held on a quarterly basis. The meetings can be held at the district office, LG’s office, via conference call or webinar. In all cases, the LG will prepare a summary of the meeting for the project file and submit copies to all meeting attendees.
- *Invoices/progress payments* – Progress payments are compensation paid to the LG for the value of work performed during a covered period. Payments should be based on the value of the work performed (supported by satisfactory deliverables and appropriate documentation of work performed). The LG is allowed to submit reimbursement requests, with attached status report and schedule, no more frequently than once per month. The LG is not required to submit invoices on a monthly basis but is strongly encouraged to submit reimbursement requests each month work is performed. For months where no reimbursement is required, the LG should submit a status update stating the reason. This will facilitate efficient TxDOT review of requests and verification of work performed. Consistent billing by the LG is required for federal-aid projects. A federal-aid project may be defined as an inactive project obligation by FHWA if no expenditures are made for a year (see [Project Accounting](#) in Chapter 2). All requests for federal reimbursements of payments by the LG must go through TxDOT. The TxDOT project manager will review each invoice submitted to verify the costs billed are consistent with the terms and conditions of the AFA and all supporting documentation is evident, such as cost reports, collateral material and third-party invoices.
 - Non-construction LG contracts are cost reimbursement type contracts – they do not advance funds or allow a LG to draw funds based on anticipated expenditures. If the LG consistently provides incorrect invoices or the supporting documentation is insufficient to support the invoice, then additional monitoring such as increased project meetings and site visits may be necessary.
 - The TxDOT project manager will review each invoice to verify the requested progress payment amount does not exceed the total project cost as fixed by the AFA and all charges are mathematically accurate and consistent with the contract scope. The TxDOT project manager should not approve payment of any invoice amounts in excess of the authorized contract amount. If (somehow) money in excess of the total project cost is paid to the LG, the LG will have to reimburse TxDOT for all overruns.
 - For projects with federal funds, FHWA cannot make final reimbursement for a project until TxDOT approves the completion of project, including receipt and approval of all required deliverables.
 - The LG must prepare pay estimates with non-reimbursable items separated from reimbursable costs.

- **Project reviews** – Project reviews can be used to verify actual performance against scheduled or reported performance. They ensure the LG is dedicating sufficient resources and appropriate personnel to the contract. Project reviews also reinforce the importance of the contract to the LG, as well as provide the opportunity to enhance communication with the LG. The TxDOT project manager may visit the office of the LG from time to time to meet with staff to discuss the project and to review source documents and other contract records. Other TxDOT staff may accompany the project manager to review progress on technical matters, to review financial records or to assist in performing other project oversight tasks. Project reviews should be conducted in accordance with the oversight level established by the Oversight Special Approval form (more information regarding the oversight level can be found in [Chapter 2](#)). Following the project review, the TxDOT project manager will prepare a summary of the meeting for the project files and submit a copy to the LG. Additional project reviews should be scheduled for any follow-up issues, as needed.

3.4.4.3 LG Responsibilities

- The LG will monitor the quality of the items of work (deliverables), satisfactory progress, contract time, project costs/payments and LG subcontracts/vendors.
- The LG will prepare and submit monthly invoices to the TxDOT project manager.
- The LG will prepare and submit a monthly progress report to the TxDOT project manager.
- The LG is responsible to prepare and retain all required documentation within its project files.
- On projects where property has been acquired, the LG must maintain a physical inventory.

3.4.4.4 TxDOT Responsibilities

- The TxDOT project manager will monitor the progress of the project in accordance with the established oversight level.
- TxDOT will verify work is progressing in accordance with the AFA. TxDOT will actively monitor the progression of work as reported in the monthly progress reports submitted by the LG to ensure the remaining work to be performed is consistent with the remaining budget, as defined in the AFA.
- On federally funded projects where property has been acquired, the TxDOT project manager will conduct an annual physical inventory of property acquired.

- The TxDOT project manager will conduct project reviews in accordance with the established oversight level to determine if the LG is carrying out all elements of the scope of work and only the items of work authorized in the AFA. The project manager will verify the work is being performed in accordance with the terms of the AFA.
- The TxDOT project manager and/or TxDOT technical personnel will attend project committee meetings scheduled by the LG.
- The TxDOT project manager will monitor the project with respect to the time limits set in the AFA. The work will begin only after the FPAA has been signed and the LG has been given the SLOA (notice to proceed).
- The TxDOT project manager will review the monthly invoices submitted by the LG to verify:
 - costs were properly incurred (within contract period, for authorized tasks, etc.);
 - work is performed within the terms of the contract;
 - payments do not exceed the total funding available; and
 - submitted costs are mathematically accurate, authorized and allowable.
- Upon completion of a review of the LG-submitted reimbursement request, the TxDOT project manager will attach the LG request for reimbursement to the LG payment form and follow district or division procedures to process for payment.
- TxDOT district or division will check TxDOT financial management system reports at least monthly (prior to approving LG reimbursement requests for progress payments) to verify payments, check charges against the project and check remaining fund balances.
- TxDOT is responsible for certifying to FHWA that the CMAQ database has been updated by the MPO and reviewed by TxDOT on an annual basis. Currently, TPP is responsible for reviewing and approving the information.

3.4.5 Supporting Documentation

With each invoice, the LG is required to submit legible and proper documentation to validate all the expenditures being claimed on the invoice. This may include timesheets, receipts and third-party invoices approved by the project manager. If the receipts or third-party invoices are for more than one project, the LG should highlight the charges applying to the current project invoice. Significant expenses on the invoice must have supporting documentation in order to be reimbursed. The LG should coordinate with TxDOT on the required backup documentation. TxDOT will review the invoice and back-up documents and, if necessary, gather additional information from the LG that resolves issues or discrepancies in the invoice. TxDOT will process approved requests for reimbursements in accordance with district or division policies and procedures.

3.4.6 Records

Project records provide documentation and support for the payments for contract work performed. [Chapter 2 - Project Initiation](#) contains a detailed description of the types of documentation that must be kept for any transportation project and lists the federal and state regulations governing records retention. The LG must retain records as specified in the AFA and in accordance with all applicable record retention schedules. The TxDOT district must also retain records as specified in the AFA and in accordance with TxDOT's [Records Retention Schedule](#). The TxDOT district must ensure the LG is maintaining the appropriate records to aid both TxDOT and FHWA during project audits.

3.4.7 Corrective Action

If TxDOT, through its project manager, determines the LG is not performing in accordance with the terms of the AFA, appropriate corrective action will be requested of the LG. Corrective action may involve improved communication, more frequent meetings between the LG and TxDOT, interim performance evaluations, contract amendments, suspending work, replacement of LG project personnel or subcontractors or terminating the contract. TxDOT's project manager is to document all activities leading up to and through the corrective action with a report to the project file and copies to LG. The district/division should submit questions and noncompliance issues to the appropriate TxDOT division for final determination.

3.4.7.1 Suspension of Work

The TxDOT project manager, after consultation with district/division leadership, may suspend work on a project by notifying the LG in writing, giving the reason for the suspension, corrective actions that must be undertaken by the LG and the conditions required for work to be resumed. The TxDOT project manager will also advise the LG on how to request payment for costs incurred for actual work completed as of the date of the suspension.

3.4.7.2 Termination for Cause

Termination of a contract is the ultimate remedy for a dispute or failure to perform. This action will be considered as a last-resort corrective action by the TxDOT project manager and district/division leadership when other corrective actions have failed to remedy LG compliance with AFA terms and conditions.

As specified in the [Project Accounting](#) section of Chapter 2, if a LG withdraws (or is terminated early) from a project after an AFA has been executed, the LG is responsible for repayment of all project costs, including payment of all direct and indirect project costs incurred to date by TxDOT for the items of work in which the LG is participating.

3.4.8 Supervision and Staffing

3.4.8.1 General

A LG must be suitably equipped and staffed before it can be given authority to manage federal-aid highway projects within its jurisdiction. [23 CFR 635.105](#) requires TxDOT to be suitably equipped and organized to carry out the federal-aid program. Therefore, TxDOT is responsible for project delivery on all types of federal-aid projects. This responsibility is

formalized by the project agreement executed for each federal-aid project. FHWA and TxDOT are the two parties to the agreement.

When a federal-aid project is to be performed by a LG under TxDOT's supervision, all of the following conditions must be met.

- All federal requirements, including those prescribed in [23 CFR Part 635 Subpart A](#), are satisfied on work performed under a contract awarded by a LG.
- Force account work shall be in full compliance with [23 CFR Part 635 Subpart B](#).
- The LG is adequately staffed and suitably equipped to undertake and satisfactorily complete the work.
- The LG shall provide a full-time employee of the agency to be in responsible charge of each federal-aid project, including those employing consultants and other service providers. The requirements for the responsible person in charge (RPIC) are defined in Chapter 2 - Project Initiation of the [LGPP Manual](#) and this [Guide](#).

This arrangement does not relieve TxDOT of overall responsibility for the project. If the LG uses the services of a consulting engineering firm, the services must be procured in compliance with [23 CFR Part 172](#).

3.4.8.2 Required Practices

- The AFA or contract will include the assignment of duties and responsibilities. This will include the designation of the LG's RPIC in writing. Prior to executing the agreement, the LG must assure TxDOT the projects will be staffed to TxDOT's satisfaction. Changes to the assurance or to the project RPIC or project manager must be approved by TxDOT prior to implementation.

3.4.8.3 LG Responsibilities

- The LG must assure TxDOT the project will be staffed to TxDOT's satisfaction.
- The LG must designate in writing a "qualified person" and a RPIC, both of whom meet and fulfill the requirements described in Chapter 2 of the [LGPP Manual](#) and this [Guide](#).
- The LG must notify TxDOT in writing of any changes to the RPIC or "qualified person" during the project.
- The LG must comply with the terms of the agreement with TxDOT.

3.4.8.4 TxDOT District Responsibilities

- The district or division must become familiar with the terms of the LG's agreement with TxDOT in the area of RPIC and staffing commitments.

- The district or division must identify in writing a RPIC who meets the requirements described in [Chapter 2](#) Section 2.4.2 of this Guide.
- The district/division must assure LG personnel assigned to the project fulfill their roles described in [Chapter 2](#) of the LGPP Manual.
- TxDOT must notify the LG in writing of any changes to the RPIC during the project.

3.4.9 Term of AFA

A typical NCAFA terminates upon completion and acceptance of the project, or upon termination by either party in accordance with the terms of the AFA. Currently, a NCAFA requires a termination date of no more than three years after its date of execution. However, the termination date may be extended based on an amendment to the AFA executed by both parties. Once a project is terminated, it cannot be resumed unless a new AFA is executed.

3.5 Application of Contract Elements

3.5.1 Overview

Project management of non-construction projects involves administering the contract elements required by state and federal regulations. Non-construction activities include many of the same elements included in the project development phases for a construction project. However, their application may differ in varying degrees. This section highlights critical contract elements applicable to the non-construction process and refers to sections in other chapters for more information when appropriate.

3.5.2 Contract Amendments

A non-construction project is implemented using the AFA and any sub-agreements between the LG and consultants or service providers. It is common for circumstances to arise requiring changes to the scope of work, deliverables or schedule contained in these agreements. Development of a well-defined and thought out project scope, list of deliverables and schedule during negotiations of the AFA are very beneficial and will significantly reduce or eliminate the need for contract amendments during project execution. The same level of effort and skill should be employed when the LG develops sub-agreements between the LG and consultants or service providers. However, contract amendments are common on projects and involve work added to or deleted from the contracted scope of work, the addition or deletion of deliverables, and/or adjustments in the project schedule. In cases involving changes to the scope of work, the LG must ensure continuity of the scope with the approved STIP, or request a STIP modification. In most instances, if there are no changes in the scope of work or deliverables, contract amendments should not be executed for extensions in time alone.

For a project involving an agreement between a LG and TxDOT, any contract amendments must be executed by both parties prior to any extra work being performed and prior to the expiration of contract time. TxDOT must formally approve any proposed contract amendment between the LG and its consultants or service providers prior to its execution. In most cases, any extra work beginning prior to TxDOT approval and prior to execution of the contract amendment is not eligible for reimbursement. However, when emergency or unusual conditions justify, TxDOT may give advance verbal approval and confirm such approval with formal written approval, as soon as practical.

The LG is responsible for coordinating closely with the TxDOT project manager regarding all contract amendments. [Chapter 7 - Plans, Specifications & Estimates \(PS&E\) Development](#) provides additional guidance and references to federal and state regulations regarding contract amendments (change orders).

3.5.3 Disadvantaged Business Enterprise (DBE), Historically Underutilized Business (HUB) and Small Business Enterprise (SBE)

The federal and state programs for DBEs, HUBs and SBEs have been developed to encourage participation in the professional services and construction industry by a wide variety of firms and, therefore, expand diversity in the industry.

All federal-aid projects are subject to the DBE requirements. The U.S. Department of Transportation (USDOT) must approve each state's DBE program and its annual goals to ensure compliance with all DBE program requirements. FHWA has determined a LG must operate under TxDOT's DBE program even if it has its own program already approved by USDOT. Participation in TxDOT's approved DBE program is accomplished through a provision in the AFA executed by both parties. LGs are encouraged to contact TxDOT's Civil Rights Division (CIV) at (512) 486-5500 for assistance. Guidance may also be found at the [USDOT Office of Small and Disadvantaged Business Utilization](#) (OSDBU) website.

The LG must implement TxDOT's DBE program and coordinate closely with the TxDOT district. This includes TxDOT pre-approval of procurement procedures and sub-agreements and periodic LG reporting requirements. Additional guidance and references to federal and state regulations related to DBE, HUB and SBE programs may be found in Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of this [Guide](#) and the [Manual](#).

3.5.4 Americans with Disabilities Act

3.5.4.1 General

The Americans with Disabilities Act (ADA) is codified at [United States Code \(U.S.C.\) Title 42 Chapter 126](#) and requires equal opportunity for individuals with disabilities. Such opportunity prohibits discrimination against individuals with disabilities in government services, public accommodations, transportation and telecommunications. Further, "reasonable accommodation" must be provided to qualified individuals with disabilities. The [LGPP Manual](#) provides the federal and state requirements related to ADA.

3.5.4.2 Required Practices

- For all non-construction projects with state or federal funding or on the state highway system, the LG must implement appropriate requirements and procedures to ensure there is no discrimination by the LG, its consultants and its service providers against any individual with a disability.

3.5.4.3 LG Responsibilities

- The LG must incorporate all appropriate federal requirements in its contracts with consultants and service providers.
- The LG must provide any required reporting to the TxDOT project manager.

3.5.4.4 TxDOT District Responsibilities

- TxDOT will provide timely review and approval of LG selection procedures and contracts with consultants and service providers while ensuring all appropriate federal requirements are included. TxDOT will provide LG timely notice of all reporting requirements.

3.5.5 Equal Employment Opportunity

3.5.5.1 General

The LG, as a contracting agency, has a responsibility to ensure all federal-aid contractors, subcontractors, vendors and material suppliers do not discriminate in employment and contracting practices based on race, color, religion (in the context of employment), sex, national origin, age or disability.

As a subrecipient of federal funds, the LG has the responsibility to ensure the required equal opportunity requirements are included in federal and federal-aid contracts and the consultants and service providers are in compliance with those requirements under the LG's authority. [The LG has no authority under [Executive Order 11246](#) to enforce compliance with Office of Federal Contract Compliance Programs (OFCCP) requirements.] [Chapter 7 - Plans, Specifications & Estimates \(PS&E\) Development](#) provides additional guidance and references to federal and state regulations related to equal employment opportunity (EEO) practices. The [LGPP Manual](#) provides the federal and state regulations associated with EEO.

3.5.5.2 Required Practices

- All entities will ensure compliance with applicable provisions of the Civil Rights Act. For guidance in compliance matters, CIV may be contacted.
- The state of Texas has made the following assurance in accordance with the Federal-Aid Highway Act of 1968:

“Pursuant to the requirements of Section 22(a) of the Federal-Aid Highway Act of 1968, the State of Texas, desiring to avail itself to the benefits of Chapter 1, Title 23, United States Code, and as a condition to obtaining the approval of the Secretary of Transportation of any projects as provided for in 23 U.S.C. §105(a), hereby gives its assurance that employment in connection with all proposed projects approved on or after August 23, 1968, will be provided without regard to race, color, religion, sex, national origin, age or disability.”

3.5.5.3 LG Responsibilities

- The LG must adopt TxDOT's EEO program or submit an alternate program proposal for TxDOT and FHWA approval.

3.5.5.4 TxDOT District Responsibilities

- The district must ensure the LG complies with all required elements of its TxDOT-approved EEO program.

3.5.6 Lobbying Certification

3.5.6.1 General

Lobbying is the attempt to influence decisions made by officials in the government, including elected officials and those who work for regulatory agencies. [49 CFR Part 20](#) prohibits federal funds from being expended to influence or attempt to influence a federal agency or Congress in connection with the award of any federal contract or grant. This prohibition applies to all recipients, including lower-tier subrecipients of a federal contract or grant. Prior to receiving funds in excess of \$100,000 per contract/grant, the LG must submit to TxDOT a certification that it has not and will not make any prohibited payments for lobbying. This certification is obtained by a provision in the AFA executed by both parties. By signing a contract or subcontract, a consultant or service provider to the LG is certifying it will comply with lobbying restrictions.

The LG certification is to be retained by TxDOT. Likewise, lower-tier certifications are to be retained by the next higher tier (i.e., LG retains its consultants and service providers, etc.).

Any participant who has made or agreed to make payments for lobbying activities using non-federal funds is required to disclose such activities. Payments of non-federal funds to regularly employed officers or employees of the agency or firm are exempt from the disclosure requirement. The federal regulations related to lobbying activities are described in the [LGPP Manual](#).

3.5.6.2 Required Practices

- The lobbying certification must be included in the LG contracts.

3.5.6.3 LG Responsibilities

- The LG must require the lobbying certification in lower-tier contracts.

3.5.6.4 TxDOT District Responsibilities

- For projects with federal funds, the district must ensure the lobbying certification is included in all LG contracts.

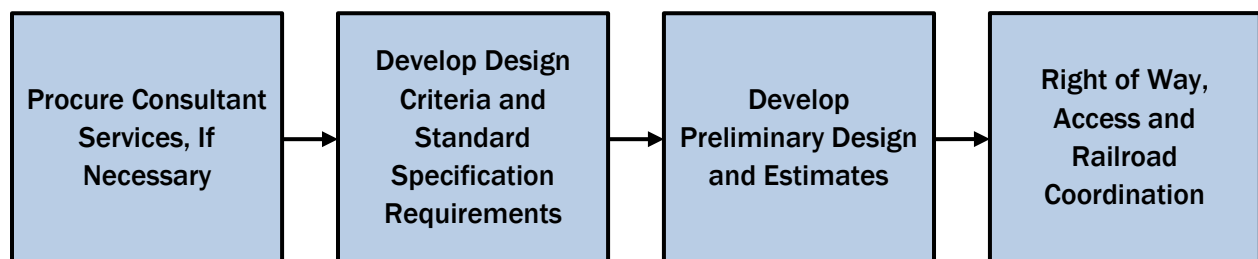
4 Preliminary Engineering and Design

4.1 Introduction

The Preliminary Engineering and Design phase defines the overall project configuration that has elements applicable to both construction and non-construction projects. This is usually the first phase of a local government (LG) project following the execution of the Advance Funding Agreement (AFA) between TxDOT and the LG. This phase includes four elements: state letter of authority (or notice to proceed); procurement of professional services; design schematic and layouts; and early phases of design (also considered to be 30% complete plans, specifications and estimates). Preliminary studies may be performed in this phase, including environmental assessments, surveys, geotechnical studies, hydrologic/hydraulic analyses, traffic studies, etc. This chapter of the Local Government Project Management Guide (LGPM Guide) provides general guidance to the LG for the requirement for a state letter of authority (SLOA), procurement of services and the design of the project components.

The Preliminary Engineering and Design phase starts upon receipt of the federal project authorization and agreement (FPAA)/SLOA or notice to proceed by the LG. This phase includes the following general tasks.

- Procure consultant services (including conformance to Title VI), if necessary
- Kick-off meeting (LG, TxDOT, design consultants)
- Develop design criteria
- Develop preliminary design (30%) and cost estimates
- Identify environmental compliance issues
- Begin utility coordination – right-of-way requirements, utility relocations, etc.
- Coordinate with the Federal Aviation Administration (FAA), if necessary
- Develop standard specifications
- Develop necessary access and railroad agreements



These tasks and related procedures are presented in more detail in this chapter of the LGPM Guide. While the Guide provides general overall guidance to the LG for the requirements for the procurement of services and the design of the project components, details on the policies and regulations governing this phase may be found in [Chapter 4](#) of the companion Local Government Projects Policy Manual (LGPP Manual). A workflow of the Preliminary Engineering and Design phase is presented in more detail in the [LG Project Process Development Flowchart](#).

4.2 State Letter of Authority

As discussed in detail in [Chapter 2](#) of this Guide, the SLOA is a form that must be issued on all projects whether the work is competitively bid or performed by the LG. For non-construction projects, the request from the LG and issuance of a SLOA from TxDOT is required prior to initiation of work on the project. [Chapter 3 - Non-Construction Projects](#) provides more details on the SLOA issued as a notice to proceed on these types of projects.

Three SLOAs are required by TxDOT and issued during the course of a construction transportation project involving state or federal funds. The first SLOA is required prior to preliminary engineering. The second SLOA is required prior to the acquisition of right of way. The third is required prior to initiation of construction.

- The first SLOA is requested and issued after the execution of the AFA and prior to any reimbursable work (by the LG or a consultant). This is usually issued by the appropriate TxDOT district office.
- The second SLOA for construction projects is requested and issued during the development of the project design once the need for right of way or other land acquisition is identified by the LG. This is usually issued by the appropriate TxDOT district office.
- The third SLOA for construction projects must be signed and dated prior to advertisement of the project, or prior to commencement of construction when the LG is doing work by force account.

A FPAA is required in addition to the SLOA for all construction and non-construction projects including federal funds (it is not required for projects that only include local and state funds). The primary function of this form is to obligate federal funds for the project by phases. By completion of the FPAA form, federal funds are authorized through an agreement between the Federal Highway Administration (FHWA) and TxDOT for reimbursement of the approved costs.

TxDOT issues the SLOA in response to a written request from the LG. For projects involving federal funding, TxDOT initiates the SLOA and submits the required project information to FHWA for approval. Once the project is approved as eligible for federal reimbursement by FHWA, TxDOT generates the FPAA and may issue the SLOA to the LG. Depending on the phase of work, the LG must fulfill certain requirements prior to TxDOT issuing the authorization.

4.3 Procurement

4.3.1 Overview

For both construction and non-construction projects being managed by LGs and on the state highway system or include federal or state funding, the LG must obtain approval from TxDOT for its proposed procurement procedure for the selection of a professional services provider, a contractor for a construction or maintenance project, or a materials provider.

In some cases, the LG will need to purchase services or goods not in these categories. The LG should refer to [Chapter 3 - Non-Construction Projects: Procurement of “Other” Goods and Services](#) of this Guide for guidance on these types of procurement procedures.

4.3.2 Donation of Preliminary Engineering Services

When TxDOT self-performs services needed for a federally funded project (mapping, surveying, environmental, preliminary design and final design), federal regulations allow TxDOT to credit the fair market value of donated engineering services to the state share of the project. If the LG proposes to apply its costs paid for consultant services to the non-federal share of a project or program, the LG must provide documentation that it has followed a consultant selection process approved by TxDOT. This requirement applies whether or not the LG incurred the cost for these services before it decided to seek federal funds for construction. The [LGPP Manual](#) provides the laws related to the donation of services.

4.3.3 Professional Service Provider

4.3.3.1 General

The LG may use a professional services provider for program management, construction management, feasibility studies, preliminary engineering, design, engineering, surveying, mapping or architectural services related to a construction project. Professional services providers are defined, in part, as professional engineers, registered architects or registered professional land surveyors in the [Texas Government Code, Chapter 2254, Subchapter A](#), often referred to as the Professional Services Procurement Act. This law requires a two-step, qualifications-based process in selecting and negotiating costs for contracts with professional providers.

The use of a professional service provider by the LG can be an eligible reimbursable cost in accordance with the local participation rules found in [43 TAC §§15.50 et seq.](#) If the LG is seeking reimbursement for project-related professional services, it must be specifically stated in the AFA.

A general overview of the federal requirements for the professional services consultant process is described in the FHWA video “[Hiring a Consultant Using Competitive Negotiation Procedures](#)” available on the [FHWA Federal-aid Essentials for Local Public Agencies](#) website. Selection of a professional services provider must conform to applicable sections of both federal and state law if cost reimbursement is desired by the LG or if the LG desires to have the value of the professional services credited to its share of the project or program.

Federal Requirements Summary

- [23 CFR Part 172](#) – Prescribes policies and procedures for the administration of engineering- and design-related service contracts for which reimbursement with federal funds is requested.
 - Procedures for procurement must be in writing and approved by the TxDOT district;
 - Qualifications-based competitive negotiation is the primary method for procurement of professional services. Price is not to be used as a factor in the analysis and selection of the most qualified firm. The proposal solicitation process shall assure qualified in-state and out-of-state consultants are given a fair opportunity to be considered for award of the contract. Small purchase or non-competitive negotiation procedures may be used in limited situations with TxDOT approval.
 - Basing compensation for professional services on a cost plus a percentage of cost or on a percentage of construction cost is not acceptable.
 - The contracting agency must prepare written procedures for each method of procurement it proposes to utilize.
 - Recipients of federal funds must approve the written procedures and all revisions for their sub recipients. TxDOT is the recipient of federal funds and the LG is the subrecipient.

State Requirements Summary

- [43 TAC, Part 1, Chapter 9, Subchapter C](#) – Establishes TxDOT’s standard procedures for selection and contract management of architectural, professional engineering and land surveying service providers for transportation projects. 43 TAC §§9.30-31, 9.33-37, and 9.39 have application to procurement by LGs when state or federal funds are used on the project.
- [Texas Government Code Chapter 2254, Subchapter A](#) – Provides procurement requirements for professional services by all governmental entities. The entity:
 - Must procure architectural, engineering or land surveying services through a qualifications-based selection process.
 - Must negotiate with the most qualified provider for a fair and reasonable price.
 - Must formally terminate negotiations if a satisfactory contract cannot be negotiated. The entity must then select the next highest qualified provider and attempt to negotiate a contract for a fair and reasonable price.

TxDOT may only grant approval to proposed processes complying with applicable federal and state rules. For design-build projects, the selection procedure requirements can be found in [43 TAC §27.7](#).

Professional service providers (contractors and suppliers) are not allowed to participate in federally funded projects if they are suspended or debarred. The professional service provider is required to certify as to its current eligibility status. Certification is also required of all prospective participants in lower-tier transactions. This includes sub-consultants, material suppliers, vendors, etc. The state of Texas has similar requirements prohibiting contracts with debarred providers. The LG is required to verify its professional service providers and lower-tier providers are not debarred by the federal or state government prior to contract award. Additional information on debarment is provided in the [Debarment Certification section of Chapter 7](#) of the LGPP Manual.

Administrative qualification is a requirement for a professional consultant to do business with TxDOT and with LGs under TxDOT's LG program when the LG anticipates reimbursement for the cost of the consultant. As outlined by TAC Chapter 9, Subchapter C, administrative qualification is a process TxDOT uses to verify that the firm has an indirect cost rate that meets TxDOT requirements. Professional service providers may become administratively qualified by submitting an audit or by self-certification of its incorporated entity or business segment.

Visit TxDOT's website for additional information on [administrative qualification](#). Also, refer to [TAC Chapter 9, Subchapter C](#) for details about the process of administrative qualification.

During its review on projects including federal funding, the TxDOT district will review the LG's proposed consultant contract and request from TxDOT's Civil Rights Division (CIV) a disadvantaged business enterprise (DBE) goal for the professional services contract. The TxDOT district will also confirm the required language from Title VI of the Civil Rights Act of 1964 is included in all procurement documents. The LG should submit its selection procedures to the district as early as possible to not delay the project. To ensure timely approval, the procedure should be submitted to TxDOT at least four weeks prior to initiating the selection process.

Upon selection of the consultant, all proposed LG professional services contracts (for which reimbursement is requested) are to be approved by the TxDOT district prior to their execution by the LGs. Reimbursement may be denied for any professional services contracts executed prior to the LGs obtaining written TxDOT approval. To determine federal and/or state participation in any changes to consultant contracts, any professional services contract amendments or supplemental agreements that individually extend the contract amount or time by 25% or more should also be sent to the local district office for review and approval prior to execution.

The [LGPP Manual](#) provides the federal and state regulations governing the use of professional services for projects with state or federal funding.

4.3.3.2 Required Practices

- For all projects on which reimbursement with state or federal funds is requested for professional services, the LG must do the following.
 - Submit proposed professional services selection process procedures to TxDOT for approval. The process must comply with federal and state law. Local procedures compatible with federal and state laws as referenced above and requirements may be approved.
 - Submit proposed agreements between the LG and selected professional services providers for TxDOT approval prior to execution.
 - Request an assignment of the DBE goal for the project by CIV.
- For projects on which state or federal funds are not requested, the LG must comply with applicable regulations, such as [Texas Government Code §2254](#). In this case, the LG may use a procedure based on the TxDOT consultant selection process in [43 TAC, Part 1, Chapter 9, Subchapter C](#) or use its own procedures.

4.3.3.3 LG Responsibilities

- For design-bid-build projects on which state or federal funds are to be reimbursed for professional services or the value of the professional services are to be counted as part of the local participation, the LG must:
 - develop a selection process in writing, complying with state and federal regulations, and submit it for and obtain TxDOT's approval;
 - follow the approved process when selecting a professional services provider; and
 - submit all proposed prime agreements with professional services providers to TxDOT for approval prior to execution.
- For design-build projects utilizing state or federal funds, or otherwise on the state highway system regardless of funding source, the LG must follow the terms of the applicable project development agreement with TxDOT.
- For projects on the state highway system for which state or federal funds are not requested, the LG should follow the LG's procedures and comply with state procurement laws.

4.3.3.4 TxDOT District Responsibilities

- For all projects with state or federal funds, and all projects on the state highway system, the district must do the following.

- Review the LG’s professional services provider selection process. The district may contact subject matter experts in the districts or divisions for assistance as needed. During this review, the TxDOT district should submit the proposed scope of services to CIV for a DBE goal to be assigned. TxDOT shall grant approval to the proposed procurement process if it complies with all applicable federal and state rules and regulations.
- Review proposed agreements between the LG and the professional services provider to confirm the required language from Title VI of the Civil Rights Act of 1964 is included. TxDOT shall grant approval to the proposed agreements if all of the approved procedures in the consultant selection process were followed and all required federal and state requirements are included in the agreement.

4.3.4 Construction Contractor

4.3.4.1 General

The LG procurement process for advertising, letting and awarding the construction contract must be approved by TxDOT. Consideration for prequalification requirements and post-qualification requirements should be considered early in the design process so the proposed procurement process can be submitted to the TxDOT district for review and approval well in advance of approval of the plans, specifications and estimates (PS&E).

For construction and maintenance projects on the state highway system (with or without state or federal funds), the LG must require contractors to be prequalified by TxDOT. TxDOT qualifies bidders to become eligible to bid or to receive a bid proposal on a construction or maintenance project. The agency has two levels of qualification, both of which require annual requalification.

- [Confidential Questionnaire](#) – This level of qualification (fully prequalified) is normally for construction projects. Bidders must provide an audited financial statement prepared by an independent certified public accountant as outlined in Bulletin No. 2. Financial statements must be less than one year old and must be approved for at least one letting prior to the anniversary date. In addition to the completed questionnaire, bidders must also provide related supporting documents.
- [Bidder’s Questionnaire](#) – This level of qualification is for bidding on projects where the full requirements outlined above are waived – normally smaller construction, routine maintenance, emergency and specialty projects. To satisfy the requirements for bidding on a waived project, bidders must provide a completed Bidder’s Questionnaire and related supporting documents. The proposal request form denotes projects eligible for this level of qualification with a “W.”

For projects off the state highway system that do not include state funds (but may include federal or local funds), the LG may require or not require contractors to be prequalified by TxDOT. Any prequalification or qualification criteria in addition to TxDOT’s must be approved by TxDOT before becoming part of the bid documents. Waived projects may include, but are

not limited to, specialty projects (e.g. sidewalks, hike and bike trails, streetscape, traffic and others), maintenance projects or roadway projects of \$500,000 or less. Waived specialty and maintenance projects have no dollar limit and may exceed the \$500,000 limit. The LG must contact the district early in the project to determine if prequalification is necessary.

4.3.4.2 Qualification of Bidders

TxDOT determines each contractor's bidding capacity (the maximum dollar value a contractor may have under contract with TxDOT at any given time). A contractor may request and receive bidding proposals for upcoming projects for which the engineer's estimate does not exceed bidding capacity, less any other TxDOT work currently under contract.

Once TxDOT qualifies a bidder, the approval is valid for one year from the date of the financial statement. Bidder's Questionnaires are valid for one year from the date of receipt by TxDOT. TxDOT grants a 90-day grace period for the preparation of a new qualification statement. All qualification statements must be received at least 10 days prior to the date of the project letting.

4.3.5 Materials Providers

TxDOT reviews and approves products and materials from various manufacturers and producers for use on its construction contracts. The LG will be required to use these approved sources if the project is on the state highway system and may require approved sources if the project is off the state highway system but involves state or federal funding. TxDOT's [Material Producer List web page](#) provides files with the following information:

- products;
- materials;
- producers;
- manufacturers;
- producer Codes; and,
- additional information as the subject warrants.

Any requirements assigned to the LG for using TxDOT-approved materials providers are to be specified in the AFA. Any requirements for using TxDOT-approved materials should be considered by the LG early in the design process. Other requirements for materials are described in [Chapter 7](#) of this Guide.

4.4 General Design Guidelines

4.4.1 Overview

The Preliminary Engineering and Design phase of both construction and non-construction projects includes the development of design guidelines that include requirements specified by state and federal statutes. This phase also includes the development of design layouts for non-construction projects and design schematics for roadway projects depicting the geometrics proposed for the project.

This section of the Guide describes general design guidelines that should be addressed in the early stages of the project design. The LG is strongly encouraged to submit preliminary design concepts for TxDOT's review and approval, and to follow the principals of the design concept conference as outlined in the TxDOT [Project Development Process Manual](#) and described later in this section. The LG should also submit a listing of the design guidelines to be utilized for construction projects and for non-construction projects, where applicable. These actions will facilitate an agreement to the basic project features by all concerned parties and will ensure the LG is utilizing the appropriate design criteria for the project. The early coordination between the LG and TxDOT will prevent misunderstandings regarding project requirements and helps the LG avoid the risk of costly re-design later in the project development. The submission of final engineering studies, surveys, geometric layouts and plans requires signing, sealing and dating by a licensed professional engineer, surveyor or architect in the state of Texas.

4.4.2 Environmental Permits, Issues and Commitments (EPIC)

4.4.2.1 General

Preliminary design must include an identification of the environmental issues and commitments that must be considered during the project development. [Chapter 5 - Environmental Compliance](#) contains guidelines for the LG to use to ensure environmental issues are addressed appropriately during the project. Environmental approvals are often based on commitments included in a determination of a categorical exclusion (CE), environmental assessment (EA) or environmental impact statement (EIS). These commitments are listed on the [EPIC sheet](#) and must be carried through the project development, design and construction stages to assure full compliance with state and federal environmental regulations. The LGPP Manual describes the state and federal laws and statutes related to environmental compliance. More information pertaining to TxDOT's environmental policies is provided in Chapter 5 - Environmental Compliance of the [LGPP Manual](#) and this [Guide](#).

4.4.2.2 Required Practices

- For all projects on the state highway system or with state or federal funds, the LG must:
 - coordinate with the TxDOT district to determine the environmental compliance issues associated with the project and address all permitting requirements appropriately (see [Chapter 5 - Environmental Compliance](#));

- include EPIC sheets in the contract plans using the format in the latest [standard plan sheet](#) available at TxDOT's website.
- For all projects off the state highway system with no state or federal funds, the LG must follow through on environmental commitments. The LG may use its own process for assuring commitments are implemented.

4.4.2.3 LG Responsibilities

- For all projects on the state highway system or with state or federal funds, the LG must:
 - for design-bid-build projects:
 - coordinate with the TxDOT district to determine the environmental compliance issues associated with the project and address all permitting requirements appropriately (see [Chapter 5 - Environmental Compliance](#)); and
 - include the EPIC sheet in PS&E using [standard plan sheet](#) from TxDOT's website;
 - for design-build projects:
 - coordinate with the TxDOT district to determine the environmental compliance issues associated with the project and address all permitting requirements appropriately (see [Chapter 5 - Environmental Compliance](#)); and
 - describe how environmental commitments are to be implemented in the request for final design and construction approval.
- For all projects off the state highway system with no state or federal funds, the LG must assure the environmental commitments are implemented using the LG's process.

4.4.2.4 TxDOT District Responsibilities

- For all projects on the state highway system or with state or federal funds, the district must coordinate with the LG to ensure all environmental commitments and permitting requirements are appropriately addressed (see [Chapter 5 - Environmental Compliance](#)) and assure the EPIC sheets are included in PS&E.

4.4.3 Design Concept Conference

4.4.3.1 General

The design concept conference is a meeting of key individuals to establish fundamental aspects of a project. The conference facilitates agreement to basic project features by concerned parties and enhances relationships between those parties. A conference should be held as early in the project development process as feasible and should include all parties who provide information for the project and have the ability to influence the project development schedule. TxDOT's practices and procedures for design conferences are

available in TxDOT's Project Development Process Manual. The manual has a downloadable link to the design summary report (DSR) to aid in conducting the conference and documenting agreements reached at the conference.

4.4.3.2 Required Practices

- For all design-bid-build projects with state or federal funds, and all design-bid-build projects on the state highway system regardless of funding source, the LG is strongly encouraged to follow the principles of the design concept conference as outlined in TxDOT's [Project Development Process Manual](#) to facilitate agreement to basic project features by all concerned parties before significant resources are expended on detailed design. This is particularly important for those projects where the LG is required to submit preliminary design information to TxDOT at 30% design completion and submit final plans to TxDOT for approval before beginning construction. Not having early TxDOT concurrence may lengthen the final review and approval process.
- Participants should use the DSR format to formally document agreements reached at the conference. TxDOT's [Project Development Process Manual](#) has a downloadable link to the DSR.
- There is no requirement to conduct a design concept conference for design-build projects.

4.4.3.3 LG Responsibilities

- For all design-bid-build projects with state or federal funds, or on the state highway system regardless of funding source, the LG should conduct a design concept conference.
- The LG must prepare a DSR, or similar document, to document the conference results and submit it to the TxDOT district.

4.4.3.4 TxDOT District Responsibilities

- For projects with a design concept conference, the TxDOT district must send staff with appropriate expertise to represent TxDOT at the design concept conference.
- The district must review the DSR and send an approval to the LG.

4.4.4 Coordination with FAA

4.4.4.1 General

The FAA is responsible for assuring the safety of air traffic. One major concern is interference with navigational airspace, such as possible encroachments in take-off and landing patterns. The LG is responsible for identifying potential conflicts with navigational airspace early in the project and for coordinating project design with the FAA. Documentation of satisfactory

coordination with FAA must be provided before a project may be authorized for construction. The [LGPP Manual](#) provides the federal regulations related to coordination with the FAA.

4.4.4.2 Required Practices

- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the LG must determine if the proposed project requires coordination with FAA. If coordination is required, the LG must prepare [FAA Form 7460-1](#) and submit to FAA for action. Additional information and instructions are available in TxDOT's [PS&E Preparation Manual](#).
- The LG must mark and light obstructions according to the standards in the latest [FAA Advisory Circular 70/7460-1K](#).
- Forms and advisory circulars are available at the [FAA website](#).

4.4.4.3 LG Responsibilities

- For all projects with state or federal funds, and all projects on the state highway system regardless of the funding source, the LG must:
 - complete [FAA Form 7460-1](#) as required and submit it to FAA;
 - mark and light obstructions as shown in [FAA Advisory Circular 70/7040-1K](#);
 - for design-bid-build:
 - determine the proximity of the project to the airport using a U.S. Geological Survey map; and
 - complete the airport coordination section of the DSR;
 - for design-build, include a provision for FAA coordination in the request for proposals (RFPs).

4.4.4.4 TxDOT District Responsibilities

- For all projects with state or federal funds, and all projects on the state highway system regardless of the funding source, the district must assure:
 - objects are lighted and marked as required by [FAA Advisory Circular 70/7460-1K](#); and
 - FAA coordination is complete before TxDOT takes action on the LG's request to authorize the next phase of work.

4.4.5 Accessibility Guidelines and Compliance

State and federal statutes protect the rights of individuals with disabilities, and the LG must consider the requirements of these statutes during the project development and design. For transportation purposes, the [ADA Accessibility Guidelines](#) (ADAAG) and the [Texas Accessibility Standards](#) (TAS) provide the majority of criteria on which compliance is based. The U.S. Departments of Justice and Transportation are responsible for enforcement of the ADA. The Texas Department of Licensing and Regulation (TDLR) is the regulatory agency charged with monitoring compliance with the TAS.

All projects, regardless of cost, must comply with the provisions of ADAAG and TAS. Public meetings, hearings and project websites must be accessible and ensure effective communication with members of the public with disabilities. The LG is responsible for submitting plans and specifications for review and approval to TDLR or a registered accessibility specialist for public right-of-way projects with pedestrian elements estimated to cost at least \$50,000, building or facilities projects and hike/bike trail projects. More information on the application of accessibility requirements during the design phase is provided in [Chapter 7 - Plans, Specifications & Estimates \(PS&E\) Development](#). The requirements of the ADA and TAS for the inspection and approval of completed work are covered in [Chapter 9 - Construction](#).

4.4.6 Design Surveys

4.4.6.1 General

Professional land surveys are often required by LGs or TxDOT as part of the design process to identify site conditions and limitations for the project. Surveying may be required for both construction and non-construction projects but is most commonly a part of construction projects. Requirements for design surveys are discussed below, while requirements for right-of-way surveys are discussed in [Chapter 6 - Right of Way and Utilities](#).

4.4.6.2 Required Practices

- *LG kick-off meeting* – The LG Project Manager schedules a kick-off meeting with the survey and engineering consultants prior to initiation of work. The agenda of this meeting will include project scope issues, such as project limits, accuracy expectations, project deliverables and any other issues that may affect the project manager’s goals and expectations.
- *TxDOT* – If TxDOT is developing the project for the LG, TxDOT will use its customary design survey procedures. TxDOT procedures are designed to control the methods and manner of performing the work for successful execution of the aerial mapping, GPS or traditional ground survey. These procedures ensure a consistent product delivered to TxDOT regardless of the individual firm actually accomplishing the surveying project.

- LG – If the LG is performing the design survey for its own project off the state highway system, the LG may follow its own standard survey procedures. These procedures must satisfy the applicable federal and state laws and rules requiring the work to be done in a reasonable, allowable and sufficient manner to assure proper expenditure of federal and state funds. If the LG is performing the design survey for a project on the state highway system, the LG will need to satisfy the requirements of the [TxDOT Survey Manual](#) and the district in which the project is located, as well as satisfy applicable regulations under federal and state funding programs.

4.4.7 Landscape Development

4.4.7.1 General

The transportation system is a network of highways, trails, railroads, airports, transmission lines, pipelines, canals and waterways set in the landscape. The goal of the transportation designer is to fit the highway or other facility into the adjacent landscape in a way that is complementary to and enhances the existing landscape. Achieving this goal requires consideration of natural, ecological, aesthetic, economic and social influences related to the landscape. The [LGPP Manual](#) provides the state and federal regulations related to landscape development.

4.4.7.2 Required Practices

- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the LG:
 - must assure the landscape plans are developed under the supervision of a person holding a certificate of registration as a landscape architect issued by the Texas Board of Architectural Examiners,
 - all landscape plans and specifications must be sealed by a landscape architect registered in the state of Texas;
 - must submit samples of all architectural treatments for sound and retaining walls to TxDOT for approval before incorporating them into the project;
 - is encouraged to consider guidelines for common structural elements in TxDOT's [Landscape and Aesthetics Design Manual](#); and
 - is encouraged to follow the concepts in TxDOT's [Green Ribbon Master Plan](#), if applicable.

4.4.7.3 LG Responsibilities

- For projects with state or federal funds, or on the state highway system regardless of funding source, the LG must:

- assure landscape development plans are prepared under supervision of a landscape architect licensed in Texas;
- assure landscape plans and specifications are sealed by a landscape architect licensed by the state of Texas;
- consider recommendations for design treatments in TxDOT’s [Landscape and Aesthetics Design Manual](#); and
- include specifications requiring submission of samples to TxDOT for design-bid-build and design-build projects.

4.4.7.4 TxDOT District Responsibilities

- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the district must:
 - provide a [Green Ribbon Master Plan](#) to the LG, if applicable;
 - review the landscape plans and specifications for compliance with TxDOT policy;
 - review and approve samples of the architectural treatments submitted by the LG; and
 - request assistance from TxDOT’s Design (DES) Division as appropriate.

4.4.8 Storm Water Pollution Prevention Plans

4.4.8.1 General

Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming and other activities. As authorized by the Clean Water Act, the [National Pollutant Discharge Elimination System](#) (NPDES) permit program controls water pollution by regulating point sources discharging pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes connected to a municipal system, use a septic system or do not have a surface discharge do not need a NPDES permit; however, industrial, municipal and other facilities must obtain permits if their discharges go directly to surface waters. To obtain a NPDES permit, the LG must submit a storm water pollution prevention plan (SW3P). A SW3P is required for all projects that may discharge stormwater into waters of the United States. These will primarily be construction-type projects but may be other types of projects as well. The LG should coordinate early with the TxDOT district to determine if a permit is required. The [LGPP Manual](#) describes the state and federal regulations related to stormwater permits.

4.4.8.2 Required Practices

- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the LG must develop a SW3P in conformance with TxDOT's [Stormwater Management Program](#). Checklists are available from TxDOT's [Environmental Affairs \(ENV\) Division's Stormwater Program web page](#). Environmental Protection Agency templates are available at its [website](#).
- Item 506 of TxDOT's [Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges](#) (2024 edition) is specifically written for TxDOT-managed construction projects. If the LG desires to adopt these specifications, the LG may use SP506-001L, or submit a special provision for approval that modifies Item 506 to lessen the training requirements for LG and contractor personnel, so long as the requirements of [Texas Pollutant Discharge Elimination System \(TPDES\) General Permit TXR150000](#), effective March 5, 2023, are met.

4.4.8.3 LG Responsibilities

- For design-bid-build and design-build projects with state or federal funds, or on the state highway system regardless of funding source, the LG must prepare a SW3P in conformance with TxDOT's [Stormwater Management Program](#).

4.4.8.4 TxDOT District Responsibilities

- For projects where TxDOT must approve the PS&E, the district should review the SW3P for conformance with the [Stormwater Management Program](#).

4.5 Preliminary Engineering Design for Construction

4.5.1 Overview

This section describes the elements required for preliminary design of construction projects, including highways, roads, bridges and alternative transportation-related projects and discusses a delegation of authority by FHWA to TxDOT in administration of projects with FHWA funds. As discussed in TxDOT's [Roadway Design Manual](#), different design guidelines apply to the design of new construction (4R), rehabilitation (3R) and restoration (2R) projects. The LG must work with the TxDOT district to determine which guidelines apply before beginning design.

In general, schematic design will be required for most construction projects. This normally involves a scaled plan view geometric layout showing horizontal alignment with associated profile grade alignment for roadways and other linear projects. In addition, for roadway projects on the state highway system, typical sections, pavement designs and bridge layouts are to be completed during the schematic layout portion of preliminary design. For roadway projects not on the state highway system and other linear projects, the TxDOT district may define what elements are necessary for schematic design review. These requirements should be defined in the DSR or other documentation from the design concept conference. Specialty projects, such as building projects, may require something other than a schematic. For example, projects involving structures may involve scaled plan views, elevations, typical wall details and floor plans. For specialty projects, the LG must work with the TxDOT district to determine the requirements of the design submittals.

The following external publications in their current edition may be used for reference in conjunction with TxDOT's [Roadway Design Manual](#).

- [Standard Specifications for Highway Bridges, AASHTO](#)
- [Roadside Design Guide, AASHTO](#)
- [Highway Capacity Manual, Transportation Research Board \(TRB\)](#)
- [Guide for the Development of Bicycle Facilities, AASHTO](#)
- [Texas Accessibility Standards \(TAS\), TDLR](#)
- [ADA Accessibility Guidelines, U.S. Access Board](#)
- [Texas Manual on Uniform Traffic Control Devices, TxDOT](#)
- [American Institute of Architects guidelines](#)

If the LG does not use TxDOT's or other approved guidelines, the LG's guidelines must be submitted to TxDOT for review and approval. It is important to note, however, the established guidelines are the minimum acceptable guidelines. Variations in elements of approved guidelines for road projects may be permitted, but they must be submitted to TxDOT with a

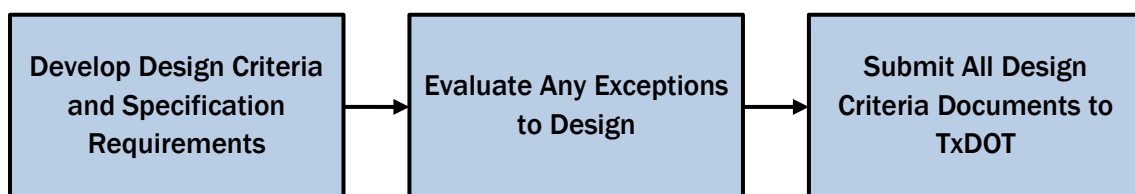
request for a design exception/waiver as detailed in the [Roadway Design Manual](#). In addition, TxDOT's [Pavement Manual](#) and [Bridge Project Development Manual](#) provide valuable information in performing design activities. Roadway and bridge projects may present circumstances where the design guidelines cannot be met for one or more design elements in the proposed project's preliminary design. The LG must clearly identify the design guidelines for use on the project and, where TxDOT guidelines have not been adopted, the LG must secure prior written approval from TxDOT.

Ideally, these guidelines and code sources are identified in the AFA. To avoid delaying project development, the LG must coordinate and submit a written request for a design exception, as early as it is identified, to TxDOT staff for review and approval. The LG is encouraged to coordinate with TxDOT district staff during preliminary design to ensure all design considerations are met.

4.5.2 Design Criteria

4.5.2.1 General

“Design criteria” is defined as those basic elements in Chapter 2 of TxDOT's [Roadway Design Manual](#) (i.e. horizontal and vertical alignment, sight distance) and those elements depending on scope of work and functional classification in Chapters 3-8 of the [Roadway Design Manual](#) (i.e. design speed, lane width, structure width). They include both the “controlling” and “non-controlling” criteria for which design exceptions, waivers and variances must be considered as listed in Chapter 1, Section 2 of TxDOT's [Roadway Design Manual](#). The [LGPP Manual](#) provides the federal and state regulations related to using acceptable design criteria for construction projects. The flowchart below provides a general overview of the process required to complete this step.



4.5.2.2 Required Practices

- For all roadway projects with state or federal funds, and all projects on the state highway system regardless of funding source, the LG must develop the project using design criteria in TxDOT's [Roadway Design Manual](#). Functional classification must be based on TxDOT's [functional classification map](#). Traffic data for selection of design criteria will be developed in accordance with the [Design Level of Service section](#) of this chapter.

- AASHTO's [Guide for the Development of Bicycle Facilities](#) is to be used for design of bicycle lanes and bicycle paths. Preferred design criteria are to be used unless written approval is obtained from the TxDOT district to use minimum criteria in specific instances within a project. TxDOT's [Roadway Design Manual](#) provides additional information. Sidewalk and pedestrian element design criteria in the Roadway Design Manual are to be followed unless written approval is obtained from the TxDOT district.
- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, where state statutes allow the LG to suggest alternate design criteria, the LG must submit the criteria with a written justification to TxDOT for approval. This approval should be secured early in the project development process to avoid having to make significant changes. The [Design Concept Conference section](#) of this chapter discusses submission of a DSR or similar report as the appropriate mechanism for the LG and TxDOT district to document acceptable design criteria.
- For highway projects off the state system with no state or federal funds, and non-highway projects off the state system that may include state or federal funds, the LG may select design criteria in accordance with its own practice. Use of recognized design criteria from industry groups such as AASHTO is recommended.

4.5.2.3 LG Responsibilities

- For all design-bid-build projects with state or federal funds, or on the state highway system regardless of funding source, the LG must:
 - select design criteria to be used based on TxDOT functional classification and applicable traffic;
 - include design criteria on the DSR and submit to TxDOT; and
 - request TxDOT approval of any proposed changes to approved design criteria.
- The LG must list appropriate design criteria for design-build projects in the RFPs.

4.5.2.4 TxDOT District Responsibilities

- For all projects with state or federal funds, and projects on the state highway system regardless of funding source, the district will assure the LG selects the proper functional classification and uses acceptable traffic data.
- The district will review and approve the DSR (or substantially similar form submitted by the LG) for proper design criteria and may contact DES for assistance as needed.
- For projects with a pass-through financing arrangement, the district approves the project design criteria but may contact DES for assistance as needed.

4.5.3 Exceptions to Design Criteria

4.5.3.1 General

The selection of design criteria is covered in the previous section above. All reasonable efforts must be made to produce a project meeting the established design criteria. However, there may be occasions when one or more design elements do not meet requirements. Exceptions may be granted as an engineering decision if properly documented and supported.

There are three situations where formal approval must be given: design exceptions; design waivers; and design variances.

- Exceptions cover deviation from specific “controlling” criteria established by federal regulation.
- Waivers cover deviation from “non-controlling” criteria, those values listed as specific, numerical criteria but not one of the listed “controlling” criteria.
- Variances cover deviations from TAS.

TDLR is the approval authority for variances. The approval authority for exceptions and waivers is established by policy and by agreement between the LG and TxDOT. The [LGPP Manual](#) provides the federal and state laws and codes regulating exceptions to the design criteria. If a project is located on the national highway system or is otherwise federally funded, please refer to FHWA’s [Mitigation Strategies for Design Exceptions - May 2014](#) for additional guidance.

4.5.3.2 Required Practices

- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the LG must request TxDOT approval of exceptions to “controlling criteria” as outlined in TxDOT’s [Roadway Design Manual](#). “Controlling criteria” are those elements listed for the different categories of construction projects (i.e., 4R, 3R, 2R or special facilities) in the Roadway Design Manual.
- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the LG must request TxDOT approval of exceptions to criteria in a “non-controlling category” as outlined in TxDOT’s Roadway Design Manual. These exceptions are referred to as “design waivers” in the Roadway Design Manual.
- For bikeway projects on system or off system with state or federal funds, the LG must request TxDOT approval of an exception if preferred requirements for a bicycle path, lane or shared-use lane in AASHTO’s [Guide for the Development of Bicycle Facilities](#) cannot be met.

- For projects where the LG must request TxDOT approval, documentation must be submitted in the Request for Design Exception section of the [PS&E Transmittal Data form \(Form 1002\)](#) available from TxDOT.
- For all projects where the design guidelines specified in TAS are not met, the LG must submit a design variance to TDLR for approval.

4.5.3.3 LG Responsibilities

- For all design-bid-build and design-build projects with state or federal funds, or on the state highway system regardless of funding source, the LG must:
 - prepare justification for exceptions to “controlling and non-controlling” criteria and submit a [PS&E Transmittal Data form \(Form 1002\)](#) to TxDOT for approval;
 - prepare justification for exceptions when preferred requirements in AASHTO’s [Guide for the Development of Bicycle Facilities](#) are not met and submit to TxDOT for approval;
 - prepare justification for exceptions to TAS criteria and submit to TDLR for approval; and
 - include approved design exceptions on Form 1002 (or a substantially similar form).

4.5.3.4 TxDOT District Responsibilities

- For projects where the LG must request TxDOT approval of a design exception or waiver, the district must review the Request for Design Exception documentation for completeness and reasonableness. The district may submit the design exceptions to DES, Traffic Safety (TRF) Division, Bridge Division or other TxDOT division for review with the district’s recommendation for action. The district approves requests for design waivers.

4.5.4 Design Level of Service

4.5.4.1 General

Level of service (LOS) is a measure of traffic flow and congestion. As defined in TRB’s [Highway Capacity Manual](#), LOS is a qualitative measure describing operational conditions within a traffic stream – generally described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. LOS is designated in letter format – from LOS A (free flow) to LOS F (forced flow). A LOS analysis determines the LOS for a particular facility usually for three time periods. These periods include existing, construction year and design year (usually 20 years past the construction year) conditions. Three levels of analysis include planning, design and operational analysis. A planning LOS analysis involves little detail and is used for preliminary facility sizing. A design LOS analysis is more detailed and tends to be used for sizing a facility given specific traffic and roadway conditions. An operational LOS analysis is typically used to assess current

conditions so improvements can be developed to improve flow. An operational LOS analysis is usually the most detailed.

Selecting a design LOS is a conscientious attempt to reasonably accommodate traffic in the design year. Most designs are based on LOS C (stable flow) or LOS D (bordering on unstable flow). The [LGPP Manual](#) provides the state and federal laws related to the LOS.

4.5.4.2 Required Practices

- For new construction and reconstruction projects with state or federal funds, and all projects on the state highway system, the LG must select a design LOS conforming to the ranges listed in TxDOT's [Roadway Design Manual](#).
- Projected traffic volumes for projects on the state highway system will be furnished by TxDOT's Transportation Planning and Programming (TPP) Division.
- Projected traffic volumes for projects off the state highway system will be furnished by the LG.
- Projected traffic volumes will be based on a design year that is 20 years from completion of construction unless otherwise directed or approved by TxDOT.
- Design LOS only applies to 4R as defined in TxDOT's [Roadway Design Manual](#) and does not apply to 3R, 2R, preventive maintenance or special projects.

4.5.4.3 LG Responsibilities

- For all design-bid-build and design-build projects with state or federal funds, or on the state highway system regardless of funding source, the LG must:
 - select design LOS from TxDOT's [Roadway Design Manual](#) for new construction or reconstruction projects; and
 - develop capacity analysis using TRB's [Highway Capacity Manual](#) and submit to TxDOT for concurrence.

4.5.4.4 TxDOT District Responsibilities

- For all projects with state or federal funds, and all projects on the state highway system, the district must:
 - request projected traffic data from TPP and furnish it to the LG;
 - review the LG's selected LOS for compliance with TxDOT's [Roadway Design Manual](#);
 - review the LG's capacity analysis for conformance with TRB's [Highway Capacity Manual](#); and

- request assistance from TRF or DES as appropriate; TRF and DES review and approval is not required.

4.5.5 Geometric Schematic

4.5.5.1 General

The geometric schematic is a drawing of a computed alignment of the preferred alternate of a roadway or other linear facility. For a roadway, it shows features such as location of interchanges, ramps, and the number and arrangement of lanes. The schematic also conveys information to the public during meetings and hearings. TxDOT lists elements of the schematic in its [Roadway Design Manual](#). The [LGPP Manual](#) describes the state regulations relating to the development of the geometric schematic.

4.5.5.2 Required Practices

- For design-bid-build projects on the state highway system or involving state or federal funds, the LG:
 - must prepare and submit a geometric schematic for new location or added capacity projects, and for projects requiring control of access, an EA or an EIS; the schematic must contain all information required by TxDOT's [Roadway Design Manual](#); and
 - may develop schematics or other design information for other projects and gain TxDOT concurrence to facilitate final plan review and approval.
- For design-build projects, the LG is encouraged to prepare and submit a geometric schematic to TxDOT for approval.

4.5.5.3 LG Responsibilities

- The LG must develop a geometric schematic and submit it to TxDOT for:
 - design-bid-build projects on the state highway system or with state or federal funds, if the project involves a new location or added capacity, or if the project requires control of access, an EA or an EIS;
 - design-bid-build projects off the state highway system with or without state or federal funds as defined in the AFA or as agreed by the LG and TxDOT district at the design concept conference; and
 - design-build projects, when specified by the agreement.

4.5.5.4 TxDOT District Responsibilities

- For projects requiring submission of a geometric schematic, the district must review the schematic for conformance with approved design criteria and other TxDOT standards. The district has authority to approve the geometric schematic but may request assistance from DES and other TxDOT divisions as needed.

4.5.6 Highway Access Management

4.5.6.1 General

An “access connection” is a facility for entry or exit such as a driveway, street, road or highway connecting to the highways under the jurisdiction of a public entity. “Access control” is the enforcement of specified authorization rules based on positive identification of the users and the systems they are permitted to access. Access management must be considered during the design of transportation projects on the state or federal highway systems.

Proper access management assists in protecting the substantial public investment in transportation by preserving roadway efficiency and enhancing traffic safety, thus reducing the need for expensive improvements. Access management can also significantly reduce traffic accidents, personal injury and property damage. TxDOT policy and procedures for managing access to the state highway system is contained in TxDOT’s [Access Management Manual](#). Additional information may be found in TxDOT’s [Roadway Design Manual](#). The related federal and state regulations are provided in the [LGPP Manual](#).

4.5.6.2 Required Practices

- For routes on the interstate highway system, the LG must develop justification for new or revised access connections in conformance with the requirements of TxDOT’s [Roadway Design Manual](#) and submit to TxDOT for coordination with FHWA.
- For routes on the state highway system, the LG must:
 - obtain access connection permits from TxDOT unless a municipality has assumed that authority; and
 - assure all designs include access control as provided in TxDOT’s [Roadway Design Manual](#) and [Access Management Manual](#), such as the purchase of access rights at freeway ramp terminals, and the number and locations of access points.
- Municipalities may request authority to use their own access management guidelines in lieu of TxDOT’s to determine the appropriate access connection locations within that municipal jurisdiction, except where TxDOT controls the access.
- A municipality or metropolitan planning authority (MPO) may develop an access management plan for a specified state highway segment in coordination with TxDOT.

4.5.6.3 LG Responsibilities

- For all projects on the state highway system regardless of funding source, the LG must:
 - develop justification for new or revised access to the interstate highway system and transmit to TxDOT for coordination with FHWA;
 - obtain access connection permits from TxDOT unless the LG has authority;
 - assure design complies with TxDOT's [Roadway Design Manual](#) and [Access Management Manual](#) (or LG access management guidelines if they have been approved for use);
 - submit a request to use the LG access management guidelines on the state highway system, if desired; and
 - submit the approved permits to TxDOT.

4.5.6.4 TxDOT District Responsibilities

- For routes on the interstate highway system, the district must review the LG's access justification for completeness and transmit to DES with a recommendation for approval and coordination with FHWA.
- For routes on the state highway system, the district must:
 - issue access permits unless a municipality requests authority to issue permits within its municipal jurisdiction;
 - approve and document deviations from TxDOT's [Access Management Manual](#) for TxDOT-issued permits;
 - review the municipality's proposed permitting procedures for compliance with TxDOT's [Access Management Manual](#) or transfer the access permitting function to a municipality within the district's jurisdiction;
 - coordinate with a municipality or MPO in the development of an access management plan for a specific highway segment;
 - retain a copy of all approved access permits, including those approved by a municipality; and
 - periodically assesses a municipality's compliance with TxDOT's [Access Management Manual](#), including requirements to coordinate deviations.

4.5.7 Value Engineering

4.5.7.1 General

Value engineering (VE) is the systematic application of recognized techniques identifying the function of a product or service, establishing a value for that function and providing the necessary function reliability at the least overall cost. VE studies are required on federally funded projects on the federal-aid system with an estimated total project cost greater than \$50 million and on bridge projects with an estimated total project cost greater than \$40 million. This requirement must be fulfilled before construction is authorized. The LG is encouraged to conduct the VE study soon after completion of the geometric schematic (approximately 30% design stage) to facilitate economical incorporation of all VE recommendations into the PS&E. The [LGPP Manual](#) lists the federal regulations related to the VE.

4.5.7.2 Required Practices

- For federally funded projects on the federal-aid system with an estimated total project cost greater than \$50 million and all federally funded bridge projects with a estimated total project cost greater than \$40 million, the LG must conduct a VE study before requesting authorization to advertise for receipt of bids or to release RFPs.
- Federal code requires that states establish and document policies, procedures, and contract provisions that identify when Value Engineering Change Proposals (VECP) may be used. TxDOT does not have VECP policies or procedures in place and, therefore, VECP cannot be used on projects.
- Refer to TxDOT's [Project Development Process Manual](#) for guidance on VE.

4.5.7.3 LG Responsibilities

- For all federally funded projects on routes functionally classified above a rural minor collector, the LG must conduct a VE study prior to requesting to advertise for receipt of bids (or prior to releasing of RFPs for design-build projects) if the estimated total project cost is greater than \$50 million, or greater than \$40 million for bridge projects.
- VECP language cannot be incorporated nor included in bid documents.

4.5.7.4 TxDOT District Responsibilities

- For projects requiring a VE study, the district shall assist the LG as requested and coordinate any issues with DES.
- Ensure VECP language is not incorporated nor included in bid documents.

4.5.8 Right-of-Way, Utility and Railroad Certification

4.5.8.1 General

Issues involving the need for right-of-way acquisition, railroad coordination and utility relocations are identified during the Preliminary Design phase and usually are involved with construction projects. Ideally, all right of way is acquired, utilities adjusted and all necessary coordination with affected railroads is completed before construction begins. This gives the contractor unrestricted access to the project and minimizes the potential for delays during construction.

On occasion, it is prudent to start construction prior to having all right-of-way and utility issues resolved. In this case, the status of acquisition, coordination and adjustment must be presented to TxDOT before TxDOT issues authorization to proceed with construction. The design schematic and the PS&E documents will include a reasonable date of when acquisition, coordination and adjustment are anticipated. It is important these dates be accurate, as the anticipated dates become part of the construction contract and delays can lead to contractor claims and additional project costs. Detailed information regarding right-of-way acquisition, railroad coordination and utility relocation is contained in [Chapter 6 - Right of Way and Utilities](#) and [Chapter 7 - Plans Specifications & Estimate \(PS&E\) Development](#) of this Guide.

Since the timing for obtaining railroad permits can be quite extensive, it is not recommended that any project proceed to advertisement for letting without all required railroad permits in hand. Federal-aid projects require a statement, often referred to as the railroad certification, from TxDOT and the LG confirming the appropriate railroad coordination has taken place. This statement is required for all federal-aid highway construction projects, including projects not involving a railroad.

Encroachments are features within the right of way that are privately owned. Encroachments may remain if approved in writing, otherwise they must be removed before construction is completed and the work accepted.

Buy America provisions apply to utility relocations on all federal-aid or on-system state projects. This topic is described in Chapter 7 of the [LGPP Manual](#) and this [Guide](#). The corresponding Right-of-Way, Utility and Railroad Certification section of the [LGPP Manual](#) also provides the specific state and federal regulations related to right-of-way, railroad and utility coordination by the LG and TxDOT.

4.5.8.2 Required Practices

- For all projects, the LG is responsible for acquiring right of way, coordinating with the appropriate railroad and arranging for utility adjustments unless this work is assigned to TxDOT in the AFA.
- For design-bid-build projects with state or federal funds and other projects where TxDOT must approve the final PS&E, the LG must:
 - show approximate utility locations on the plan and profile sheets in accordance with TxDOT's [PS&E Preparation Manual](#);

- show existing and proposed right-of-way lines, including control of access lines;
- provide right-of-way, relocation assistance, utility, railroad and encroachment certifications with the PS&E submission as outlined in TxDOT's [PS&E Preparation Manual](#):
 - the certifications must be signed by an authorized representative of the LG; and
 - certification templates are available from TxDOT;
- develop special provisions advising potential bidders of the status of right-of-way, utilities and railroad work, including anticipated clearance and availability dates matching those in the signed certification; and
- assure TxDOT that any additional cost, including extensions of contract time, caused by delays in acquiring right of way, coordinating with railroads or adjusting utilities beyond the certification dates will be borne by the LG.
- For design-build projects where TxDOT must authorize the LG to proceed with final design and construction, the LG must provide the following certifications to TxDOT.
 - Either all right-of-way, utility and railroad work has been completed or all necessary arrangements have been made for the completion of right of way, utility and railroad work.
 - If right of way, utility or railroad services are to be included as part of the design-builder's scope of work, the RFPs document must include:
 - a statement concerning scope and current status of the required services; and
 - a statement requiring compliance with the [Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970](#), as amended, and [23 CFR Part 710](#).

4.5.8.3 LG Responsibilities

- For projects with state or federal funds, or on the state highway system regardless of funding source, the LG must:
 - for design-bid-build:
 - assure the successful contractor can reasonably prosecute work considering right-of-way, utility and railroad work to be accomplished during construction;
 - include outstanding right-of-way, utility and railroad work in PS&E; and
 - submit applicable certifications with final PS&E.

- for design-build projects, submit applicable certifications with request to proceed with final design and construction.

4.5.8.4 TxDOT District Responsibilities

- For projects where TxDOT either approves the final PS&E or authorizes the LG to proceed to final design and construction, the district must review the LG's certifications for reasonableness before approving the PS&E. Reasonableness includes:
 - right-of-way acquisition, as well as railroad and utility coordination, complies with the applicable policies and procedures;
 - anticipated acquisition, coordination or adjustment dates are achievable for the remaining extent of acquisition or adjustment;
 - the contractor is able to reasonably prosecute work given the potential coordination issues; and
 - the PS&E describes the right-of-way, utility and railroad situation in a manner the potential bidders can understand and prepare a bid.
- For projects with a pass-through financing arrangement, the district approves the PS&E and certifications but may contact the appropriate division for assistance as needed.

5 Environmental Compliance

5.1 Introduction

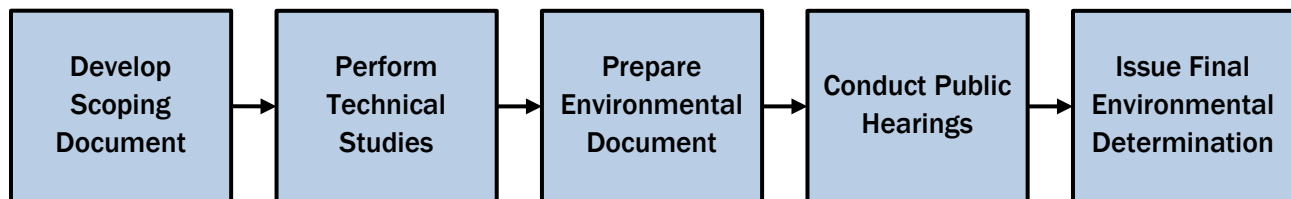
The Environmental Compliance phase of any transportation project occurs throughout project development and execution, and runs concurrently with all the other phases. Environmental compliance issues should be identified early in the project by the local government (LG) in cooperation with the Texas Department of Transportation (TxDOT) district's environmental coordinator since requirements may impact project initiation tasks, including the details included in the Advance Funding Agreement (AFA). State and federal regulations may require a project to be included in the [Statewide Transportation Improvement Program](#) (STIP), Metropolitan Transportation Plan (MTP) and/or Transportation Improvement Program (TIP). These requirements need to be identified by the LG through coordination with the TxDOT district's environmental coordinator. In many projects, the preliminary design (30% complete design) is performed concurrently with the Environmental Compliance phase. The Environmental Compliance phase must be completed prior to right-of-way acquisition or utility accommodation.

There are many aspects to the environmental compliance process for a TxDOT project. The environmental documentation defined within the [TxDOT Environmental Toolkit](#) web page supersedes any description of the documentation requirements discussed in the Guide. Public involvement is a critical element of the environmental process, and the [Environmental Handbook for Public Involvement](#) should be utilized by the LG to ensure all appropriate and required measures are met. All federal-aid transportation projects and projects on the state highway system must have an environmental clearance in the form of a categorical exclusion (CE) determination, environmental assessment (EA) and finding of no significant impact (FONSI), or environmental impact statement (EIS) and record of decision (ROD) prior to final design, letting and construction. For a Federal Highway Administration (FHWA) project, TxDOT has been assigned responsibility for compliance with the National Environmental Policy Act (NEPA) and other environmental laws under a 2014 memorandum of understanding with FHWA, which was renewed in 2019 (except for projects that cross the state boundary). This means that TxDOT is authorized to issue the CE determination, FONSI or ROD on FHWA's behalf.

The following general tasks are typically completed during the Environmental Compliance phase of a project and are also presented in the flowchart below.

- Develop project design concept
 - Draft environmental scoping agreement
 - Project coordination meeting (TxDOT and LG)
 - Finalize scoping document
- Prepare EA or EIS, if required
 - Perform technical studies and reports

- Complete public outreach requirements
- Prepare draft environmental documents
- Conduct public involvement activities, including public hearing, if required
- Prepare CE, if required
 - Perform technical studies and reports
 - Prepare CE findings
 - Conduct public involvement activities, including public hearing, if required
- Complete final documents, including environmental permits, issues and commitments (EPICs)
- Receive the state letter of authority (SLOA) and the federal project authorization and agreement (FPAA), if required
- Conduct meeting to discuss right-of-way acquisitions/utility relocations (if any) with LG, TxDOT [district and Right of Way (ROW) Division]



This chapter provides guidance for the LG and TxDOT district to properly perform project scoping, to prepare a CE or other appropriate environmental document, and to identify and comply with EPICs for construction of transportation projects. Additional information related to overall project initiation, preliminary engineering and other transportation project development and implementation tasks are discussed in detail in other chapters of the Local Government Project Management Guide (LGPM Guide) and the companion [Local Government Projects Policy Manual \(LGPP Manual\)](#). A workflow of the Environmental Compliance phase is presented in more detail in the [LG Project Process Development Flowchart](#).

TxDOT’s Environmental Affairs Division (ENV) offers training courses on the TxDOT Environmental Process for Local Governments. For more information visit ENV’s [training web page](#) .

5.2 General Environmental Compliance Requirements

5.2.1 Overview

Environmental compliance responsibilities vary depending on the scope of the project and the potential social, economic and environmental impacts. The process for environmental review and approval is available at TxDOT's [NEPA and Project Development Toolkit](#) web page.

The legal requirements for highway projects are different from the requirements for other transportation projects. The legal requirements for highway projects will vary based upon the project's designation of the official "project sponsor." The official project sponsor is the entity that accepts responsibility not only for preparing the environmental review document, but also performing related tasks, including preparing the project scope. Highway projects being developed by a formally designated LG project sponsor are different from the requirements for a project being developed by a LG that has not been formally designated as a LG project sponsor. LG-sponsored highway projects have requirements that differ from TxDOT-sponsored highway projects. Other conditions also affect legal requirements.

If the LG is going to perform (by its own forces or by consultants) the environmental phase of a transportation project, it is recommended the LG have early coordination with the TxDOT district's environmental coordinator (due to the complexity of environmental regulations and the wide range of potential requirements that may apply to any individual LG project). The district will request assistance from ENV, as necessary, to properly identify environmental requirements for a proposed project. The LG and TxDOT will work collaboratively to develop a project scope representing a mutual understanding of applicable requirements, expectations for completed environmental work, and a plan and schedule for addressing environmental requirements for the project. An environmental department delegate will be assigned to each project and be responsible for certain approvals during project activities. The district office is considered the "department delegate" for CEs, and ENV is the delegate for EAs/EISs. This role is discussed in more detail in [Section 5.2.4.5](#) of this Guide.

5.2.2 Environmental Permits, Issues and Commitments (EPIC)

5.2.2.1 General

Environmental concerns should be identified early in the project so any mitigation may be addressed and accurately reflected in the design documents. These may include sole source aquifer coordination, waters of the U.S. permits, stormwater permits, traffic noise abatement, threatened or endangered species coordination, archeological and historical resource coordination, or any mitigation or other environmental commitments associated with the project. Environmental permits, issues and commitments (EPICs) are any permits, issues, coordination commitments or mitigation obligations necessary to address, offset or compensate for social, economic or environmental impacts of a project. EPICs must be specified in the construction documents (EPIC form) and will be monitored for compliance during the project and for a defined period of time after construction completion. The state and federal laws related to the EPICs are presented in the [LGPP Manual](#). A digital version of the standard EPIC form is available on TxDOT's [publication web page](#).

5.2.2.2 Required Practices

- All projects will comply with TxDOT's policies to make sound decisions based on a balanced consideration of transportation needs and of social, economic and environmental impacts of proposed transportation improvements.
- Environmental concerns that could delay the project should be identified and resolved early. This will allow any required mitigation to be properly addressed and accurately reflected in the design documents.

5.2.2.3 LG Responsibilities

- The LG must include EPICs in the bid documents.
- The LG must evaluate environmental commitments before approving changes to a contract.
- For design-build projects, the LG must include environmental commitments in the request for proposals (RFPs).

5.2.2.4 TxDOT District Responsibilities

- All projects must have environmental clearance from TxDOT before starting construction. For projects requiring TxDOT approval of bid documents or RFPs, the district must ensure all EPICs are included at the appropriate phase in the project.
 - Design-bid-build – Environmental clearance is required prior to letting.
 - Design-build – Environmental clearance is required before construction. RFPs may be issued before the environmental clearance is received if specifically approved by FHWA.
- For projects requiring TxDOT approval of change orders, the district must check the environmental documentation to ensure the changed work is part of the approved environmental decision.
- The district should submit questions and non-compliance issues to ENV for final determination.

5.2.3 State Letter of Authority

As discussed in detail in [Chapter 2 - Project Initiation](#), the SLOA is a form that must be issued on all projects performed by the LG or its consultants. The first SLOA is required prior to initiating work on the project. The second SLOA is required prior to the acquisition of right of way or the accommodation of utilities. The third is required prior to advertising for bids for construction.

In general, the first SLOA (during the Preliminary Engineering phase) typically provides authorization for initiation of environmental compliance activities. The need for right-of-way or

other land acquisition is identified by the LG during the development of the project design in the Preliminary Engineering and Design phase and is included in the 30% complete design documents. Once the Environmental Compliance phase is essentially complete, the second SLOA is requested by the LG and issued by TxDOT. A FPAA is required in addition to the SLOA for all federally funded projects. The completion of the Environmental Compliance phase and the subsequent issuance of the second SLOA/FPAA allow the LG to proceed with right-of-way acquisition and utility accommodations.

5.2.4 National Environmental Policy Act

5.2.4.1 General

Public works projects are subject to state and federal laws, statutes, regulations and guidance. Environmental compliance for projects with federal funding occurs under the umbrella of NEPA. NEPA requires that an agency must take a “hard look” at the environmental impacts and document the extent to which a project will or will not have a significant environmental impact. Environmental compliance under state jurisdiction in Texas follows a process similar to NEPA requirements and procedures. TxDOT environmental compliance programs are administered by ENV, which provides an [Environmental Compliance Toolkits](#) web page. The state and federal regulations related to NEPA are outlined in the [LGPP Manual](#).

5.2.4.2 Required Practices

- The process for complying with NEPA can be complex for a number of reasons.
 - A project requiring no documentation for the purposes of compliance with NEPA could require documentation under other state and federal authorities.
 - At TxDOT’s request, FHWA “assigned” the responsibility for compliance with NEPA and other federal environmental laws to TxDOT under the terms of a memorandum of understanding dated Dec. 16, 2014 (NEPA Assignment MOU), which was renewed in 2019 (except for projects that cross the state boundary). Program authority comes from [23 U.S.C. §327](#). With NEPA assignment, TxDOT assumes legal responsibility and liability for environmental documents and decisions. FHWA retains approval authority over:
 - international projects requiring a new presidential permit or modification of an existing presidential permit;
 - projects crossing state boundaries;
 - multimodal projects; and,
 - LG projects on tribal lands, federal lands or federal parks (23 U.S.C. §§[202](#), [203](#) and [204](#)).

- Changes in project design or right-of-way/easement requirements after NEPA approval generally require the project to be re-evaluated for environmental impacts.
- As required by the terms of paragraphs 3.2.1, 3.2.5 and 3.2.6 of the NEPA Assignment MOU, TxDOT and all LGs preparing NEPA documents and CEs must place the disclaimer language as described below on:
 - the cover page of each environmental assessment, finding of no significant impact, environmental impact statement and record of decision prepared under the authority granted by the NEPA Assignment MOU;
 - the cover page of each biological evaluation or assessment, historic properties or cultural resources report, section 4(f) evaluation or other analyses prepared under the authority granted by the NEPA Assignment MOU; and
 - on materials prepared as part of agency outreach and public involvement procedures.
 - TxDOT shall insert the following disclaimer language verbatim as provided below:

“The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 9, 2019, and executed by FHWA and TxDOT.”
- FHWA regulations ([23 CFR 450.220](#)) implementing 23 U.S.C. §§[134-135](#) require projects to be selected from the STIP.
- The LG must determine and document that the project is in and consistent with the project description in the STIP/TIP/MTP, or determine and document the inclusion in the STIP/TIP/MTP is not needed.
- Under [42 U.S.C. §4332](#) and [23 CFR 771.109\(a\)](#), some projects may require FHWA environmental approval (now assigned to TxDOT) and FHWA engineering approval, even if the projects do not involve FHWA funding. These projects include:
 - new access to an interstate highway;
 - changes in existing access to or existing air space across an interstate highway;
 - changes to operations of federally funded high-occupancy vehicle (HOV) lanes (e.g., removing HOV, changing to high-occupancy toll, changing occupancy requirements, etc.); and

- temporary or permanent changes to real highway property, including highway air space (e.g., cases where federal funds were used to fund preliminary engineering, right of way and/or construction, and where federal funds are used to control right of way to preserve sufficient space for safety and expansion).
- Compliance responsibilities of the LG and TxDOT vary depending on issues of funding, operational project control and the involvement of one or more federal agencies.
- Changes in project design or right-of-way and easement requirements after NEPA approval generally require the project to be re-evaluated for environmental impacts and often require the LG to document it has coordinated the changes with resource agencies, TxDOT and potentially FHWA.
- A design-build firm cannot produce a NEPA decision document or participate in a NEPA decision. However, a design-build firm can perform environmental studies underlying a NEPA decision document and may prepare an environmental review document on behalf of the project sponsor.
- It is likely TxDOT's processes and procedures for environmental compliance will change, even over the duration of a single project. In addition, the authorities frequently change, and regulatory agencies change their procedures, requirements and guidance on an ongoing basis. TxDOT continues to develop a series of performance standards for environmental documents, reports and other submittals. These standards also will change on an ongoing basis to reflect changes in authorities and lessons learned in ongoing application. As this guidance is being written, TxDOT is making fundamental changes in its procedures for handling environmental compliance. It is likely these changes will be ongoing for a number of years.
- Collaborative development of a project scope and continued communication throughout the project development process are intended to mitigate the complexity of environmental compliance. The scoping process identifies environmental requirements and expectations as they apply to the specific project. Effective communication during project development should identify changing circumstances and allow development of strategies to address changes as efficiently as possible.

5.2.4.3 LG Responsibilities

- The LG contacts the district to initiate development of a project scope required under state statute and rules. Refer to TxDOT guidance on [NEPA and Project Development](#).
- The LG must document a scope for the project. Scope development is a collaborative effort between the LG, the TxDOT district's environmental coordinator and TxDOT's approval authority, and includes:

- determining the level of NEPA compliance required for the project (e.g., EIS, EA or CE)
 - if the project requires an EIS, the LG must work with the district to set up a scoping and coordination plan complying with [23 U.S.C. §139](#);
- determining the federal and state authorities that apply as a result of the project’s specific characteristics and the specific content of the LG’s agreement with TxDOT;
- determining the studies and public involvement activities that should be performed, and establishing mutual expectations among the LG, district and department delegate regarding the content of studies and public involvement; and
- scheduling all tasks.
- The LG must maintain communication with the district throughout project development.
- The LG must initiate a project scope amendment if there is a material change affecting environmental requirements for the project. The LG must also initiate a re-evaluation if changes may affect the environmental classification.
- The LG will perform environmental studies and submit all NEPA documents, technical reports and other deliverables to TxDOT. Different AFA and other agreements between TxDOT and LGs may assign different environmental responsibilities to LGs. Therefore, the LG must be aware that its responsibilities may vary from project to project and should verify its responsibilities by reviewing the project funding agreement and through discussions with the district’s environmental coordinator. The LG must also determine from the project scope and its funding agreement with TxDOT, the environmental compliance requirements, if any, that TxDOT will perform.
- The LG will ensure the NEPA Assignment MOU disclaimer language is properly included on:
 - the cover page of each environmental assessment, finding of no significant impact, environmental impact statement and record of decision prepared under the authority granted by the NEPA Assignment MOU;
 - the cover page of each biological evaluation or assessment, historic properties or cultural resources report, section 4(f) evaluation or other analyses prepared under the authority granted by the NEPA Assignment MOU; and
 - on materials prepared as part of agency outreach and public involvement procedures.
- The LG will ensure all environmental studies, reports, documents and public involvement performed or obtained by the LG meet TxDOT performance standards and satisfy the requirements of the project scope.

- The LG must perform quality assurance/quality control oversight over environmental studies, reports, documents and public involvement throughout the environmental process. The purpose of TxDOT's review and approval of documents is to determine sufficiency and compliance, not to perform quality control for the LG or its consultants.
- The LG must submit all technical reports and studies to TxDOT for approval. Although designated LG sponsors are not required to do so, TxDOT strongly recommends submitting them ahead of environmental documents and requests for determinations of CE. This practice helps prevent delays in final approval by identifying errors early.
- The LG must obtain right of entry for environmental studies to be conducted.
- If the LG is officially approved as the project sponsor, the LG must create and maintain a legally sufficient project file documenting the project complies with all federal, state, and local laws and regulations. If the LG is not officially approved as the project sponsor, the LG must provide TxDOT with all materials needed for a legally sufficient project file.
- If the project involves a lead federal agency other than FHWA, the LG is responsible for meeting that agency's NEPA requirements.

5.2.4.4 TxDOT District Responsibilities

- The district will serve as the LG's point of contact for environmental submissions and facilitate the LG's interactions with TxDOT (and FHWA projects for which FHWA retains environmental approval).
- The district will collaborate with the LG during scoping. For projects requiring an EIS or EA, the district initiates formation of an EIS or EA core team as required under TxDOT environmental procedures.
- The district will maintain communication among the LG, district and department delegate throughout project development. The district serves as the conduit of information between the LG and the department delegate.
- If the project meets the criteria for a CE, the district must document the LG has performed all studies, public involvement and coordination required under state and federal statutes and regulations.
- The district should assist the LG in defining reliable scopes of work for environmental services.
- The district must ensure the NEPA Assignment MOU disclaimer language is properly included on:

- the cover page of each environmental assessment, finding of no significant impact, environmental impact statement and record of decision prepared under the authority granted by the NEPA Assignment MOU;
 - the cover page of each biological evaluation or assessment, historic properties or cultural resources report, section 4(f) evaluation or other analyses prepared under the authority granted by the NEPA Assignment MOU; and
 - on materials prepared as part of agency outreach and public involvement procedures.
- The district must perform review and approval on applicable environmental studies, reports, CE documentation and public involvement. When ENV is the TxDOT delegate, the district and ENV will perform concurrent reviews to avoid exceeding legislative review deadlines.
 - The district must arrange for performance of environmental tasks and coordination assigned to TxDOT under the AFA or relevant authorities.
 - The district will maintain a legally sufficient project file that functions as NEPA administrative record and documents completion of all state and federal environmental requirements for all projects for which TxDOT is the sponsor and will maintain TxDOT's portion of the project file for all projects for which the LG is officially approved as the project sponsor.

5.2.4.5 TxDOT Environmental Department Delegate Responsibilities

- The department delegate will collaborate with and maintain communication with the LG and district during scoping.
- The department delegate will approve all technical reports, studies, public involvement and coordination.
- The department delegate will make the environmental decision (CE determination, FONSI or ROD).

5.3 Specific Environmental Compliance Requirements

5.3.1 Overview

This section includes information regarding archeological, biological, water and historic resources, as well as information related to social issues and other legal requirements. Additional resources for environmental requirements during the project development process may be found at TxDOT's [Environmental Compliance Toolkits](#) web page. Additional guidance can be found at the [FHWA Environmental Review Toolkit](#) web page.

5.3.2 Air Quality

5.3.2.1 General

LGs must comply with the [Clean Air Act](#) (CAA), NEPA and the [Federal-Aid Highways code](#) for potential project effects on air quality. CAA prohibits federal agencies from providing funding or approving any activity not conforming to an applicable State Implementation Plan (SIP). An environmental decision cannot be made for any project in a nonattainment and maintenance area subject to transportation conformity until project level transportation conformity is demonstrated. Incorporating the LG project into the STIP, TIP or MTP early in project development will help prevent project delays. The [LGPP Manual](#) provides references for the state and federal regulations related to air quality.

5.3.2.2 Required Practices

- Compliance responsibilities vary depending on the scope of the project and the potential social, economic and environmental impacts. Although federal jurisdictions do not automatically trigger compliance with state laws and regulations, projects subject to state air quality laws and regulations will also be covered by federal air quality laws and regulations.
- The state regulations listed above apply only to TxDOT. The LG may have local coordination or other requirements that do not apply to TxDOT.
- The LG and the TxDOT district should collaborate early to determine the requirements for air quality compliance.

5.3.2.3 LG Responsibilities

- The LG should contact the district to determine the requirements for air quality compliance.
- The LG's compliance activities for air quality shall incorporate the current TxDOT [Environmental Handbook for Air Quality](#) and associated [Air Quality Toolkit](#). The LG must complete and document all air quality analyses, including technical reports as applicable.

- Air quality standards and the Air Quality Toolkit may change rapidly. The LG should consult with its district's environmental coordinator (who will consult with ENV, as necessary) to confirm that any recent developments are covered by current guidance.
- The LG must document whether the project meets the conformity requirements specified by [40 CFR 93.100 et seq.](#) and the related requirements of [23 U.S.C. §109\(j\)](#), and FHWA or TxDOT must issue a conformity determination, when applicable. The LG shall submit the [Conformity Report in the Air Quality Toolkit](#) to the district's environmental coordinator for processing at least 60 days prior to an anticipated environmental decision.
- A LG using congestion management and air quality (CMAQ) program funds must document that the project contributes to the attainment of a national ambient air quality standard in a nonattainment area or contributes to maintenance of a national ambient air quality standard in a maintenance area.
- The LG must determine and document that the project complies with air quality provisions under the MOU addressed under 43 TAC Chapter 2, Subchapter I. LG projects not covered by the MOU may need to be coordinated with TCEQ by the LG.

5.3.2.4 TxDOT District Responsibilities

- The district must facilitate LG interactions with air quality subject matter experts.

5.3.3 Biological Resources

5.3.3.1 General

A series of laws and regulations require LGs to identify and, if necessary, mitigate impacts to biological resources, including but not limited to endangered and threatened species, critical habitat and farmland. Violations of the [Endangered Species Act](#) and [Migratory Bird Treaty Act](#) are especially serious and can result in work stoppages and large fines. Because of the complexity of biological issues and the range of regulatory requirements, early coordination between the LG and the TxDOT district is essential. The [LGPP Manual](#) provides a listing of the applicable state and federal regulations.

5.3.3.2 Required Practices

- Early coordination between the LG and the TxDOT district is essential to identify requirements for impacts to biological resources.
- For projects with Texas Parks and Wildlife Department (TPWD) jurisdiction, the LG shall coordinate through TxDOT. Designated LG sponsors may coordinate directly with TPWD.
- Changes in project design or right-of-way and easement requirements require the project to be re-evaluated for biological impacts and often require documentation that the changes were coordinated through the regulatory process.

5.3.3.3 LG Responsibilities

- The LG must identify and, if necessary, mitigate impacts to biological resources, including but not limited to endangered and threatened species, critical habitat and farmland.
- The LG must contact the TxDOT district to determine the project requirements related to impacts on biological resources.
- If the project involves a lead federal agency other than FHWA, the LG is responsible for meeting that agency's requirements.

5.3.3.4 TxDOT District Responsibilities

- The district must facilitate the LG's interactions with biological subject matter experts.
- The district must facilitate the LG's interactions with ENV when required for formal or informal consultation with the U.S. Fish and Wildlife Service.

5.3.4 Water Resources

5.3.4.1 General

Roadway construction projects typically transect or abut a number of waterbodies (streams, rivers, lakes, bays, wetlands) and, therefore, typically involve a number of related water quality issues. Water quality related permits and authorizations for construction activities are usually required. Some authorizations may be general permits or nationwide permits that can be obtained in a very short period of time. An example is the [Texas Pollutant Discharge Elimination System](#) (TPDES) stormwater permit for construction activities, an authorization that can be obtained in as little as 24 hours. Other authorizations, such as an individual U.S. Army Corps of Engineers (USACE) permit or an individual TPDES wastewater discharge permit, may require a year or more to obtain. Therefore, it is important for the LG to identify water resource issues very early in the planning phase of a project and to allow ample time to obtain water resource authorizations. Violations of permit and other requirements are serious and can result in work stoppages and large fines. The [LGPP Manual](#) contains a description of the state and federal regulations that may apply to a project.

5.3.4.2 Required Practices

- Compliance responsibilities of the LG and TxDOT vary depending on issues of funding, land ownership, geographic location, operational project control and the involvement of one or more federal agencies.
- Changes in project design or right-of-way and easement requirements require the project to be re-evaluated for water impacts and often require documentation that the changes were coordinated through the regulatory process.

5.3.4.3 LG Responsibilities

- If wetland mitigation is required, the LG should consult TxDOT to determine whether the LG can use TxDOT's mitigation banks.
- For projects that may impact a stream, the LG should contact TxDOT to determine whether the stream is classified as a navigable water and whether the project will need a U.S. Coast Guard section 10 permit. When required, the LG shall obtain a U.S. Coast Guard permit.
- If the project will result in the discharge of any pollutant (including stormwater associated with construction and industrial activities) into waters of the United States, the LG shall coordinate with TCEQ to obtain a TPDES permit. The LG shall prepare and implement a storm water pollution prevention plan (SWPPP). If the project is within the boundaries of a Municipal Separate Storm Sewer System (MS4), the LG shall coordinate MS4 requirements with TCEQ.
- The LG must determine whether the project will impact wetlands. If wetland impacts will occur, the LG must evaluate the applicable requirements to address [Executive Order 11990](#), and document whether or not there are practical alternatives to construction in wetlands. See Section 12 of the [Environmental Handbook for Water Resources](#) for further discussion.
- If the project will encroach onto a floodplain, the LG shall identify and coordinate with the local floodplain administrator to determine and prevent any long- and short-term adverse impacts associated with the modification of floodplains. If the project is in the Trinity River in Dallas County or Tarrant County, the LG shall obtain a Trinity River Corridor Development Certificate.
- If the project will cross or encroach upon the floodplains of the United States' section of the U.S. International Boundary and Water Commission (USIBWC) flood control projects and right of way on the Rio Grande, the LG shall coordinate with USIBWC to obtain a license or permit.
- If the project will involve dredging and/or discharging fill material into jurisdictional waters of the United States, including jurisdictional wetlands, the LG shall obtain a permit from USACE. The LG may submit permit applications directly to USACE. The permit application must clearly state the project is a TxDOT project. All subsequent communication with USACE regarding the status of the application must be coordinated by TxDOT.
- If the project is in Orange, Jefferson, Chambers, Harris, Galveston, Brazoria, Matagorda, Jackson, Calhoun, Victoria, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kennedy, Willacy or Cameron counties, the LG must consult with the Coastal Coordination Council to determine the project's consistency with the Coastal Management Plan.

- The LG must consult with the National Park Service for projects along the Rio Grande in parts of Brewster, Terrell and Val Verde counties designated as a National Wild and Scenic River.
- If the project involves a lead federal agency other than FHWA, the LG is responsible for meeting that agency's requirements regarding water resources.
- The LG will provide TxDOT with copies of all technical reports generated and permits obtained by the LG.

5.3.4.4 TxDOT District Responsibilities

- The district must facilitate LG interactions with water subject matter experts.

5.3.5 Archeological Resources

5.3.5.1 General

An archeological resource is a site characterized by the remains of past human occupation. Although it may be associated with a building, structure, object or district, an archeological resource is treated differently than historic resources. For the purposes of this discussion, "archeological resource" does not include historic resources, which are covered in another section. Protected archeological resources are called "archeological historic properties." An archeological historic property is an archeological resource listed in or eligible for inclusion in the National Register of Historic Places or eligible for designation as a State Archeological Landmark. Except under unusual circumstances, the archeological resource must be at least 50 years old at the time construction begins. A cemetery with graves greater than 50 years old must be treated as an archeological resource. State and federal laws regulate the impacts of transportation projects on archeological resources, so the LG must coordinate with the TxDOT district during the scoping of project, which may impact these sites. The [LGPP Manual](#) provides a discussion of the applicable state and federal laws and policies.

5.3.5.2 Required Practices

- Archeological compliance responsibilities of the LG and TxDOT vary depending on project sponsorship, issues of funding, land ownership and the involvement of one or more federal agencies

- [Section 106 of the National Historic Preservation Act](#) and [36 CFR Part 800](#) apply to all projects involving funding, licensing, permitting or approval by a lead federal agency, including agencies other than FHWA. 36 CFR Part 800 identifies a consultation process to be followed by federal agencies. The [Programmatic Agreement on Section 106](#) governs compliance with Section 106 and 36 CFR Part 800 when FHWA funds or approves projects. Deviation from the Section 106 process or anticipatory demolition of an archeological resource or archeological historic property prior to completion of the Section 106 process is grounds for litigation and may require the lead federal agency to withhold funding, licensing, permitting or approval of the project. FHWA generally is the lead federal agency with jurisdiction over Section 106. On rare occasions, another lead federal agency may have or share jurisdiction.
- The [Antiquities Code](#) applies to projects on land owned or controlled by the state or a political subdivision of the state. Funding source has no effect on Antiquities Code jurisdiction. The Antiquities Code requires the person primarily responsible for the project to give the Texas Historical Commission (THC) prior notice before beginning construction. Deviation from the Antiquities Code process is grounds for litigation. Unpermitted demolition of an archeological resource or historic property is grounds for prosecution as a misdemeanor offense.
- The project is evaluated to determine whether archeological studies are needed. If field studies are needed, they are performed under an antiquities permit issued by THC.
- Removal of human remains from incorporated, informal, abandoned and unknown cemeteries requires compliance with the [Texas Health and Safety Code](#). Depending on the circumstances, this coordination could involve the Office of the Attorney General and district courts. Removal of human remains also may require coordination with THC if the cemetery or any burials are 50 or more years old.
- The [Native American Graves Protection and Repatriation Act](#) (NAGPRA) requires that during planning for projects on federal or tribal land, tribes must be consulted regarding Native American graves that may be encountered before or during construction. For any LG receiving federal money for any purpose (including purposes unrelated to the construction project), NAGPRA establishes procedures for dealing with human burials recovered as a result of the project. This applies regardless of land ownership or project funding.
- For projects with FHWA jurisdiction, ENV or, in some cases, FHWA performs all coordination with THC, Native American tribes and other consulting parties defined in federal regulations. Any U.S. Department of Transportation (USDOT) agency action that will result in a use of land from an archeological site that warrants preservation in place and that is an adverse effect must also meet the requirements of the [Section 4\(f\) of the US DOT Act of 1966, 49 U.S.C. §303](#) [see discussion on Section 4(f) Properties in subsequent section].

- For projects without FHWA jurisdiction and for which the LG serves as the official project sponsor, the LG coordinates directly with THC and any other involved lead federal agency.
- Changes in project design or right-of-way and easement requirements often require the project to be re-evaluated for archeological impacts and require documentation that the changes were coordinated through the regulatory process.
- Although it is rare, an archeological resource eligible for the National Register of Historic Places or for designation as a State Archeological Landmark may be protected under Section 4(f) of [49 U.S.C. §303](#) and [Texas Parks and Wildlife Code, Chapter 26](#), Protection of Public Parks and Recreational Lands. See the [Taking or Use of Public Land Interests \[Section 4\(f\) Property\]](#) section below in this Guide.

5.3.5.3 LG Responsibilities

As noted previously, LG responsibilities will vary depending on several different factors.

- For cases where the TxDOT is the official project sponsor, the LG's roles and responsibilities are limited to those activities identified under the terms of its AFA and during subsequent scoping. Typically, the LG would be responsible for the production of any required technical studies and submission of those studies to TxDOT.
- For cases where the LG is the official project sponsor, a table should be provided to the department delegate describing the roles and responsibilities of the LG and TxDOT for various circumstances. This table may be referenced on the [Environmental Compliance Toolkits](#) web page.
- Under many circumstances, the LG will perform required environmental studies and submit technical reports and other deliverables to TxDOT. Different AFA and other agreements between TxDOT and LGs may assign different environmental responsibilities to LGs. Therefore, the LG must be aware that its responsibilities may vary from project to project, and the LG should verify its responsibilities with the district. The LG must determine from its agreement with TxDOT the environmental compliance requirements, if any, that TxDOT will perform.
- When reports and studies must be coordinated through TxDOT, the LG will ensure all environmental studies, reports, documents and public involvement performed or obtained by the LG for submission to TxDOT meet TxDOT performance standards. The LG should consult with TxDOT to identify current standards. The LG must perform quality assurance/quality control oversight of environmental studies, reports, documents and public involvement.
- When reports and studies for field investigations must be coordinated through TxDOT, the LG is also responsible for coordinating through TxDOT to obtain any required antiquities permits from THC. The permit application must also meet TxDOT performance standards. The LG should consult with TxDOT to identify current standards.

- If the LG discovers human remains, the LG must go through the [Texas Health and Safety Code](#) process to disinter those remains. The procedures vary depending on the type of cemetery from where the remains would be disinterred. In some cases, the procedures require advance notification of multiple parties and a district court order. For remains potentially older than 50 years, the LG must also coordinate with THC.
- If the LG recovers Native American human remains, the LG must go through the NAGPRA process to determine whether a federally recognized Native American tribe is entitled to assume control over disposition of the human remains and associated funerary objects. There are planning requirements for projects on tribal or federally owned lands. Planning requirements must be identified in consultation with the federal or tribal agencies.

5.3.5.4 TxDOT District Responsibilities

- The district must provide the LG with information regarding FHWA and TxDOT expectations for successful environmental compliance. The district should assist the LG in defining reliable scopes of work for environmental services.
- The district will facilitate the LG's interactions with TxDOT archeological subject matter experts and FHWA.
- The district must coordinate with FHWA and ENV for necessary tribal consultation.
- The district is responsible for other items determined by the guidelines found in the [Archeological Sites and Cemeteries Toolkit](#).

5.3.6 Historic Resources

5.3.6.1 General

A historic resource is a building, structure, object or district that, except under unusual circumstances, must be at least 50 years old at the time transportation construction begins. Historic resources are treated differently than archeological resources. For the purposes of this discussion, "historic resource" does not include archeological resources, which are covered in another section. Protected historic resources are called "non-archeological historic properties." A non-archeological historic property is listed or eligible for inclusion in the National Register of Historic Places or eligible for designation as a State Archeological Landmark. A cemetery with graves greater than 50 years old is considered an archeological resource and might also be required to be treated as a historic resource. State and federal laws regulate the impacts of transportation projects on historical resources, so the LG must coordinate with the TxDOT district during the scoping of project, which may impact these properties. The applicable state and federal laws are presented in the [LGPP Manual](#).

5.3.6.2 Required Practices

- Historical compliance responsibilities of the LG and TxDOT vary depending on issues of funding, land ownership and the involvement of one or more federal agencies.

- The project is evaluated during the scoping and project coordination request phase to determine whether historical surveys are needed. If a survey is required, it is performed after a TxDOT approved research design.
- [Section 106 of the National Historic Preservation Act](#) and [36 CFR Part 800](#) apply to all projects involving funding, licensing, permitting or approval by a lead federal agency, including agencies other than FHWA. 36 CFR Part 800 identifies a consultation process to be followed by federal agencies. The [Programmatic Agreement on Section 106](#) governs compliance with Section 106 and 36 CFR Part 800 when FHWA funds or approves projects. Under the agreement, TxDOT performs all actual consultation tasks on behalf of FHWA with the State Historic Preservation Office. If FHWA is not involved, the lead federal agency follows 36 CFR 800. Deviation from the Section 106 process or anticipatory demolition of an historic resource or non-archeological historic property prior to completion of the Section 106 process is grounds for litigation and may require the lead federal agency to withhold funding, licensing, permitting or approval of the project. FHWA generally is the lead federal agency with jurisdiction over Section 106. On rare occasions, another lead federal agency may have or share jurisdiction.
- The [Antiquities Code](#) applies to projects on land owned or controlled by the state or a political subdivision of the state. Funding source has no effect on Antiquities Code jurisdiction. The Antiquities Code requires the person primarily responsible for the project to give THC prior notice before beginning construction. A historic resource is protected by the Antiquities Code only if it is listed on the National Register of Historic Places, is a State Antiquities Landmark or is a listed National Historic Landmark. Deviation from the Antiquities Code process is grounds for litigation. Unpermitted demolition of a historic resource or historic property is grounds for prosecution as a misdemeanor offense.
- For projects with FHWA jurisdiction, ENV or, in some cases, FHWA performs all coordination with THC and other consulting parties defined in federal regulations. The entity with the most funding involved in the project is required to coordinate with THC under the Antiquities Code.
- Changes in project design or right-of-way and easement requirements require the project to be re-evaluated for historic impacts and require documentation that the changes were coordinated through the regulatory process.
- A historic property eligible for the National Register of Historic Places or for designation as a State Antiquities Landmark may also be protected under Section 4(f) of [49 U.S.C. §303](#) and [Texas Parks and Wildlife Code Chapter 26](#). See the [Taking or Use of Public Land Interests \[Section 4\(f\) Property\]](#) section below in this Guide. Any USDOT agency action that will result in a use of land from a historic resource that warrants preservation in place and that is an adverse effect must meet the requirements of the [Section 4\(f\)](#) of the US DOT Act of 1966 [see discussion on Section 4(f) Properties in subsequent section].

5.3.6.3 LG Responsibilities

- The LG should contact TxDOT to determine whether historical studies should be performed during the scoping and project coordination request phases.
- The LG will provide TxDOT with copies of all technical reports for historical studies generated by the LG. The LG will not submit reports directly to THC unless the LG is responsible for conducting Antiquities Code coordination. The LG will not submit reports or other materials directly to THC or other consulting parties for the purposes of Section 106 consultation.
- The LG must document completion of Section 106 consultation to determine the project's effects on sites, buildings, structures, objects and districts listed or may be eligible for inclusion in the National Register of Historic Places. TxDOT will provide documentation of consultation performed by ENV or FHWA. It is possible in some instances that the LG will be required to complete coordination with THC under the Antiquities Code, but TxDOT will have to complete coordination separately under Section 106.
- The LG must document completion of coordination with THC under the Antiquities Code for projects in which the LG performs Antiquities Code coordination. TxDOT will provide documentation of coordination performed by ENV.
- The LG will perform environmental studies and submit technical reports and other deliverables to TxDOT. Different AFA and other agreements between TxDOT and LGs may assign different environmental responsibilities to LGs. Therefore, the LG must be aware that its responsibilities may vary from project to project, and the LG should verify its responsibilities with the district. The LG must determine from its agreement with TxDOT the environmental compliance requirements, if any, that TxDOT will perform.
- If the project involves a lead federal agency other than FHWA, the LG is responsible for meeting that agency's Section 106 requirements.

5.3.6.4 TxDOT District Responsibilities

- The district must facilitate LG interactions with history subject matter experts.

5.3.7 Environmental Justice (EJ) and Community Impact Analysis (CIA)

5.3.7.1 General

Federal actions are required to comply with an array of laws pertaining generally to issues of civil rights, equity and community impacts. An environmental document must disclose effects related to these issues. The project file for a CE must document consideration of these issues. The general methods for analyzing and disclosing these effects fall under what is generally referred to as environmental justice (EJ) and community impact analyses (CIA).

Violations of the statutes below can have serious consequences. EJ and CIA issues are a major source of environmental litigation.

EJ and CIA analyses are among the most difficult analyses to perform because they resist standardization. The variables related to and affecting the analyses are complex, and their importance may vary as a result of the scale of project and the context within which the project occurs. In addition, guidance changes rapidly. The publication [“Community Impact Assessment, A Quick Reference for Transportation”](#) is especially useful for a LG to use during scoping of a transportation project. Many others are available from FHWA. The [LGPP Manual](#) provides a list of the federal regulations related to EJ and CIA issues.

5.3.7.2 Required Practices

- The community impact analysis must determine the extent to which the project will have direct, indirect or cumulative impacts on the displacements (residential, commercial and otherwise), access and travel patterns (for drivers, pedestrians, cyclists and transit users) and community cohesion.
- The community impact analysis must determine the extent to which the project may have indirect impacts and includes but is not limited to changes in traffic flow patterns, diversion of traffic through neighborhoods, decreased or increased property values for residential properties and increased commercialization of adjacent properties.
- The community impact analysis should identify a geographic region incorporating the communities expected to be affected by the project based on scoping, public involvement and interagency coordination.
- If indicators of minority or low-income populations are present, then an EJ analysis should be conducted. If indicators of persons with limited English proficiency are present, then a limited-English-proficiency analysis should be conducted. The LG must document its efforts to ensure both EJ and limited-English-proficiency populations can have meaningful participation in the NEPA process.
- Changes in project design or right-of-way and easement requirements require the project to be re-evaluated for environmental impacts and often require the LG to document the changes in EJ and CIA impacts.

5.3.7.3 LG Responsibilities

- The LG is strongly encouraged to consult with TxDOT in advance to develop a plan for EJ and CIA analyses. Information on how TxDOT conducts a community impact analysis is located in the [Community Impacts Assessment Toolkit](#).
- For projects interconnecting with the interstate highway system, the LG should consult with the TxDOT district to determine the spatial extent of FHWA jurisdiction.

- If the project involves a lead federal agency other than FHWA, the LG is responsible for meeting that agency's requirements regarding EJ and CIA analyses.

5.3.7.4 TxDOT District Responsibilities

- The district must facilitate the LG's interactions with EJ and CIA subject matter experts.

5.3.8 Taking or Use of Public Land Interests [Section 4(f) Property]

5.3.8.1 General

USDOT defines a "Section 4(f) Property" as any publicly owned land of a public park, recreation area or wildlife and waterfowl refuge of national, state or local significance, or land of a historic site of national, state or local significance ([23 CFR 774.17](#)). To be protected under Section 4(f), a historic site must warrant preservation in place and must be included in or eligible for inclusion in the National Register of Historic Places. A historic site does not need to be publicly owned to be subject to Section 4(f). The [LGPP Manual](#) provides a description of regulations associated with a Section 4(f) property and lists the associated state and federal regulations.

5.3.8.2 Required Practices

- A conclusion that there is no feasible and prudent alternative under Section 4(f) requires an engineering analysis demonstrating there is no feasible and prudent alternative. The "no feasible and prudent alternative" standard allows impacts only when all alternatives are BOTH not feasible AND not prudent. An alternative that is feasible but not prudent (or vice versa) cannot be chosen if there is an alternative that is feasible and prudent. Court rulings have indicated the cost is not a sufficient basis for determining there is no feasible and prudent alternative. [Texas Parks and Wildlife Code, Chapter 26](#) and [Natural Resources Code, Chapter 183](#) do not specify the requirements of a determination that there is no feasible and prudent alternative. [23 CFR 774.17](#) provides additional guidance on determining a feasible and prudent avoidance alternative related to Section 4(f). De minimis findings do not require an avoidance alternatives analysis.
- Section 4(f) requirements do not apply to federal actions under the jurisdiction of a lead federal agency other than FHWA or another component of USDOT.
- Changes in project design or right-of-way and easement requirements require the project to be re-evaluated for Section 4(f) impacts and often require documentation that the changes were coordinated through the regulatory process.

5.3.8.3 LG Responsibilities

- The LG must familiarize itself in detail with the statute, policy and procedures posted on FHWA's [Environmental Review Toolkit Section 4\(f\) web page](#). For protected properties subject to [Section 4\(f\)](#) and [Texas Parks and Wildlife Code, Chapter 26](#), the LG must document compliance with both statutes.

- If the project will use a protected property, the LG should consult with TxDOT as soon as possible to identify requirements for FHWA approval of a Section 4(f) determination, including identifying the parties whose concurrence is needed to approve the property use and associated mitigation. Because FHWA has no jurisdiction over [Texas Parks and Wildlife Code, Chapter 26](#), the LG must comply with the chapter regardless of FHWA's determination.
- Because [Section 4\(f\), Texas Parks and Wildlife Code, Chapter 26](#) and [Natural Resources Code, Chapter 183](#) require a demonstration of no feasible and prudent alternative, the LG must take and document steps to avoid affecting a protected property. The LG must demonstrate there is no feasible and prudent alternative that would avoid using protected properties for a transportation purpose. The LG must document its efforts to avoid and minimize impacts to Section 4(f) properties. De minimis findings do not require an avoidance alternatives analysis.
- The LG will provide TxDOT with copies of the Section 4(f) analysis and all similar technical reports generated by the LG. The LG will perform public involvement. While FHWA encourages project sponsors to coordinate public involvement activities to meet environmental public involvement requirements whenever possible, public involvement requirements for [Section 4\(f\), Texas Parks and Wildlife Code, Chapter 26](#) and [Natural Resources Code, Chapter 183](#) may be in addition to requirements for public meetings and hearings under the [National Environmental Protection Act](#) (42 U.S.C. §4321 et seq.) and [43 TAC Part 1, Chapter 2, Subchapter E](#). The requirements of Section 4(f), Texas Parks and Wildlife Code, Chapter 26 and Natural Resources Code, Chapter 183 sometimes must be completed separately from public involvement under the National Environmental Protection Act and 43 TAC Part 1, Chapter 2, Subchapter E.

5.3.8.4 TxDOT District Responsibilities

- The district must facilitate the LG's interactions with [Section 4\(f\), Chapter 26](#) and [Chapter 183](#) subject matter experts.
- The district must provide the LG with information regarding FHWA and TxDOT expectations for successful Section 4(f) evaluation, programmatic 4(f) evaluation, de minimis, Section 4(f) exception and similar analyses. The district should assist the LG in defining reliable scopes of work for environmental services.

5.3.8.5 TxDOT ENV Department Delegate Responsibilities

- ENV will make Section 4(f) determinations or make determinations that there is no feasible and prudent alternative to the use of lands protected by state law after an appropriate public hearing.

5.3.9 Hazardous Materials Management and Pollution Prevention and Abatement

5.3.9.1 General

Under state and federal laws, a landowner is responsible for abating releases of hazardous materials/wastes, including petroleum contamination. When contaminated land is acquired, the new owner is at risk of becoming responsible for cleanup, especially if the appropriate environmental assessment is not performed prior to the purchase. When hazardous materials are expected to impact project construction, preventive actions must be developed prior to construction. Preventive actions may include measures to avoid or minimize hazardous materials involvement, remove contaminated soil or water, prevent the further spread of contaminants and maintain a safe environment. When unanticipated hazardous materials are encountered during construction, TxDOT specifications require the affected construction activities to stop until the contamination issue is mitigated, which may result in costly delays. Therefore, the LG must determine, as early as possible in the project planning process, whether hazardous materials/wastes occur in existing and new right of way. Contaminated right of way cannot be purchased in TxDOT's name. The [LGPP Manual](#) provides a list of applicable state and federal regulations.

5.3.9.2 Required Practices

- The LG must determine if hazardous materials occur in existing and new right of way for the project. If it does, the LG must coordinate with the TxDOT district to determine the proper methods for abatement.
- TxDOT has final approval for all actions.

5.3.9.3 LG Responsibilities

- The LG contacts TxDOT to determine current procedures for addressing the following hazardous material issues.
 - Leaking petroleum storage tank assessment and remediation
 - Unauthorized waste injection well assessment and remediation
 - Construction through Superfund sites
 - Construction through landfills
 - Pipeline (active and abandoned) relocation from construction areas
 - Petroleum storage tank removal
 - Oil and gas well plugging and abandonment
 - Asbestos management

- Lead-based paint abatement
- Contaminated soil and groundwater management
- The LG must consult with TxDOT to identify the relevant regulatory agency. Agencies may include TCEQ, Environmental Protection Agency, Texas Railroad Commission and Texas Department of State Health.
- The LG must conduct all necessary coordination between TxDOT and regulatory agencies.

5.3.9.4 TxDOT District Responsibilities

- The district must facilitate the LG's interactions with hazardous materials subject matter experts.

5.3.10 Noise Abatement

5.3.10.1 General

The LG must evaluate highway projects for their potential to cause noise impacts that must be abated. The [LGPP Manual](#) has a description of the federal regulation that applies. Further guidance regarding traffic noise and abatement can be found at TxDOT's [Traffic Noise Toolkit](#) web page.

5.3.10.2 Required Practices

- Analyses of noise impacts are performed as specified in TxDOT's FHWA-approved [Guidelines for Analysis and Abatement of Roadway Traffic Noise](#). Noise analyses are documented in a technical report and summarized in the NEPA document.
- TxDOT does not fund noise abatement activities on Type II projects (noise abatement activities retrofitting an existing highway).
- A noise analysis consists of a noise impact analysis and, if noise impacts will occur, an abatement assessment.
- Changes in project design or right-of-way and easement requirements often require the project to be re-evaluated and may require the LG to document the project changes do not affect previous noise analyses.

5.3.10.3 LG Responsibilities

- The LG will consult with the TxDOT district to determine the area of TxDOT jurisdiction if an off-system project connects with an on-system facility.
- The LG will perform a noise analysis and report the findings to TxDOT.
- If abatement is required, the LG must develop and implement the abatement plan.

5.3.10.4 TxDOT District Responsibilities

- The district will facilitate the LG's interactions with noise subject matter experts.

6 Right of Way and Utilities

6.1 Introduction

The acquisition of right of way or other property and the accommodation of utilities located near or on property impacted by a transportation project necessitate close coordination between the state and cities, counties and other forms of local governments (LGs). The Texas Department of Transportation (TxDOT) has cooperated with LGs in the acquisition of real property and utility relocations for many decades. Projects on the state or national highway system, those involving the intersections of LG roads with the state highway system or those including state or federal funding program requirements are required to coordinate closely with TxDOT.

Right-of-way acquisition and utility relocation issues must be identified in the early phases of a transportation project. Details of the responsibilities of the LG and TxDOT must be included in the advance funding agreement (AFA) and may be an integral part of the preliminary design. A state letter of authority (SLOA) and possibly a federal project authorization and agreement (FPAA) may be required prior to initiation of right-of-way acquisition or utility accommodation. The LG must follow the [Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970](#) if any federal funds are used for any part of the project. This law applies even if the LG is providing all the funds for land acquisition or right-of-way purchase but is receiving federal funds for any part of engineering design or construction.

Right-of-way and utility issues need to be resolved prior to the Construction phase for most transportation projects. The following general tasks are typically completed during right-of-way acquisition and utility relocation.

- Establish agreement for right-of-way/utility funding
- Right-of-way acquisition
 - Procure consultant, if required (including Title VI guidance)
 - Acquire right of way
 - Relocate displaced individuals and businesses, if necessary
 - Complete demolition, if necessary
- Utility relocation
 - Procure consultant, if required (including Title VI guidance)
 - Coordinate joint bid utility relocations
 - Map utilities, secure permits and joint use agreements
 - Update environmental permits, issues and commitments (EPICs), if necessary

- Determine eligibility and upper limits
 - Execute reimbursement agreement, if applicable
 - Adjust utilities
 - Inspect utilities
- Submit final invoice and supporting documentation

The flowchart below shows the typical tasks for both right-of-way acquisition and utility relocation.



This chapter of the Local Government Project Management Guide (LGPM Guide) and the companion chapter of the [Local Government Projects Policy Manual \(LGPP Manual\)](#) provide general guidance to the LG for issues related to acquiring right of way and other land, relocation of utilities in the right of way and the provision of utility service to projects. A workflow of the Right of Way and Utilities phase is presented in more detail in the [LG Project Process Development Flowchart](#).

6.2 Right-of-Way and Other Land Acquisition

6.2.1 Overview

Land transactions occurring between TxDOT and LGs are divided into two broad categories for the purposes of this Manual and the LGPM Guide: right of way for roads, and interests in land used for other purposes.

- Right of Way for Roads – For most road and highway projects, the AFA will define which party is providing funding and coordination for the purchase of right of way. Projects may involve the use of local, state or federal funds for the purchase of right of way and may be subject to the requirements of [Title II](#) and [Title III](#) of the [Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970](#), and amendments thereto. Even projects that are entirely locally funded require TxDOT oversight if the project impacts the state highway system.
- Interests in Land Used for Other Purposes – The second category of TxDOT/LG land transaction relates to land to be acquired for purposes other than highway right of way. Interests in land used for other purposes may include different forms of real property, such as buildings or other structures. Two examples of real property interests are:
 - the acquisition of, or leasing of, real property for enhancement projects (such as the Frontiers of Flight Museum Project in Dallas at Love Field, which is on leased land); and
 - the acquisition of land by a LG for an intelligent transportation system (ITS) central communications building.

In these cases, specific program rules may impose unique requirements on the LG. For example, a leasehold interest in real property for an enhancement project must be for at least 10 years and condemnation for property acquisition for an enhancement project is not allowable. If real property is acquired by the LG for a project other than roads, the same requirements listed under Right of Way for Roads will be in effect.

To aid both TxDOT districts and LGs involved in TxDOT/LG projects, the TxDOT Right of Way (ROW) Division has developed the [ROW Real Estate Acquisition Guide for Local Public Agencies](#) and the [ROW Relocation Assistance Manual](#).

6.2.2 State Letter of Authority

As discussed in detail in [Chapter 2 - Project Initiation](#), the SLOA is a form that must be issued on all projects whether the work is competitively bid or performed by the LG. For construction projects, the first SLOA is required prior to preliminary engineering. The second SLOA is required prior to the acquisition of right of way or the accommodation of utilities. The third is required prior to advertising for bids for construction.

The need for right-of-way or other land acquisition is identified by the LG during the development of the project design in the Preliminary Engineering and Design phase and is included in the 30%

complete design documents. Once the Environmental Compliance phase is essentially complete, the second SLOA is requested by the LG and issued by TxDOT. A FPAA is required in addition to the SLOA for all federally funded projects. The completion of the Environmental Compliance phase and the subsequent issuance of the second SLOA/FPAA allow the LG to proceed with right-of-way acquisition or utility accommodations. Chapter 2 of this [Guide](#) and the [LGPP Manual](#) provide more information on the SLOA and FPAA.

6.2.3 Land Acquisition

6.2.3.1 General

The acquisition of land for either road right of way or other purposes by the LG must follow state and federal laws and statutes, which are described in the [LGPP Manual](#). The TxDOT [ROW Manuals](#) collection provides several volumes of detailed information including links to necessary forms, extensive legal citations and a process flowchart. Important summary material is found in Volume 1, Section 1 and Section 2, which include a project development overview and examples of contractual agreements. For example, at the beginning of a project involving right-of-way acquisition, the overview recommends that the LG should submit a request to TxDOT containing the following information:

- identification of Texas Transportation Commission approval of the project;
- identification of the date of environmental clearance; and
- inclusion of the right-of-way maps, geographic information systems (GIS) electronic files, property descriptions and parcel plats approved by the district prior to acquisition of the right of way.

Within the ROW manuals collection, LGs are frequently referred to as local public agencies (LPAs). The [LGPP Manual](#) provides a discussion of federal laws related to property acquisition through eminent domain and also describes other state and federal statutes related to land acquisition.

6.2.3.2 Required Practices

- For projects involving state or federal funds used by the LG to purchase land for a LG system project or on-system project, the LG will use TxDOT's procurement process, policies and forms to acquire title to the property and will comply with the requirements of the federal and state funding program that is the source of the funds.
 - If state funds are utilized in any portion of the project, the LG will use state processes, policies, procedures and forms.
 - All right of way acquired by the LG for state system projects and for LG system projects where federal funding is utilized must fully comply with federal regulations such as the [Uniform Relocation Assistance and Real Property Acquisitions Act of 1970](#).

- If the LG is not receiving funds from TxDOT for the purchase of property but there is federal participation in any part of an off-system project, the LG may, but is not required to, use TxDOT procedures, policies and forms to acquire title to the property. In all cases, the LG must comply with the federal funding program that is the source of the funds.
- The LG will maintain appropriate records to allow TxDOT to review the right-of-way acquisition process to ensure compliance with the federal and state regulations.
- The LG will provide TxDOT with documentation as parcels are acquired and as utilities are accommodated to allow reporting and records to be updated. The LG should not wait until all activities are complete for delivery of the documents.
- ROW is the TxDOT entity responsible for ensuring compliance with rules and regulations related to the acquisition of real property and is the primary point of contact for these activities.
- The LG should reference the [AFA](#), which provides a brief, but detailed, overview of legal requirements relating to land acquisition. The right-of-way provisions of the AFA address the case of the purchase of land by the LG for use on a LG road, as well as the purchase of land by the LG for use on the state highway system.

6.2.3.3 LG Responsibilities

- If the LG is purchasing land for its road system or other purpose, the LG will follow its own survey and title requirements. However, if federal or state funds are used, the LG must meet the requirements of these funding sources. Guidance may be found in the TxDOT [ROW Manuals](#) collection.
- If the LG is purchasing land for the state highway system, it must follow the survey requirements of the state, which are described in more detailed in Chapter 4 of TxDOT's [ROW Preliminary Procedures for the Authority to Proceed Manual](#) and Chapter 5 of the [TxDOT Survey Manual](#).
- Timely delivery of plans, documents and files to TxDOT for review and recording.
- If any building or other structure is located completely or partially on the right of way acquired for the project, the LG will be responsible for the removal or demolition of it. The demolition must include testing of and abatement of any hazardous materials as required by the [Texas Health and Safety Code](#).
- If federal funds will be expended on any part of the proposed project, the LG must strictly adhere to the acquisition requirements imposed by the Uniform Act, as noted above, as well as the [Title VI requirements](#).

- LGs will adopt TxDOT's disadvantaged business enterprise (DBE) program, which requires establishing DBE program participation goals, setting participation goals on specific contracts, and monitoring and reporting on the performance of its DBE participation. The establishment and implementation of a contract DBE participation goal must comply with federal laws and regulations and be consistent with TxDOT's DBE program. The regulations and requirements for the DBE program are discussed in [Chapter 7 - Plans, Specifications and Estimates \(PS&E\) Development](#).

6.2.3.4 TxDOT Right of Way Division Responsibilities

- ROW must ensure the LG uses TxDOT's procurement process, policies and forms to acquire title to the property and complies with the requirements of the federal and state funding program that is the source of the funds.

6.2.4 Advance Acquisition of Land

[23 U.S.C. §108](#) includes provisions for federal funding of right of way purchased by the LG in advance of final environmental approval. This law is specific and depends upon existing state statutory requirements. ROW advises caution in advance acquisitions because, if used inappropriately, it could jeopardize federal funding for the project. A LG should consult with ROW attorneys concerning any consideration of advance acquisition. If a LG chooses to use its own funds for advance acquisition without seeking federal reimbursement, it can do so subject to the guidance in [Chapter 3, Section 6](#) of TxDOT's ROW Acquisition Manual.

6.2.5 Relocation of Individuals and Businesses

6.2.5.1 General

Any LG project requiring an individual or business to move or requiring an individual or business to move its personal property will necessitate the LG to provide relocation assistance complying with the requirements of federal and state regulations as described in the [LGPP Manual](#).

Relocation assistance consists of two major elements – advisory services and financial assistance. These activities can have considerable impacts on project budgets and timing, and should be planned for accordingly. Any relocation assistance program must strive to ensure all displaced persons are treated fairly, consistently and equitably, and ensure those displaced persons do not suffer disproportionate negative impacts as a result of the project.

TxDOT's [ROW Relocation Assistance Manual](#) and ROW staff can offer further clarification and guidance on questions regarding interpretation and implementation of the [Uniform Act](#) and [49 CFR Part 24](#). If the LG does not have qualified staff to perform the required functions, it is recommended consultant services be obtained. Failure to ensure compliance with federal and state laws as described in the [LGPP Manual](#) can result in a loss of federal participation in the cost of the project.

6.2.5.2 Required Practices

- Relocation assistance is a specialized and complex subject. It requires extensive contact with displaced persons and monitoring of their relocation activities. The regulatory period for filing claims is 18 months from the date of displacement.
- If a LG does not have staff capable of providing these types of services, the LG may use a consultant. ROW has a list of consultants who are qualified to assist with providing relocation assistance and other related right-of-way services. If a LG prefers to contract for these services, TxDOT's contracting language template can be obtained from ROW. This template will help ensure the LG's procurement of services is compliant with state requirements for use of DBEs.
- ROW is the TxDOT entity responsible for ensuring compliance with rules and regulations related to the acquisition of real property and is the primary point of contact for these activities.

6.2.5.3 LG Requirements

Listed below are basic descriptions of the notices and program requirements for a LG project involving relocation. A thorough discussion regarding each of these requirements can be found in the [ROW Relocation Assistance Manual](#).

- Notices
 - General Information Notice – Persons to be displaced shall be furnished with a general informational notice as soon as feasible.
 - Notice of Relocation Eligibility – Eligibility for relocation assistance typically begins on the date of the first written offer to purchase the property or, in some instances, a special notice may be sent to establish eligibility prior to this offer.
 - 90-day Notice – No lawful occupant shall be required to move unless they have received at least 90 days advance written notice. Timing of this notice with the first written offer will eliminate the need for a separate notice of relocation eligibility.
 - 30-day Notice – If the 90-day notice is issued prior to the LG acquiring legal possession of the property, a written notice to vacate must be issued 30 days in advance of the LG's requirement that the displacee clears the acquired right of way. The 30-day notice does not eliminate the requirement that a displacee be afforded 90 days advance written notice prior to being required to move and must not be issued prior to the LG acquiring a legal right of possession.
- Advisory Services – “Advisory services” is a broad category of services required to be provided to a displacee by the LG. Advisory services includes:

- Maintaining a listing of comparable properties for residential displacees and suitable potential sites for non-residential displacees (businesses, farms and non-profit organizations);
- Offering transportation to a displacee to inspect replacement housing;
- Explaining the various types of moving reimbursements along with the eligibility requirements and method to obtain such assistance; and
- Monitoring a displacee’s moving activities and assisting with claim preparation.
- Financial Assistance
 - To residential displacees, financial assistance consists of making available to displaced residential owners and tenants payments necessary to ensure comparable, decent, safe and sanitary replacement housing is available within their financial means along with related incidental expenses and cost for increased mortgage interests. In addition, displacees can obtain reimbursement for reasonable and necessary moving expenses associated with relocating their displaced personal property.
 - To non-residential displacees, financial assistance includes reimbursement of reasonable and necessary expenses associated with moving displaced personal property. Additionally, financial assistance to non-residential displacees includes reimbursement of searching expenses as well as certain expenses incurred in re-establishing the business, farm or non-profit operation at a new location.
- Appeals Process – A LG with a relocation program must have a procedure in place to handle relocation appeals. A person may appeal the LG’s determination regarding eligibility for a payment or the amount of a relocation reimbursement.

6.2.5.4 TxDOT Right of Way Division Responsibilities

- ROW must:
 - ensure the LG uses TxDOT’s procurement process, policies and forms to acquire title to the property and complies with the requirements of the federal and state funding program that is the source of the funds;
 - provide relocation assistance services to displaced individuals and businesses;
 - process relocation payments; and
 - audit LG right-of-way acquisition files for compliance.

6.3 Utility Accommodation for Transportation Projects

6.3.1 Overview

This section provides general guidance to the LG for issues related to utility accommodation of transportation projects, including both the relocation of utilities in the right of way and the provision of utility service to projects.

6.3.2 Local Utility Relocation Procedures

6.3.2.1 General

According to the TxDOT [ROW Utilities Manual](#), certain utilities have a statutory right to occupy highway and road rights of way (subject to availability of space); however, the utilities' rights are subordinate to the needs of the transportation facility. If utilities are located in a road or highway right of way, they will frequently need to be relocated to allow for construction of a transportation project. Depending on the terms of the AFA (described in Chapter 2 of the [LGPP Manual](#) and this [Guide](#)), either the LG or TxDOT may be the party responsible for utility relocation.

The AFA will provide a brief but detailed overview of the legal requirements for utility relocations on transportation projects. For most TxDOT/LG projects, the LG is usually responsible for utility relocations; however, TxDOT may assume responsibility of the utility relocations, particularly for projects on the state highway system. The agreement will specify the level of responsibility of both parties. The [AFA](#) can be reviewed on TxDOT's website. The [LGPP Manual](#) provides a list of the federal and state regulations related to utility relocations.

6.3.2.2 Required Practices

- The local utility procedure advises the LG may acquire right of way and adjust utilities with its own forces and, to some extent, under its own rules.
- The LG must meet additional qualifications and requirements if the acquired right of way is to be placed on the state highway system, maintained by the state, has utility adjustments involved, or has state or federal funding within the project. The TxDOT [ROW Utilities Manual](#) contains a procedure for LG projects. The procedure may be summarized in the following steps:
 - there is a contractual agreement with the LG designating the responsibilities of each party;
 - the LG is responsible for negotiating, communicating and coordinating utility adjustments, including mapping and notifying TxDOT of all utilities on the project and securing agreements (relocation agreements, permits and joint use agreements) with the utility companies;
 - eligibility is determined by the compensable real property interests held by the utility;

- TxDOT cost participation is based on totally or partially eligible adjustments;
- the LG is responsible for making payments to the utility owner prior to seeking reimbursement from TxDOT;
- TxDOT reimbursement to the LG for utility adjustments is in accordance with the terms of the contractual agreement;
- the LG maintains local participation and control; and
- in some instances, there is a more expeditious payment of utility final billing.

6.3.2.3 LG Responsibilities

- Prior to and during highway design, the LG must map and notify TxDOT of all utilities on the project. The LG and utility owner may determine the need to contract portions of the design or construction, or may joint bid the highway and utility construction. These processes are discussed in [Chapter 5 of the ROW Utilities Manual](#).
- When state or federal funds are involved in a project requiring the acquisition of a utility's replacement property interest, the LG must:
 - follow the requirements of the [Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970](#);
 - certify it has complied with the above acts; and
 - coordinate with TxDOT prior to the acquisition of replacement right of way to assure eligibility for reimbursement.
- For projects involving utility accommodation, the LG must:
 - follow the state's [Utility Accommodation Rules](#), as set forth in the Texas Administrative Code; or
 - demonstrate the LG, through ordinance, resolution, franchise or permit process, has stricter guidelines than those of the state and the Federal Highway Administration (FHWA); and
 - execute a Utility Accommodation Declaration form ([Form ROW-U-UAD](#)).
- The LG must furnish the state with copies of proposed utility adjustment and installation plans, and estimated costs of the proposed adjustments to be used to determine the upper limit of participation by the state. Cost participation will be limited to 90% of eligible costs. If federal-aid participation is included, the LG must reference the information found in [Chapter 8, Section 10 of the ROW Utilities Manual](#).

- The LG must, either by requested review before or by documentation at the time of billing, prove the eligibility of the utility work by demonstrating the utility's property rights or compensable rights. A review by ROW, before expenditures, is recommended and may be accomplished by a submission in writing, with accompanying documentation, requesting the review. The process for determining the eligibility of an adjustment is provided in [Chapter 8 of the ROW Utilities Manual](#). The LG will be responsible for obtaining a written utility agreement contract between the LG and the utility owner. The use of a lump sum agreement, pre-approved by TxDOT, is encouraged.
- The LG must complete a form of occupancy agreement depending upon the property interest owned by the utility. The LG will utilize a utility permit when not possessing an easement or other property interest, or a joint use agreement to document the joint use of the easement area for each adjusted utility if on the state highway system. Forms and agreements are available in [Chapter 9 of the ROW Utilities Manual](#). While a utility is responsible for the construction and maintenance of its utility facility and shall be accomplished in a manner and to a standard acceptable to TxDOT, the LG will perform the role of TxDOT for inspections during construction as reflected in [Chapter 10 of the ROW Utilities Manual](#). Reimbursement under the LG agreement will be made after the LG verifies the work is complete. For the documentation required and the audit process, see [Chapter 11 of the ROW Utilities Manual](#).
- If any federal funds are used for any part of a LG project that requires adjusting a utility facility, the LG must assure compliance with Buy America requirements, including requirements associated with the materials permanently incorporated in an adjusted utility. Compliance with Buy America requirements must be documented and retained appropriately as discussed in [Chapter 7, Section 4 of the ROW Utilities Manual](#).

6.3.2.4 TxDOT Right of Way Division Responsibilities

- ROW must:
 - ensure the LG complies with the requirements of the federal and state funding program that is the source of the funds;
 - prepare and approve alternate procedure requests on behalf of FHWA;
 - review plans, estimate and property interest for determination of eligibility and upper limit;
 - process utility relocation payments; and
 - audit LG utility files for compliance.

6.3.3 Providing Utility Service to Projects

When necessary to extend utility service to projects such as a new building or rest area, the party constructing the project usually provides for extension of utilities. These utilities may include

water service, electric service or telecommunications service. The service may be provided by the local utility provider using standard procedures. If a special form of contract is necessary, the TxDOT district office may contact TxDOT's Contract Services Division (CSD) for a utility extension agreement, which may be modified with the advice of legal counsel to handle special conditions. Alternatively, the LG may use its own legal counsel for this purpose, if the facility will be owned and operated by the LG.

7 Plans, Specifications and Estimates (PS&E) Development

7.1 Introduction

Preliminary engineering and design elements that may be common to both non-construction and construction projects are presented in [Chapter 4 - Preliminary Engineering and Design](#) of this Local Government Project Management Guide (LGPM Guide). Design elements unique to construction projects are included in this chapter of this Guide. The Plans, Specifications and Estimates (PS&E) Development phase of a local government (LG) construction project generally occurs after the execution of the Advance Funding Agreement (AFA), after completion of other project initiation tasks as described in [Chapter 2](#) and after the 30% complete design is reviewed in the Preliminary Engineering and Design phase described in [Chapter 4](#). The PS&E phase may run concurrently with tasks outlined in [Chapter 5 - Environmental Compliance](#) and [Chapter 6 - Right of Way and Utilities](#). However, proceeding with tasks concurrently is done with some risk by the LG if all of the environmental commitments have not been cleared. Typically, a state letter of authority (SLOA) and possibly a federal project authorization and agreement (FPAA) are required prior to initiation of right-of-way acquisition and are issued by TxDOT upon the completion of the Environmental Compliance phase (see [Chapter 5](#)). The LG should coordinate with the Texas Department of Transportation (TxDOT) district office early in the PS&E phase of the project in order to proceed efficiently with design.

As noted in [Chapter 4](#), environmental permits, issues and commitments (EPICs) are any permits, issues, coordination commitments or mitigation obligations necessary to address, offset or compensate for social, economic or environmental impacts of a project. EPICs must be identified early in preliminary design and carried through PS&E as described in [Chapter 5](#). EPICs must be specified in the construction documents and will be monitored for compliance during the project and for a defined period of time after construction completion. A digital version of the standard EPIC form is available [online](#). The EPIC form must be included in the design documents, updated as necessary in the PS&E phase and included in the approved PS&E documents.

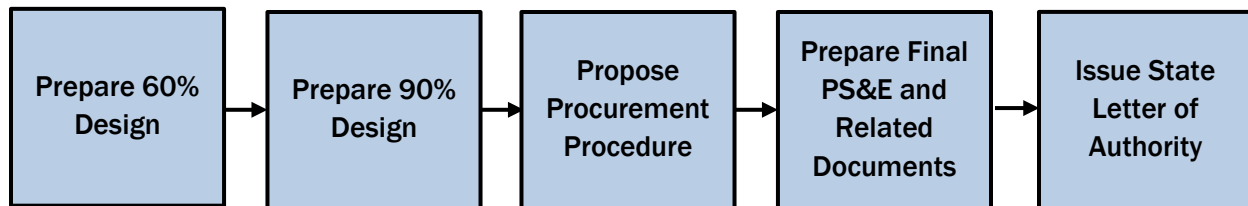
Project development staff in TxDOT's district office are the primary contact points for LGs in the development and approval of EPICs and the release of the project to construction. If the LG is developing EPICs, the LG will transmit the plans to the TxDOT district staff for their review and approval. The district is responsible for coordinating with the appropriate district department and/or engineering divisions in Austin [Design (DES) Division, Traffic Safety (TRF) Division, Bridge (BRG) Division and potentially others] and for providing the final approval of highway, enhancement and other projects. Upon approval of the LG project PS&E and contract documents, the district will coordinate with the Financial Management (FIN) Division to obtain the FPAA and provide a SLOA to authorize advertising for construction by the LG. The LG will not usually work directly with the responsible engineering divisions, unless specific technical issues need to be resolved.

The following general tasks are typically part of the PS&E phase.

- Prepare 60% design

- Prepare detailed design (specific design elements unique to construction projects are included in [Section 2, Design – Highways and Roads](#); [Section 3, Design – Traffic](#); [Section 4, Design – Bridges and Structures](#); and [Section 5, Design – Building Facilities](#))
- Refine cost estimate
- Complete railroad, right-of-way and utility coordination
- Prepare procurement documents (including Title VI requirements)
- Identify the use of sole source/proprietary material/equipment, if any
- Prepare proposal (bid documents) with all necessary forms included
- Complete environmental clearance and update EPICs
- Verify registration of project with the Texas Department of Licensing and Regulation (TDLR)
- Follow through with necessary railroad agreements and interstate access justification (IAJ) requirements (if applicable)
- Schedule letting date
- Prepare 90% design
 - Finalize detailed design (specific design elements unique to construction projects are included in [Section 2, Design – Highways and Roads](#); [Section 3, Design – Traffic](#); [Section 4, Design – Bridges and Structures](#); and [Section 5, Design – Building Facilities](#))
 - Finalize cost estimate
 - Finalize procurement documents (including Title VI requirements)
 - Finalize necessary railroad agreements and IAJ requirements (if applicable)
 - Finalize proposal (bid documents) with all necessary forms included
 - Finalize EPICs as necessary
 - Receive TDLR approval of plans
 - Update right-of-way map
 - Verify letting date

- Report consultant disadvantaged business enterprise (DBE) activity throughout phase (if applicable)
- Propose procurement procedure for construction contractor
- Prepare final project PS&E and related documents
- Propose quality assurance plan (QAP) for construction activities
- Receive approval in form of SLOA/FPAA authorizing construction



Each section of this chapter of the LGPM Guide presents general information and guidance, followed by topics containing more detailed information. The sections describe procurement matters relating to engineering services as well as detailing the processes needed to release projects for construction. Detailed descriptions of the policies and laws regulating each topic are contained in Chapter 7 of the [Local Government Projects Policy Manual \(LGPP Manual\)](#). A workflow of the PS&E Development phase is presented in more detail in the [LG Project Process Development Flowchart](#).

7.2 Design - Highways and Roads

7.2.1 Overview

This section builds upon the early phases described in [Chapter 4 - Preliminary Engineering and Design](#) and provides information on the design phase of highway and road construction projects. It provides a brief reference to items initiated in the 30% design and more details on items developed as the engineering progresses through final design. For all design elements, the LG and its design engineer must reference TxDOT's guidance manuals (such as the [Roadway Design Manual](#)) or other TxDOT-approved manuals or standards to find details for incorporating TxDOT and Federal Highway Administration (FHWA) design requirements into the project design.

7.2.2 Design Criteria

Chapter 4 - Preliminary Engineering and Design of the [LGPP Manual](#) contains a detailed discussion of the regulations and policies for design criteria used for highway and other construction projects. The same chapter of the [LGPM Guide](#) describes the practices for implementing established design criteria and the practices that must be followed if the LG desires to request an exception to the use of established design criteria. In general:

- The design criteria selected by the LG must follow federal and state guidelines if state or federal funds are used or if the project is on the state highway system. In general, the district may require the LG to submit a [design summary report](#) (DSR) (or similar document based upon the complexity of the project) to TxDOT, and TxDOT must assure the LG selects the proper functional classification and uses acceptable traffic data for highway and road projects.
- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the LG must submit a completed Form 1002 (or a substantially similar form) for TxDOT approval, which is discussed in TxDOT's [PS&E Preparation Manual](#). Design criteria on [Form 1002](#) should be consistent with criteria documented in the DSR (or similar form) unless interim approval of changes in criteria has been approved by the TxDOT district.
- For all projects where TxDOT will review and approve the final PS&E, the district must assure the plans either meet the required criteria or have an approved exception, including when [Texas Accessibility Standards](#) (TAS) are not met. The district must assure compliance with the [Americans with Disabilities Act Accessibility Guidelines](#) (ADAAG) and TAS when approving the PS&E; however, there is no other monitoring for projects not requiring an exception.

7.2.3 Design Level of Service

Level of service (LOS) is a measure of traffic flow and congestion and should be used by the LG to design a project that will reasonably accommodate traffic. For projects on the state highway system or involving state or federal funding, the LG must request traffic data from TxDOT, adhere to the requirements of LOS from TxDOT's [Roadway Design Manual](#), develop a capacity analysis using the [Highway Capacity Manual](#) and submit to TxDOT for concurrence. The TxDOT district

must review and approve the LG's analysis and selected LOS. [Chapter 4 - Preliminary Engineering and Design](#) provides a detailed discussion of the LOS regulations and procedures.

7.2.4 Hydraulic Design

7.2.4.1 General

Hydraulic structures must be designed to provide proper drainage for highways and roads. Guidelines for the design of hydraulic structures are contained in TxDOT's [Hydraulic Design Manual](#). In addition, [Chapter 5 - Environmental Compliance](#) of the LGPM Guide contains information regarding the consideration of water resources issues in project design. The hydraulic design process includes two key elements:

- selection of the design frequency for the drainage design for the roadway, which is dependent on the functional classification of the road and the type of drainage structure required; and
- coordination with the local floodplain administrator and with the Federal Emergency Management Agency (FEMA) for floodplain management issues.

The [LGPP Manual](#) provides the federal and state laws and policies related to hydraulic design.

7.2.4.2 Required Practices

- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the LG must comply with provisions of TxDOT's [Hydraulic Design Manual](#). In particular:
 - the LG must select a design frequency and verify the selected frequency is in conformance with Chapter 5 of TxDOT's [Hydraulic Design Manual](#) for the type of structure and functional classification of the roadway; functional classification must be based on the [TxDOT functional classification map](#) (located within the Statewide Planning Map); and
 - the LG is responsible for all FEMA coordination activities and documentation.
- The LG must include hydraulic studies and drainage area maps as part of its 30% submission to TxDOT.

7.2.4.3 LG Responsibilities

- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the LG must:
 - for design-bid-build:

- comply with TxDOT's [Hydraulic Design Manual](#);
- coordinate with FEMA; and
- include hydraulic studies and drainage area maps with the 30% submission to TxDOT;
- for design-build:
 - select the design frequency from TxDOT's [Hydraulic Design Manual](#); and
 - coordinate with FEMA.
- The LG should coordinate with the local floodplain administrator and with FEMA.

7.2.4.4 TxDOT District Responsibilities

- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the district will review the LG's design for compliance with the [Hydraulic Design Manual](#). The district will request assistance from DES as appropriate; however, DES review and approval is not required.

7.2.5 Longitudinal Barriers, Including Bridge Rail

7.2.5.1 General

A barrier is the longitudinal system located on either bridges, medians or along the roadside used to shield vehicles from potential hazards or work areas. There is a national standard to assure only those barriers meeting certain crash test criteria are installed. The [LGPP Manual](#) describes the state and federal regulations providing guidance for longitudinal barriers.

7.2.5.2 Required Practices

- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the LG must provide longitudinal barriers meeting the latest version of the following TxDOT manuals and standards:
 - [Bridge Railing Manual](#);
 - [Roadway Design Manual, Chapter 7, Section 1](#);
 - [Roadway Design Manual, Appendix A \(demonstrate consideration of the order of priority for treating obstacles in Section 2\)](#);
 - [Roadway Standards](#); and
 - [Bridge Standards](#).

- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the LG must incorporate TxDOT standard plans into the construction contract and must use TxDOT standard specifications or TxDOT-approved equivalent plans and specifications.
- For all projects with state or federal funds, and all projects on the state highway system, the LG must indicate the type of bridge rail to be used on the bridge layouts. See [Bridge Layouts section](#) of this chapter.

7.2.5.3 LG Responsibilities

- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the LG must:
 - for design-bid-build and design-build:
 - provide barriers meeting current TxDOT manuals and standards; and
 - use TxDOT standard plans and specifications in the PS&E unless otherwise approved by TxDOT;
 - for design-bid-build only, show the type of rail on the bridge layouts.

7.2.5.4 TxDOT District Responsibilities

- For projects requiring the LG to submit bridge layouts, the district must review the submittal to assure the type of bridge rail shown complies with TxDOT's [Bridge Railing Manual](#).
- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the district must assure all longitudinal barriers comply with TxDOT manuals, standards and policies. For projects requiring TxDOT approval of the PS&E, the district must assure the plans incorporate TxDOT standard plan sheets and the specifications are comparable to TxDOT specifications. The district may request assistance from DES as appropriate. DES review and approval is not required.
- For projects with a pass-through financing arrangement, the district approves the PS&E but may contact DES, BRG and TRF as appropriate for assistance.

7.2.6 Pavement Design

7.2.6.1 General

The proper design of a long-lasting pavement must be included in the overall project design in order to reduce pavement costs and future maintenance costs. Lower maintenance requirements also reduce road user costs by minimizing future lane closures for maintenance. TxDOT's [Pavement Manual](#) provides pavement design methods and other

standards. The [LGPP Manual](#) provides a description of the state and federal laws regulating pavement design.

7.2.6.2 Required Practices

- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the LG must use the pavement design methods in TxDOT's [Pavement Manual](#). Use of an "experience/performance" based procedure requires prior concurrence of the TxDOT district's pavement engineer.
 - Projected traffic volumes for projects on the state highway system will be as furnished by the TxDOT Transportation Planning and Programming (TPP) Division. Projected traffic volumes will be based on a performance period of 20 years for flexible pavement design and 30 years for rigid pavement design unless otherwise directed or approved by TxDOT. Projected traffic volumes for projects off the state highway system will be furnished by the LG for a design period in accordance with its local practice.
 - Geotechnical investigations and reports for projects on the state highway system must comply with the principles in TxDOT's [Pavement Manual](#). For projects with state or federal funds not on the state highway system, geotechnical investigations and reports should generally comply with the principles in the TxDOT's Pavement Manual.

7.2.6.3 LG Responsibilities

- For all design-bid-build and design-build projects with state or federal funds, and all projects on the state highway system regardless of funding source, the LG must:
 - request traffic data from the TxDOT district for projects on the state highway system;
 - furnish projected traffic volumes for projects not on the state highway system;
 - perform geotechnical investigation and develop a geotechnical report; and
 - prepare a pavement design report under direction of a Texas-licensed professional engineer and submit to TxDOT for approval.

7.2.6.4 TxDOT District Responsibilities

- For all projects with state or federal funds, and all projects on the state highway system, the TxDOT district's pavement engineer must approve all pavement designs. The district must also:
 - request projected traffic data from TPP for projects on the state highway system and furnish it to the LG;

- review the pavement design report to assure the pavement designs meet TxDOT's [Pavement Manual](#);
- assure the selected pavement design addresses issues in the geotechnical investigation;
- provide technical assistance to the LG as requested; and
- request assistance from the Materials and Tests Division (MTD) as needed.

7.2.7 Road Closure/Detour Plans

7.2.7.1 General

Construction often requires lane closures, detours or road closures. For all projects on the state highway system or impacting the state highway system, detours and closures must be coordinated with the entities responsible for both the road being detoured or closed and the road traffic is expected to use. TxDOT's [Project Development Process Manual](#) and the [Texas Manual on Uniform Traffic Control Devices](#) (TMUTCD) provide guidance for road closures and detours. The [LGPP Manual](#) describes the state and federal regulations related to these types of projects.

7.2.7.2 Required Practices

- For all projects on the state highway system or off the state highway system where traffic is to be detoured onto the state highway system, the LG must submit a request to TxDOT for approval before implementing the closure. The request must contain all of the provisions listed in [Task 50920](#) of TxDOT's Project Development Process Manual.
- For projects off the state highway system that do not detour traffic onto the state highway system, the LG is responsible to assure the lane closures, detour plans and closures are done in accordance the [TMUTCD](#).
- For all projects on the state highway system that require the closing of a highway, the LG must submit a provision to be included in the PS&E identifying the days on which the highway may not be closed, and include a requirement to communicate with public officials from municipalities affected by the closure to avoid adverse economic impacts on the municipalities during:
 - periods of increased travel on the state highway system, including major state and federal holidays and school holidays; and
 - other periods of high commercial activity in the state. including limited periods in which certain items are exempted from the sales tax imposed by the [Texas Tax Code, Chapter 151](#).

7.2.7.3 LG Responsibilities

- For all design-bid-build and design-build projects on the state highway system or off the state highway system where traffic is to be detoured onto the state highway system regardless of funding source, the LG must:
 - develop a road closure/detour plan request following [Task 50920](#) of TxDOT's Project Development Process Manual;
 - submit a request to TxDOT before advertising for receipt of bids (or implementing a road closure/detour for design-build); and
 - secure TxDOT approval before deviating from an approved plan.
- For projects off the state highway system where traffic will not be detoured onto state highway system, the closure/detour plans must meet the [TMUTCD](#) requirements.

7.2.7.4 TxDOT District Responsibilities

- For all projects on the state highway system or off the state highway system where traffic is to be detoured onto the state highway system, the district must review the LG's road closure and/or detour request for compliance with [Task 50920](#) of TxDOT's Project Development Process Manual. Approval of the LG's request is by the TxDOT district engineer.
- For projects with state and federal funds off the state highway system that do not detour traffic onto the state highway system, TxDOT should concur with LG closure/detour plans and have the LG engineer certify the traffic control plan meets the requirements of [TMUTCD](#).

7.2.8 Specifications/Special Provisions

7.2.8.1 General

Specifications are the directions, provisions and requirements outlining the description of work and the methods and manner work is to be performed. Specifications and special provisions for highway and road projects are an integral part of the contract between the LG and the contractor. TxDOT maintains [standard specifications, special specifications and required special provisions](#) for use on road and highway projects in Texas. The [LGPP Manual](#) lists the state and federal regulations relating to the use of specifications and special provisions.

7.2.8.2 Required Practices

- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the LG must either adopt the latest TxDOT standard specifications, applicable special specifications and required special provisions or request TxDOT approval of alternate, equivalent specifications.
 - For contract administration Items 1-9, the LG may use the [LG version of the TxDOT Standard Specifications Items 1-9](#).
 - For contract administration Items 1-9 where the LG desires to propose alternate specifications, the LG must assure its proposed specifications address all issues and comply with state and federal statutes to the same degree as TxDOT LG Standard Specification Items 1L-9L. To assist this effort, the LG is to use a checklist furnished by TxDOT. Proposed specifications are to be submitted to TxDOT at 60% design completion to give TxDOT sufficient time for review and comment. Later submissions may delay TxDOT issuance of authority to proceed with the next phase of the project. The LG's submission must contain a description of how the LG meets all the items on the checklist.
- For projects with federal funds, the LG must submit a public interest determination for TxDOT approval before specifying proprietary materials or processes. See the [Patented/Proprietary Products section](#) of this chapter for more information.

7.2.8.3 LG Responsibilities

- For design-bid-build and design-build projects with state or federal funds, or on the state highway system regardless of funding source, the LG must:
 - adopt latest TxDOT standard specifications, applicable special specifications and required special provisions or submit alternate specifications for TxDOT approval if allowed by state regulation; and
 - obtain approval from TxDOT if specifying proprietary materials or processes.

7.2.8.4 TxDOT District Responsibilities

- For all projects with state or federal funds, and all projects on the state highway system regardless of funding source, the district must perform one of the procedures below.

- Review the standard specifications, special specifications and special provisions developed by the LG for compliance with state and federal statutory requirements and applicable TxDOT policy. Additional review time will be needed for TxDOT to review the LG’s specifications for compliance with all federal and state requirements. TxDOT’s approval of PS&E must include assurance the district has reviewed the specifications and determined they meet TxDOT standards and policies. The district may request assistance from DES as appropriate. DES review and approval is not required.
- Review PS&E package to assure the LG includes the latest TxDOT standard specifications, special specifications and applicable special provisions. Refer to the [State Letter of Authority section](#) for PS&E review and processing.
- For projects with federal funds, the district must review the LG’s public interest determination for reasonableness before sending to DES for approval. For projects with a pass-through financing arrangement, the district must approve the public interest determination and may contact DES for assistance as needed.

7.3 Design - Traffic

7.3.1 Overview

A LG transportation project may include traffic engineering, traffic safety, railroad crossing and signals, and traffic management. The traffic operations and project development staff at the TxDOT district are the primary contact points for the LG on traffic operations projects. If the LG is required to submit PS&E for TxDOT review and approval, the LG will transmit the PS&E to the TxDOT district office. The district may request assistance from TRF in Austin. TRF is responsible for statewide traffic operations, including traffic safety, traffic signals, intelligent transportation system, operational engineering and management issues, and railroad signals and crossings.

The LG is required to follow the [Procedures for Establishing Speed Zones Manual](#) when altering speed limits on off-system turnpikes. The [LGPP Manual](#) describes the related state and federal codes.

The following sections contain guidance for the LG to address traffic operations issues and to coordinate with the TxDOT district, which provides monitoring of the LG submittals.

7.3.2 Category 8 Safety Projects (HSIP and FSP)

7.3.2.1 General

“Category 8 Safety Projects” are traffic safety projects with federal and local funds.

- The [Highway Safety Improvement Program](#) (HSIP) is federally funded, and program funds are eligible to cover 90% of project construction costs. The remaining 10% of project construction costs must be covered by state or local participation.
- [Federal Railroad Signal Program](#) (FSP) projects include installation or updates to railroad signals and/or signage improvements to public railroad-highway at-grade crossings both on and off the state highway system.

TxDOT does not allow the LG to let and manage HSIP and FSP projects. The district will execute an AFA with the LG outlining the financial responsibilities of the LG for HSIP projects not on the state highway system. An AFA is not required on FSP projects. The [LGPP Manual](#) describes the federal and state laws and codes related to these projects.

7.3.2.2 Required Practices

- For FSP and HSIP projects, TRF will select projects based upon available funding and defined scoring criteria for FSP and HSIP projects and will define the funding and level of involvement for the LG based upon program criteria. TxDOT will involve the LG as necessary based on location and whether the project is on or off the state highway system.
- For HSIP projects, only those elements included in the project scope will be evaluated for compliance with geometric design criteria.

7.3.2.3 LG Responsibilities

- For HSIP projects, the LG must apply to TxDOT for funding (not applicable for FSP projects).
- The LG will participate in the project with TxDOT involvement as described in an agreement with TxDOT.
- The LG must participate in the FSP project diagnostic inspection during the project development process.

7.3.2.4 TxDOT District Responsibilities

- For Category 8 programs, the district must:
 - provide assistance to the LG as requested and serve as liaison between the LG and TRF as dictated by the program;
 - coordinate with TRF to execute the AFA for all off-system HSIP projects;
 - initiate the FPAA process for all off-system projects; and
 - submit the HSIP projects to TRF for PS&E approval.
- For FSP projects, the district must:
 - evaluate proposed project locations during the selection process of FSP projects;
 - develop the FSP preliminary project plan, participate in the diagnostic inspection process and prepare the final plans; and
 - provide construction oversight and conduct the final inspection.

7.3.3 Illumination/Electrical

7.3.3.1 General

Roadway illumination normally falls into one of several categories: continuous lighting; safety lighting; or bikeway and pedestrian lighting. Illumination may be provided by the LG on eligible roadways where conditions warrant installation. Guidance is contained in TxDOT's [Highway Illumination Manual](#). The LG may have applicable ordinances that apply to transportation illumination.

Electrical work is covered by TxDOT [specifications](#) and the [National Electrical Code](#). The applicability in all possible situations is outside the scope of the LGPP Manual and LGPM Guide. The Manual does provide a description of the related federal and state regulations.

7.3.3.2 Required Practices

- For projects with state or federal funds, and all projects on the state highway system regardless of source of funds, the LG must determine eligibility for lighting in accordance with TxDOT's [Highway Illumination Manual](#) and submit the justification to TxDOT for approval as a condition for receiving funds. The submission must also provide evidence of compliance with the [Texas Health and Safety Code, Chapter 425](#). According to TxDOT's Highway Illumination Manual:
 - For projects on the state highway system, illumination levels for continuous lighting should be according to the American Association of State Highway and Transportation Officials.
 - For projects on the state highway system, roadway lighting installed by LGs should meet all safety-related requirements under state and federal law and TxDOT functional manuals.
 - For projects on the state highway system, LGs must obtain the approval of the state for all proposals to install illumination. The proposals should be reviewed by TxDOT for compliance with pole placement guidelines. Overhead sign installations should not be illuminated unless supported by an engineering study.
 - For off-system projects with state or federal funds, and all projects on the state highway system regardless of source of funds, the LG must use TxDOT standard plan sheets or the LG's standard sheets and specifications that have been approved by TxDOT and must incorporate the provisions of TxDOT LG [Standard Specification Item 7.18L, "Electrical Requirements"](#), for construction of electrical and illumination facilities, including the latest required TxDOT special provisions.
- For illumination projects on the state highway system or projects with state or federal funds, the LG must assure compliance with the latest edition of the [National Electrical Code](#).

7.3.3.3 LG Responsibilities

- For projects with state or federal funds, or all projects on the state highway system regardless of funding source, the LG must:
 - meet warrants for illumination and submit them to TxDOT;
 - include TxDOT LG [Standard Specification Item 7.18L](#) and any required special provisions or equivalent in the PS&E or other bid documents (design-build); and
 - include TxDOT standard plan sheets as appropriate in the PS&E or other bid documents (design-build).
- Include up-to-date traffic standards using the [TxDOT Traffic Standards web page](#).

7.3.3.4 TxDOT District Responsibilities

- For projects with state or federal funds and all projects on the state highway system, the district must process the LG's submission as outlined in the [Highway Illumination Manual](#). For projects with a pass-through financing arrangement, the district approves the eligibility determination but may contact TRF for assistance as needed.
- For projects with state or federal funds and all projects on the state highway system, the district must assure the construction plans and specifications or other procurement documents include TxDOT standard plans and concepts of [Item 7.18L of the LG Standard Specifications](#).

7.3.4 Intelligent Transportation Systems

7.3.4.1 General

Intelligent transportation systems (ITS) are the integration of communication and technology systems to improve road traffic conditions, safety and mobility. ITS also provides for the integration and coordination of multiple agencies in jurisdictions within a region to improve total travel networks, not just one facility or service. Information is collected from the roadways using methods such as detectors, floating car data and video surveillance, and is stored in a database. Human operators review anomalous data, and, if determined to be detrimental to travel conditions, it is noted as an "incident." Operators provide this information to the appropriate traffic, maintenance and emergency management providers, and inform motorists through the use of dynamic message signs, websites, mobile devices, news outlets, social media and more. The [LGPP Manual](#) provides the federal laws regulating ITS projects.

7.3.4.2 Required Practices

- For projects with state or federal funds, or all projects on the state highway system regardless of funding source, the LG must gain approval from TRF before developing and implementing any ITS components.
- All projects with federal funds must comply with the prohibition of use of services, systems, or services or systems that contain components produce by manufacturers named by [2 CFR 200.216](#) and [2 CFR 200.471](#).
- Off-system projects must ensure compliance with TMUTCD.
- For all projects on or impacting the state highway system, the LG must:
 - develop (using FHWA’s [Regional ITS Architecture Guidance](#) document) and require [National Transportation Communications for ITS Protocol](#) compliant components; and
 - provide center-to-center communication access to TxDOT.

7.3.4.3 LG Responsibilities

- For projects with state or federal funds, or all projects on the state highway system regardless of funding source, the LG must solicit TxDOT approval of all ITS issues.
- The LG must ensure compliance with [TMUTCD](#).

7.3.4.4 TxDOT District Responsibilities

- For projects with state or federal funds, or all projects on the state highway system regardless of funding source, the district must refer all ITS questions TRF to assure compliance with approved ITS architecture and standards.
- For off-system projects, the district must review to verify compliance with [TMUTCD](#). The district may contact TRF for assistance as needed.

7.3.5 Pavement Markings and Markers

7.3.5.1 General

Pavement markings are patterns or shapes set into the surface of, applied upon or attached to the pavement to inform or guide traffic. Typical markings intended to guide traffic include striping, traffic buttons, raised pavement markers and graphics. The [LGPP Manual](#) provides the state and federal regulations relating to pavement markings.

7.3.5.2 Required Practices

- For design-bid-build and design-build projects with state or federal funds and all design-bid-build and design-build projects on the state highway system, the LG must:
 - develop pavement marking plans to comply with the [TMUTCD](#);
 - consult with the TxDOT district concerning any district policies on types of materials;
 - include the latest TxDOT standard sheets in the project plans (the sheets are listed in the [Traffic Engineering Standard Plan Sheets](#) section of DES's web page;
 - include TxDOT standard specifications and latest required special provisions in contract documents; and
 - require testing of pavement markings and markers in accordance with TxDOT specifications and [Test Procedures 800-B Series](#).
- For off-systems projects, the LG must develop pavement marking plans to comply with [TMUTCD](#) and American Association of State Highway and Transportation Officials (AASHTO) standards or TxDOT-approved alternates.

7.3.5.3 LG Responsibilities

- The LG must assure compliance with the [TMUTCD](#).
- For projects on the state highway system, the LG must:
 - consult with the TxDOT district concerning material preferences;
 - include TxDOT standard specifications and required special provisions; and
 - assure material testing complies with TxDOT test procedures.
- For off-systems projects involving state or federal funding, the LG must:
 - develop pavement marking plans to comply with [TMUTCD](#) and AASHTO standards or TxDOT-approved alternates; and
 - submit all requests for alternate specifications to the TxDOT district.

7.3.5.4 TxDOT District Responsibilities

- For design-bid-build and design-build projects with state or federal funds and all design-bid-build and design-build projects on the state highway system, the district must:
 - assure the LG understands the district's material preferences;

- review the PS&E for compliance with [TMUTCD](#) and TxDOT manuals and policies; and
- review LG requests for alternate specifications and request review by TRF when appropriate.;
 - for projects with a pass-through financing arrangement, the district approves alternate specifications but may request assistance from TRF as needed.

7.3.6 Railroad Coordination

7.3.6.1 General

When projects cross railroad right of way or otherwise affect railroad facilities, pre-design and pre-construction coordination with the railroad is necessary to protect the interests of both the railroad and the entity administering the project. Coordination also involves obtaining railroad approval of the project PS&E by executing an agreement with the railroad and providing mandatory insurance for the railroad. This can be a time-consuming process and should be started early in the project development process.

Federal-aid projects require a statement, often referred to as the railroad certification, from TxDOT and the LG confirming the appropriate railroad coordination has taken place. This statement is required for all federal-aid highway construction projects, including projects not involving a railroad. The [LGPP Manual](#) lists the state and federal regulations governing railroad crossings.

7.3.6.2 Required Practices

- For projects with state or federal funds and all projects on the state highway system, when determined in the AFA that the LG is responsible for the development of the project, the LG must develop projects involving railroads to the standards contained in TxDOT's [Rail Highway Operations Manual](#) for the applicable type of work and source of funding. This includes provisions of the railroad agreement, content of Exhibit A and specific design features. The agreement must contain all of the provisions contained in TxDOT's Rail-Highway Operations Volume for the applicable type of work.
- For all projects on the state highway system, TxDOT is to be a party to the railroad agreement. In addition, the LG must furnish a copy of the fully executed railroad agreement to TxDOT. The LG may request assistance from TxDOT to help prepare and process the agreement.
- For all projects, the LG must provide to TxDOT a railroad certification identifying whether or not railroad coordination is necessary.
- For all projects, the LG must include appropriate provisions of the railroad agreement in the contract documents.

7.3.6.3 LG Responsibilities

- For design-bid-build projects with state or federal funds, or on the state highway system regardless of funding source, the LG must:
 - develop an agreement with the railroad using TxDOT's standard agreement form and Exhibit A and submit it to TxDOT with the PS&E;
 - include agreement provisions and applicable specifications in the PS&E;
 - adopt [TxDOT's LG Standard Specification Item 5.8L](#) or equivalent; and
 - include any required special provision.
- For design-build projects with state or federal funds, or all projects on the state highway system regardless of funding source, the LG must submit a certification of railroad coordination with a request for TxDOT to approve the final design and construction (see the [Right of Way, Utility and Railroad Certification section](#) of Chapter 4 - Preliminary Engineering and Design).

7.3.6.4 TxDOT District Responsibilities

- For projects where the PS&E will be approved by TxDOT, the district must review the agreement and Exhibit A for conformity with TxDOT policy, and assure the exhibit and any appropriate special provisions/specifications are included in the PS&E.

7.3.7 Signing Requirements for Geometric Schematic

7.3.7.1 General

Signs are traffic control devices used by TxDOT and LGs to provide guidance on streets, highways or bicycle trails. Major guide signs must be included in the geometric schematic for many LG projects. [Chapter 4 - Preliminary Engineering and Design](#) includes a section on the development of a geometric schematic. The geometric schematic shows features such as location of interchanges, ramps, and the number and arrangement of lanes. It is critical to consider signing at this stage of project development to assure a facility is constructed that can be properly signed and operated. The [LGPP Manual](#) describes the state and federal regulations applicable to signing requirements.

7.3.7.2 Required Practices

- All traffic control devices on all projects must comply with the [TMUTCD](#).

- For projects requiring the development of a geometric schematic, major guide signs must be included on the geometric schematic. (See the [Geometric Schematic section](#) of Chapter 4 - Preliminary Engineering and Design.) A geometric schematic is required for new location, added capacity or controlled access projects, or projects requiring an environmental impact statement.
- When geometric schematics are not required, the LG is encouraged to assure major guide signing will meet the [TMUTCD](#) provisions before committing to a final project layout.

7.3.7.3 LG Responsibilities

- The LG must ensure signing on all projects complies with the TMUTCD and TxDOT standards.
- For projects with state or federal funds, or all projects on the state highway system regardless of funding source, the LG must:
 - for design-bid-build, include major guide signs on the geometric schematic; and
 - for design-build, develop and submit a signing schematic to TxDOT if a geometric schematic is required by agreement.

7.3.7.4 TxDOT District Responsibilities

- The district must receive the geometric schematic from the LG and review major guide signs for compliance with [TMUTCD](#).
- The district will review and approve the signing contained in the final geometric schematic. The district may consult with DES and TRF if desired.
- For projects with a pass-through financing arrangement, the district approves the guide signs but may contact TRF for assistance as needed.

7.3.8 Regulatory and Construction Speed Zones

7.3.8.1 General

Speed limits are established to reflect the speed the majority of drivers will be traveling at or below. [TMUTCD](#) is the state standard applicable to all roadways open to public traffic. TMUTCD §2B.13 states, “Speed zones (other than statutory speed limits) shall only be established on the basis of an engineering study that has been performed in accordance with traffic engineering practices. The engineering study shall include an analysis of the current speed distribution of free-flowing vehicles. The Speed Limit (R2-1) sign shall display the limit established by law, ordinance, regulation, or as adopted by the authorized agency based on the engineering study.”

State law requires speed limits on state highways to be set at the statutory speed established by law, unless a traffic and engineering study shows the need for a differing speed limit. Local agencies have the authority to establish speed zones on state highways within the limits of their jurisdictions and for roadways off the state highway system. The process for establishing speed limits on the state highway system, including regulatory speed limits in construction zones, is contained in TxDOT's [Procedures for Establishing Speed Zones manual](#). The [LGPP Manual](#) describes the state and federal codes relating to speed limits.

7.3.8.2 Required Practices

- For all projects, the LG must conduct speed studies conforming to the requirements of TxDOT's [Procedures for Establishing Speed Zones manual](#) if the desired speed limit differs from the prima facie limit established by state statute. Documentation and approval of the request must follow the procedures manual.
- For all requests for permanent speed limit changes that must be approved by the Texas Transportation Commission, the district will review the request for completeness and submit it to TRF with an approval recommendation.
- For projects on state highways within the limits of a LG's jurisdiction not requiring approval by the Texas Transportation Commission and for roadways off the state highway system, the LG shall establish speed limits in accordance with applicable state and federal laws and regulations.
- For all projects where the PS&E is approved by TxDOT, the LG must submit requests for construction speed zones on [TxDOT Form 1204](#).

7.3.8.3 LG Responsibilities

- For projects with state or federal funds, or all projects on the state highway system regardless of the funding source, the LG must:
 - conduct speed studies and submit documentation to TxDOT in compliance with TxDOT's [Procedures for Establishing Speed Zones manual](#);
 - for construction speed limits, submit completed [Form 1204](#) to TxDOT for approval;
 - assure “approved” construction and permanent speed limits are posted; and
 - follow the above for design-build projects unless modified by agreement with TxDOT.

7.3.8.4 TxDOT District Responsibilities

- For all projects with state or federal funds, or all projects on the state highway system regardless of funding source, where the LG is allowed to approve requests to post a speed limit different than the prima facie limit, the district must assure the LG has properly documented the approval before the project is opened to traffic.
- For projects where the PS&E is approved by TxDOT and the speed limit must be approved by the Texas Transportation Commission, the district must:
 - review [Form 1204](#) for completeness and transmit to TRF for action by the Texas Transportation Commission; and
 - assure the plans include construction and permanent signing appropriate for the legal speed limit.

7.3.9 Traffic Control Plan

7.3.9.1 General

The traffic control plan is defined as all documents pertinent to the proposed efficient, effective and safe travel of the public through work zones on a construction project, including the safety of construction workers and inspection personnel. Such documents include plan sheets, general notes, specifications, special specifications, special provisions and quantities. Traffic control plans are an integral part of each construction and maintenance project. [Part 6 of TMUTCD](#) contains criteria for development of traffic control plans. TxDOT policy on work zones is contained in an administrative memorandum titled “Work Zone Safety and Mobility Guidelines,” issued on Nov. 20, 2008. This administrative memorandum is available from TxDOT district offices on TxDOT’s intranet system. Traffic control devices exposed to traffic must meet certain safety criteria to be considered “crash worthy.” Devices in the current version of TxDOT’s [Compliant Work Zone Traffic Control Device List](#) meet these criteria. The [LGPP Manual](#) provides the federal and state regulations related to the LG’s development of a traffic control plan.

7.3.9.2 Required Practices

- TxDOT meets the requirements of [23 CFR Part 630](#) by adoption of the administrative memorandum titled “Work Zone Safety and Mobility Guidelines,” issued on Nov. 20, 2008. This administrative memorandum is available from TxDOT district offices on TxDOT’s intranet system. For projects with state or federal funds and all projects on the state highway system, the LG must comply with the guidelines.
- For federally funded projects, the LG must prepare a transportation management plan (TMP), which includes a traffic control plan (TCP).

- All work zone traffic control devices must be in compliance with TxDOT's [Compliant Work Zone Traffic Control Device List](#).

7.3.9.3 LG Responsibilities

- For design-bid-build projects with state or federal funds, or on the state highway system regardless of funding source, the LG must:
 - Submit a completed [Form 2229](#), which is the form used for significant project determination, to TxDOT early in the project development phase. This should be included for all projects.
 - Develop the TMP/TCP as applicable and include it in the contract documents. The TMP is composed of public information and traffic operation strategies, and a TCP. For projects or classes of projects that the LG or TxDOT determine to have less than significant work zone impacts, the TMP may consist only of a TCP.
 - Adopt [TxDOT Standard Specification Item 502](#) and TxDOT LG Standard Specification Item 7.2L or submit alternate specification(s) to TxDOT for approval. Include required special provisions or equivalent.
 - Specify devices from the [Compliant Work Zone Traffic Control Device List](#).
 - Assure the contract documents require compliance with [TMUTCD](#).
 - Assure compliance with the requirements of [23 CFR Part 630](#) by adoption of the administrative memorandum titled “Work Zone Safety and Mobility Guidelines,” issued on Nov. 20, 2008. This administrative memorandum is available from TxDOT district offices on TxDOT’s intranet system.
- For design-build projects with state or federal funds, or on the state highway system regardless of funding source, the LG must:
 - Assure the contract documents require compliance with TMUTCD.
 - Specify devices from the [Compliant Work Zone Traffic Control Device List](#).
 - For all projects with federal funds, assure contract documents require compliance with TMUTCD. Assure compliance with the requirements of 23 CFR Part 630 by adoption of the administrative memorandum titled “Work Zone Safety and Mobility Guidelines,” issued on Nov. 20, 2008. This administrative memorandum is available from TxDOT district offices on TxDOT’s intranet system.

7.3.9.4 TxDOT District Responsibilities

- For projects with state or federal funds and all projects on the state highway system, the district will review the project for compliance with the “Work Zone Safety and Mobility Guidelines”. The district will prepare [Form 2229](#) and [Form 1002](#) and file them in the project records with the PS&E.
- For projects with state or federal funds and all projects on the state highway system, the district will review the PS&E to assure the TMP complies with TxDOT policy and [Part 6 of TMUTCD](#).
- For projects with a pass-through financing arrangement, the district will retain approval authority for all phases of this subject.

7.3.10 Temporary Traffic Control Devices

7.3.10.1 General

Federal regulations related to temporary traffic control devices are intended to reduce the likelihood of fatalities and injuries to road users and to workers who are exposed to motorized traffic (vehicles using the highway for purposes of travel) while working on federal-aid highway projects. The regulations are described in detail in the [LGPP Manual](#) and require LGs to establish processes, procedures and guidance to systematically consider the use of the following:

- *Positive protection devices* to prevent the intrusion of motorized vehicles into the work space and other hazardous areas of the work zone. The use of positive protection devices must be based on an engineering study. An engineering study may be used to develop general positive protection guidelines or to determine appropriate measures for an individual project. The engineering study should be based on consideration of factors and characteristics such as:
 - project scope and duration;
 - anticipated traffic speeds through the work zone;
 - anticipated traffic volume;
 - distance between traffic and workers, and extent of worker exposure;
 - escape paths available for workers to avoid a vehicle intrusion into the work space;
 - time of day (e.g., night work); and
 - other factors specific to the project or road conditions.

- *Exposure control measures* to avoid or minimize worker exposure to motorized traffic, and road user exposure to work activities. Examples of exposure control measures include:
 - full road closures;
 - ramp closures;
 - median crossovers;
 - full or partial detours or diversions;
 - protection of work zone setup and removal using rolling road blocks; and
 - performing work at night or during off-peak periods.

- *Uniformed law enforcement* and other traffic control measures to reduce work zone crashes. Each LG, in partnership with the FHWA, shall develop a policy addressing the use of uniformed law enforcement on federal-aid highway projects. The policy may consist of processes, procedures and guidance. In general, the need for law enforcement is greatest on projects with high traffic speeds and volumes, and where the work zone is expected to result in substantial disruption to or changes in normal traffic flow patterns. In addition, if law enforcement is used, they must be trained according to federal requirements. FHWA offers a course titled “Safe and Effective Use of Law Enforcement Personnel in Work Zones.” A promotional flyer and course materials are located on the [FHWA website](#). Specific project conditions should be examined to determine the need for or potential benefit of law enforcement, such as:
 - frequent worker presence adjacent to high-speed traffic without positive protection devices;
 - traffic control setup or removal presenting significant risks to workers and road users;
 - complex or very short-term changes in traffic patterns with significant potential for road user confusion or worker risk from traffic exposure;
 - night work operations that create substantial traffic safety risks for workers and road users;
 - existing traffic conditions and crash histories indicating a potential for substantial safety and congestion impacts related to the work zone activity, and that may be mitigated by improved driver behavior and awareness of the work zone;
 - work zone operations requiring brief stoppage of all traffic in one or both directions; and,

- other factors specific to the project or road conditions.
- *Safe exit and entry of work vehicles* into and out of the work area from the travel lanes. The agency processes, procedures and guidance should also address safe means for work vehicles and equipment to enter and exit traffic lanes, and for delivery of construction materials to the work space. The guidance should be based on individual project characteristics and factors.
- *Payment for traffic control features and operations* must not be incidental to the contract or included in payment for other items of work not related to traffic control and safety. Separate pay items must be provided for major categories of traffic control devices, safety features and work zone safety activities. Method-based specifications, unit price pay items, lump sum pay items or a combination thereof may be used. Specifications should include provisions to require and enforce compliance with implementation and maintenance of the project transportation management plan and related traffic control items.
- *Traffic control quality guidelines.* Each agency shall develop and implement quality guidelines to help maintain the quality and adequacy of the temporary traffic control devices for the duration of the project. A level of inspection necessary to provide ongoing compliance with the quality guidelines must be provided.

7.3.10.2 Required Practices

- Requirements of [23 CFR Part 630 Subpart K](#) and the administrative memorandum titled “Work Zone Safety and Mobility Guidelines,” issued on Nov. 20, 2008, apply to all projects with federal funds. This administrative memorandum is available from TxDOT district offices on TxDOT’s intranet system.

7.3.10.3 LG Responsibilities

- The LG must either adopt TxDOT’s program (contained in the administrative memorandum titled “Work Zone Safety and Mobility Guidelines,” issued on Nov. 20, 2008) or submit an alternate program for approval.
- The LG must include bid items for traffic control features and operations and, if used, law enforcement in the bid documents.
- Personnel involved in the development, design, implementation, operation, inspection and enforcement of work zone-related transportation management and traffic control will be trained, appropriate to the job decisions each individual is required to make.
- Uniformed officers providing work zone traffic service shall be trained for the service performed through TxDOT-approved training. Uniformed officers must provide a current certificate indicating completed training to the TxDOT project manager.

- Law enforcement activities, including uniformed officers, required by the LG will be paid in accordance with an appropriate statement in the project specifications ([Article 9.7, “Payment for Extra Work and Force Account Method”](#) if TxDOT standard specifications are used).
- The LG must monitor contractor compliance with the work zone traffic control program.

7.3.10.4 TxDOT District Responsibilities

- If the LG submits an alternate program to TxDOT’s temporary traffic control program, the district must review the program for compliance with the applicable regulations.
- For projects with federal funds, the district must review the bid documents for the required provisions.
- For projects with federal funds, the district must ensure the LG maintains the quality and adequacy of the temporary traffic control devices.

7.3.11 Traffic Signal Warrants

7.3.11.1 General

A comprehensive investigation of traffic conditions and characteristics of potential signal locations is necessary to determine the need for signal installations and to collect data for the design and operation of signals. Traffic control signals should not be installed unless the investigation reveals that at least one of the warrants contained in the [TMUTCD](#) is met. Meeting a warrant(s) is only the first step to justifying a traffic signal. TMUTCD states that engineering judgment is required and that all factors should be considered when determining if a traffic signal should be installed. Even if a traffic signal is warranted, the signal does not have to be installed. TxDOT’s procedure for evaluating traffic signals is contained in TxDOT’s [Traffic Signals Manual](#). The [LGPP Manual](#) lists the federal and state laws and codes regulating to traffic signals.

7.3.11.2 Required Practices

- For all projects with state or federal funds, or all projects on the state highway system regardless of funding, the LG must meet warrants for traffic signals in accordance with TxDOT’s [Traffic Signals Manual](#) and TMUTCD. The traffic signal authorization request and supporting information must be submitted to TxDOT for approval.

7.3.11.3 LG Responsibilities

- For design-bid-build projects with state or federal funds, or on the state highway system regardless of funding source, the LG must:
 - conduct traffic study using information in TxDOT’s [Traffic Signals Manual](#);

- meet signal warrants;
 - coordinate with local agencies as appropriate; and
 - submit the completed traffic signal authorization request to TxDOT for approval.
- For design-build projects with state or federal funds, or on the state highway system regardless of funding source, the LG must follow the same process except as modified by agreement with TxDOT.

7.3.11.4 TxDOT District Responsibilities

- For projects with state or federal funds, or all projects on the state highway system regardless of funding, the district must review the LG's traffic study for compliance with the [Traffic Signals Manual](#). Approval of the traffic signal authorization request is by the TxDOT district engineer.

7.4 Design – Bridges and Structures

7.4.1 Overview

The project development staff at the TxDOT district office is the primary contact point for the LG on bridge projects and for structural elements on other projects. If the LG is required to submit PS&E for TxDOT review and approval, the LG will transmit the PS&E to TxDOT district office staff. The district is responsible to coordinate with BRG and DES, as necessary, for PS&E review and approval. For this reason, the LG will not usually work directly with BRG or DES, unless specific technical issues need to be resolved.

BRG develops policies, standards, manuals and guidelines for the design, construction, maintenance and inspection of the state bridge system. BRG oversees and manages the state bridge inspection program for more than 53,000 on-system and off-system bridges in Texas. BRG personnel provide TxDOT districts with in-house expertise in all aspects of bridge project development, programming, design (structural and geotechnical), PS&E review, construction, maintenance and inspection. The [Bridge Project Development Manual](#) provides information pertaining to policies and guidelines for the development of bridge projects.

BRG administers the federal bridge funding programs in Texas. For projects funded under the [National Highway Performance Program](#) or the [Surface Transportation Block Grant Program](#), the LG must work through the TxDOT district office to obtain approval from BRG for the scope of the project prior to further development of the layout. Once the scope is approved and the layout is developed, the LG must submit the project through the district office to BRG for preliminary layout review. BRG will verify the guidelines have been met and will determine if the entire project, or a portion of the project, is eligible for federal funds. At this point discrepancies between the scope of the project and the guidelines for federal funding will be identified and corrected, or an obligation for additional funds will be required of the LG and the agreement amended to indicate the revised estimate. The development of the project may then proceed for submission and final PS&E review.

TxDOT performs routine inspections on all publicly owned vehicular bridges at regular intervals not to exceed 24 months, or not to exceed 48 months when adhering to FHWA approval criteria. Bridges requiring an underwater inspection are inspected at regular intervals not to exceed 60 months, or not to exceed 72 months when adhering to FHWA underwater criteria. Fracture critical members are inspected at regular intervals not to exceed 24 months. If the structure is owned by a LG, it is the responsibility of the LG to provide traffic control during bridge inspection operations. TxDOT will provide all equipment and engineering expertise necessary for performing bridge inspections.

7.4.2 Bridge Design

7.4.2.1 General

Bridge design is defined as the steps used to develop a project in compliance with both geometric design criteria and construction quality standards. State and federal regulations require TxDOT manuals, procedures, standards and guidelines be followed for all bridges

designed and subsequently built on the state highway system and national highway system. FHWA has accepted TxDOT's [Roadway Design Manual](#) and [Bridge Design Manual - LRFD](#) (load and resistance factor design) as complying with federal regulations. Bridges off the state highway system built with no state or federal funds may be designed in accordance with standards adopted by the LG. The [LGPP Manual](#) lists the federal and state requirements related to bridge design.

7.4.2.2 Required Practices

- For all projects with state or federal funds, or all projects on the state highway system or the national highway system regardless of funding source, the LG must:
 - follow the provisions of TxDOT's [Bridge Design Manual - LRFD](#) and [Bridge Detailing Guide](#);
 - receive FHWA approval if alternate criteria are proposed for a project on the national highway system but off the state highway system (the criteria must meet AASHTO LRFD Bridge Design Specifications, 8th edition with 2018 interim revisions);
 - incorporate TxDOT's [bridge standard drawings](#) to the maximum extent practical; and
 - use TxDOT standard specifications and material requirements, including required special provisions. The LG may request TxDOT approval of alternate specifications.

7.4.2.3 LG Responsibilities

- For projects with state or federal funds, or all projects on the state highway system or national highway system regardless of funding source, the LG must:
 - develop bridge designs in accordance with applicable TxDOT manuals and approved bridge layout;
 - propose alternate criteria meeting AASHTO LRFD Bridge Design Specifications if desired for projects on the national highway system and off the state highway system; and
 - submit final bridge plans to TxDOT with the PS&E.

7.4.2.4 TxDOT District Responsibilities

- For all projects with state or federal funds, or all projects on the state highway system regardless of funding source, the district must review the final PS&E for compliance with the approved bridge layout, the TxDOT [Bridge Design Manual - LRFD](#) and standard drawings and specifications.

- The district will review and approve the final PS&E. The district may consult with DES and BRG if desired.
- For projects with a pass-through financing arrangement, the district has approval authority but may request assistance from BRG as needed.

7.4.3 Bridge Layouts

7.4.3.1 General

Bridge layouts depict proposed features of a structure and are used to obtain early approval before beginning detailed bridge design. A checklist of information to be shown on bridge layouts and samples of bridge layouts are contained in TxDOT's [Bridge Detailing Guide](#). The [LGPP Manual](#) lists the state code regulating the submission of bridge layouts.

7.4.3.2 Required Practices

- For all projects with state or federal funds, or all projects on the state highway system regardless of funding source, the LG must develop and submit preliminary bridge layouts to TxDOT for approval before detailed design (approximately 30% design completion). Bridge layouts must comply with TxDOT's [Bridge Detailing Guide](#) and [Bridge Design Manual - LRFD](#).
- For projects off the state highway system but connecting to or crossing the state highway system, a regional mobility authority (RMA) must develop and submit preliminary bridge layouts to TxDOT for approval before detailed design (approximately 30% design completion). Bridge layouts must comply with TxDOT's [Bridge Detailing Guide](#).

7.4.3.3 LG Responsibilities

- For projects with state or federal funds, all projects on the state highway system regardless of funding source and all projects off the state highway system but connecting to or crossing a state highway, the LG must:
 - submit bridge layouts to TxDOT for approval; subsequent changes to the bridge layout must also be submitted for TxDOT approval; and
 - submit final bridge plans to TxDOT with the PS&E.

7.4.3.4 TxDOT District Responsibilities

- For projects requiring the LG to submit bridge layouts, the district must submit the layout to BRG for review.

7.4.4 Design of Other Structures

7.4.4.1 General

State and federal regulations require TxDOT manuals, procedures, standards and guidelines be followed for all other types of structures designed and subsequently built on the state highway system. Common types of structures include retaining walls, sound walls, culverts, junction boxes, manholes, signs, light and signal poles, etc. Other structures off the state highway system built with no state or federal funds may be designed in accordance with standards adopted by the LG. The [LGPP Manual](#) describes the state and federal regulations relating to the design of structures under TxDOT oversight.

7.4.4.2 Required Practices

- For all projects with state or federal funds, or all projects on the state highway system regardless of funding source, the LG must:
 - follow the provisions of applicable TxDOT manuals, procedures, standards and guidelines;
 - use TxDOT standard specifications and material requirements, including required special provisions; the LG may request TxDOT approval of alternate specifications;
 - furnish retaining wall layouts to TxDOT as part of the 30% preliminary design submission; and
 - adopt TxDOT standard specification items related to retaining walls and other structures, including submission of working drawings, when required.

7.4.4.3 LG Responsibilities

- For projects with state or federal funds, or all projects on the state highway system or national highway system regardless of funding source, the LG must:
 - develop designs for non-bridge structures in accordance with applicable TxDOT manuals;
 - propose alternate criteria if desired for projects on the national highway system and off the state highway system; and
 - submit final plans to TxDOT with the PS&E.

7.4.4.4 TxDOT District Responsibilities

- For all projects with state or federal funds, or all projects on the state highway system regardless of funding source, the district must review the final PS&E for compliance with TxDOT manuals and with standard drawings and specifications.
 - The district will review and approve the final PS&E. The district may consult with DES and BRG if desired.

- For projects with a pass-through financing arrangement, the district has approval authority but may request assistance from DES and BRG as needed.

7.4.5 Geotechnical

7.4.5.1 General

Geotechnical studies are performed primarily for pavement design and structures (i.e., bridges, retaining walls, etc.) and for excavation and embankment stability evaluation. TxDOT practices are contained in TxDOT's [Geotechnical Manual](#). The [LGPP Manual](#) provides the state statutes pertaining to geotechnical studies.

7.4.5.2 Required Practices

- For design-bid-build projects with state or federal funds, or all design-bid-build projects on the state highway system regardless of funding source, the LG must:
 - conduct geotechnical investigations in conformance with TxDOT's [Geotechnical Manual](#); and
 - follow the design recommendations in TxDOT's [Geotechnical Manual](#).
- For design-build projects with state or federal funds, or all design-build projects on the state highway system regardless of funding source, the LG must follow the recommendations in TxDOT's [Geotechnical Manual](#) except as modified by agreement with TxDOT.

7.4.5.3 LG Responsibilities

- For projects with state or federal funds, or all projects on the state highway system regardless of funding source, the LG must perform geotechnical studies in compliance with TxDOT's [Geotechnical Manual](#).
- If TxDOT's [Geotechnical Manual](#) does not address all items within the project scope, the LG must propose an alternative standard and seek approval from TxDOT.

7.4.5.4 TxDOT District Responsibilities

- For projects with state or federal funds, or all projects on the state highway system regardless of funding source, the district must review the LG's geotechnical studies received along with 30% submission for compliance with TxDOT policy. Districts may request assistance from BRG and DES as needed. For all projects, approval authority is at the district level.

7.4.6 Scour

7.4.6.1 General

Scour is the result of the erosive action of flowing water excavating and carrying away material from the bed and banks of streams. Potential scour can be a significant factor in the analysis of a stream crossing system. The design of a crossing system involves an acceptable balance between a crossing that is economical and provides the required traffic service and one that provides a sufficient water opening that will not cause upstream damage due to backwater nor damage at the crossing from scour. TxDOT practices are contained in TxDOT's [Geotechnical Manual](#). The [LGPP Manual](#) provides the federal and state regulations related to scour analysis.

7.4.6.2 Required Practices

- For projects with state or federal funds, or all projects on the state highway system regardless of funding source, the LG must perform a scour analysis for all new, replacement or widened bridges. For design-bid-build projects, the scour analysis and report must comply with TxDOT's [Geotechnical Manual](#) and [Hydraulic Design Manual](#), and must be sent to TxDOT as part of the preliminary bridge layout. If the scour analysis shows the structure is scour critical, the LG should work with TxDOT to develop a scour plan of action for the structure.

7.4.6.3 LG Responsibilities

- For design-bid-build and design-build projects with state or federal funds, or all projects on the state highway system regardless of funding source, the LG must perform a scour analysis in compliance with TxDOT's [Geotechnical Manual](#) and submit to TxDOT for approval.

7.4.6.4 TxDOT District Responsibilities

- For all projects, the district must furnish the latest bridge inspection data to the LG.
- For all projects requiring submission of a preliminary bridge layout, the district should review the analysis and report for conformance with the applicable standard and submit to BRG for approval.
- For projects with a pass-through financing arrangement, the district approves the layout and report but may contact BRG for assistance as needed

7.5 Design - Building Facilities

7.5.1 Overview

LGs may be involved in the construction of buildings with TxDOT. The Roadway Facilities group in the Maintenance Division (MNT) in Austin is responsible for the review of all architectural and engineering PS&E for building projects on the state highway system or built with state or federal funds. Examples of LG projects involving buildings include emergency operations centers, rest areas, park buildings and transportation museums.

7.5.2 Architectural and Engineering Standards

Architectural and engineering standards, including structural, mechanical, electrical, plumbing and civil (SMEPC), are set forth in TxDOT's [Facility Design Standards and Production Guidelines](#). Typically, building projects are bid as a lump sum price, and the contractor provides the owner a schedule of values that will be used for payment. TxDOT specification may not be the best fit for architectural projects, and alternate specifications may be most appropriate. TxDOT approval of alternate specifications is required. For contracting, refer to [Chapter 9 - Construction](#) of this Guide. For federally funded projects, the LG will be required to follow federal guidelines (see the [LGPP Manual](#)). Note that many contracting practices associated with architectural/building projects may not be allowed by federal rules or state law. If alternate contracting methods (such as construction manager at-risk, turn-key construction or others) are proposed, the LG must demonstrate they are allowable for the intended project, submit a request to TxDOT and receive TxDOT approval for the proposed contracting method.

7.5.3 Progress Reviews

In addition to architectural and engineering SMEPC documents, the Roadway Facilities group will also perform progress reviews related to other building systems it reviews and approves for compliance with TxDOT facility standards and guidelines.

Project documents are to be provided for review at the schematic (15% complete), design development (50% complete), and construction document plans and specifications (95% complete) phases. These documents are transmitted to the Roadway Facilities group from the TxDOT district offices. In most cases, the LG will not work directly with the Roadway Facilities group, unless specific issues need to be resolved and direct communication is required.

For the maintenance of buildings, a section must be placed in the comprehensive maintenance management agreement (CMMA) discussed in [Chapter 10](#) of the Manual. This section of the CMMA must contain standards for building upkeep and maintenance program, including preventive and routine maintenance, and essential repair planning. Building inspections should be made at the appropriate intervals to determine maintenance needs.

7.6 Bid Document Preparation

7.6.1 Overview

Bid documents include the PS&E developed to describe all of the elements of a construction project and become the contract between the LG and the selected contractor. The following sections list the applicable federal and state provisions associated with each bidding or contracting component with a brief description of the required practices associated with each.

As previously described in this Chapter, LG projects with state or federal funds or located on the state highway system must adopt the latest TxDOT Standard Specifications, Special Specifications and Special Provisions, or request written approval from TxDOT of alternate, equivalent specifications. TxDOT has developed templated versions of certain contract documents (Items 1L-9L) to assist the LG in properly addressing requirements as listed below. More information regarding the use of these templates can be found in the [LGP Workbook](#).

7.6.2 Submittal of PS&E Documents

7.6.2.1 General

PS&E are prepared by the LG and submitted to the TxDOT district for review and approval. On most projects, it is recommended the PS&E be submitted at several stages in the project, reflecting the 30%, 60% and 90% completion phases, in order to receive TxDOT (and FHWA, when required) concurrence during development of the design aspects of the project. For less complex projects, the TxDOT district may allow for fewer submittals.

The 30% complete design is submitted in the Preliminary Engineering and Design phase. The 60% and 90% complete designs are submitted in the PS&E Development phase. Upon final submittal, the PS&E and bid documents are reviewed and approved by TxDOT and a SLOA and FPAA, if required, are issued, which allow advertising of the construction phase of the project. The district or division managing the AFA should also ensure the collection of the agreed-upon funds for this phase of the project from the LG in accordance with the terms of the AFA. The [LGPP Manual](#) provides the state and federal requirements related to the submittal of bid documents.

7.6.2.2 Required Practices

- For construction projects requiring TxDOT approval, the final PS&E must be submitted to TxDOT at least 20 weeks prior to the proposed letting date. The time frame for LG submission of the PS&E to TxDOT may be less than 20 weeks prior to the proposed letting date, if agreeable to the TxDOT district.
- The format and content of the PS&E will be as described in [TxDOT's PS&E Preparation Manual](#).
- Submit as shown in TxDOT's [Form 1002](#), available as a fillable PDF document on the TxDOT website.

7.6.2.3 LG Responsibilities

- For all projects with state or federal funds, or all projects on the state highway system regardless of funding source, the LG must:
 - submit PS&E and bid documents to the TxDOT district at least 20 weeks prior to the proposed letting date unless the TxDOT district has approved a shorter time frame;
 - obtain TxDOT approval of the final PS&E (including contract documents) before advertising the project for receipt of bids (design-bid-build); and
 - obtain TxDOT approval of the request for proposals prior to release (design-build).

7.6.2.4 TxDOT District Responsibilities

- For projects with state or federal funds, or all projects on the state highway system regardless of funding source, the district must:
 - review and approve the PS&E submittal for all required specifications and bidding documents;
 - coordinate with FIN-Letting Management for preparation and execution of the SLOA and FPAA;
 - coordinate with FHWA on [major projects](#) [greater than \$500 million or a project with a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan at any amount], Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant Projects and other FHWA projects of division interest (PoDIs) that FHWA has retained project authorization approval action; and
 - deliver executed SLOA and FPAA to the LG.

7.6.3 Bonding

7.6.3.1 General

A LG may include provisions for bid guaranties or bonds, or warranty bonds, in invitations for receipt of bids. Bonding is grouped into six basic classifications: bid bonds; performance bonds; payment bonds; retainage bonds; warranty bonds; and maintenance bonds.

- A *bid bond*, or proposal guaranty, is a bond, certified check, cashier's check or other negotiable instrument submitted with the bid as assurance the bidder will, upon acceptance of his bid, execute such contractual documents as may be required within the time specified.
- A *performance bond* is a bond executed in connection with a contract to assure fulfillment of all the contractor's obligations under the contract.

- A *payment bond* is a bond executed in connection with a contract to assure payment, as required by law, to all persons supplying labor and material in the execution of the work provided for in the contract.
- A *retainage bond* is a bond executed in connection with a contract to assure any monies owed to the owner by the contractor are recoverable (a retainage bond is used instead of actually withholding a percent of the contractor's payments).
- A *warranty bond* is a bond executed in connection with a contract to assure a warranted item survives the warranty period in the prescribed condition.
- A *maintenance bond* is a bond that a surety company issues guaranteeing repayment to the project owner in case a project or a portion of a project fails to work properly after a certain specified period of time. Under federal rules, maintenance activities, including a maintenance bond, are not eligible for reimbursement by FHWA.

The [LGPP Manual](#) provides the federal and state rules and regulations related to the bonding of contractors.

7.6.3.2 Required Practices

- All Texas governmental entities have applicable state statutes requiring contractors to execute bonds. The type of the bond may vary, but all provide that the bond be issued by a surety company authorized to do business in Texas. When state or federal funds participate in the contract, TxDOT wants assurance that its funds are protected. Accordingly, the LG must either adopt TxDOT's bonding process, as described in [Item 2L of TxDOT's LG Standard Specifications](#), or submit its own process for TxDOT approval if the project has state or federal funds in any amount.
- For projects without any state or federal funds, the LG is expected to follow the applicable statutes related to bonding.
- For projects both on and off the state system, TxDOT will neither review and approve the bonding processes nor monitor the implementation.

7.6.3.3 LG Responsibilities

- The LG should have procedures or policies to bond contractors that meet the state and local requirements.
- The LG must include appropriate bonding requirements in its contract documents.

7.6.3.4 TxDOT District Responsibilities

- For projects with state or federal funds, the district must obtain a copy of the LG bonding process and review to verify for compliance. The district must submit questions and non-compliance issues to TxDOT's Local Government Programs Section (LGP). LGP will work with other divisions and offices within TxDOT for final determination and provide guidance to the district. If the bond requirements are different than TxDOT's, the district must submit the bond procedures and requirements to LGP for concurrence. LGP will work with other divisions and offices within TxDOT and provide guidance to the district.
 - Design-bid-build: For projects with state or federal funds, the district must assure the bonding provisions are in the specifications before approving the PS&E.
 - Design-build: For projects with state or federal funds, the district must assure the request for proposals contains language requiring the successful proposer to provide a performance and payment bond or an alternative form of security.

7.6.4 Buy America

7.6.4.1 General

The LG must comply with the latest provisions of Buy America as listed at [23 CFR 635.410](#). The LG is required to use steel or iron materials manufactured in the United States, except when:

- the cost of materials, including delivery, does not exceed 0.1% of the total contract cost or \$2,500, whichever is greater;
- the contract contains an alternate item for a foreign source steel or iron product and the contract is awarded based on the alternate item; or
- the materials are temporarily installed.

7.6.4.2 Manufacturing Process

Buy America requires all manufacturing processes to take place domestically. Manufacturing begins with the initial melting and mixing, and continues through the coating stage. Any process that modifies the chemical content, the physical size or shape, or the final finish is considered a manufacturing process. These processes include rolling, extruding, machining, bending, grinding, drilling and coating.

- Coating includes epoxy coating, galvanizing, painting or any other coating that protects or enhances the value of the material.
- Shapes produced domestically from foreign source steel billets are not acceptable under Buy America since the initial melting and mixing of alloys to create the steel occurred in a foreign country.

- All welding must take place domestically.
- The manufacturing process for a steel/iron product is considered complete when the product is ready for use as an item (e.g., fencing, posts, girders, pipe, manhole cover, etc.) or could be incorporated as a component of a more complex product through a further manufacturing process (e.g., the case for a traffic signal head).
- The final assembly process does not need to be accomplished domestically so long as the steel/iron component is only installed and no manufacturing process is performed on the steel/iron component.

7.6.4.3 Application of Buy America

Buy America does not apply to minimal use of iron/steel materials, provided the total cost of all foreign source items used in the project, as delivered to the project site, is less than \$2,500 or one-tenth of 1% of the contract amount, whichever is greater. If a supplier or fabricator wishes to use a partial fabrication process where domestic and foreign source components are assembled at a domestic location, the “as delivered cost” of the foreign components should include any transportation, assembly and testing costs required to install them in the final product.

For the Buy America requirements to apply, the steel or iron product must be permanently incorporated into the project. Buy America does not apply to temporary steel items (e.g. temporary sheet piling, temporary bridges, steel scaffolding and falsework, etc.). Further, Buy America does not apply to materials remaining in place at the contractor’s convenience.

The practice of making otherwise eligible items non-participating for the purpose of circumventing the Buy America requirements is unacceptable and will not be approved. There is no clear-cut rule for resolving an after-the-fact discovery of the inadvertent incorporation of an excess amount of foreign materials into a project. Each situation should be resolved on a case-by-case basis. FHWA retains the authority to resolve all Buy America issues.

Buy America provisions apply to all material permanently incorporated in a federal-aid project, even if an item is rendered as “donated material” in accordance with [23 U.S.C. 323 - Donations and Credits](#). While the LG may receive a credit for donated material, this material must generally comply with Buy America.

7.6.4.4 Waivers

Buy America does not apply to raw materials (iron ore and alloys), scrap, pig iron, or processed, pelletized and reduced iron ore. Insufficient domestic supplies of raw materials caused FHWA to issue a nationwide waiver allowing foreign source supplies of these items. The waiver may be found on the [FHWA website](#). If domestically produced steel billets or iron ingots are shipped overseas for any manufacturing process and then returned to the United States, the resulting product does not conform to the Buy America requirements.

Approval authority for waivers of Buy America requirements is retained by FHWA for all federally funded projects. FHWA may grant a waiver of the Buy America requirements for specific projects if the LG can demonstrate either of the following:

- compliance with the requirements is inconsistent with the public interest; or
- insufficient quantities of satisfactory, quality domestic products are available.

Materials delivery delay will not be considered as grounds for a waiver. The cost differential between domestic and foreign products is also not grounds for a waiver.

A LG may apply for a waiver of the Buy America provisions if it believes a waiver is warranted. The LG must submit the waiver request with supporting information through TxDOT to FHWA sufficiently in advance of need to allow time for proper review and action.

7.6.4.5 Alternative Bidding Procedures

An alternative bidding procedure may be used to justify the use of foreign steel or iron. Under this procedure, the total project is bid using two alternatives: one based on foreign source products; and the second using domestic products. The use of foreign products may be justified if the lowest total bid based on domestic steel or iron products is 25% more than the lowest bid using corresponding foreign steel or iron products. The 25% differential applies to the total bid for the entire project, not just the bids for the steel or iron products.

7.6.4.6 Enforcement

The LG is responsible for enforcing the Buy America provisions. The contract provisions should require the contractor to provide a definitive statement about the origin of all products covered under the Buy America provisions. An alternate procedure is to use step certification for products. Under step certification, each handler of the product (supplier, fabricator, manufacturer, processor, etc.) certifies that its step in the process was domestically performed.

The [LGPP Manual](#) lists the federal and state requirements for compliance with Buy America.

7.6.4.7 Required Practices

- Projects with federal funds must comply with the Buy America statute.
- Projects without federal funds must comply with the Buy Texas provision included in [Item 6L of the TxDOT LG Standard Specifications](#).

7.6.4.8 LG Responsibilities

- If federal funds are used in the project, any requests for waivers must be prepared by the LG and submitted through TxDOT to FHWA for approval prior to advertisement for receipt of bids.

- If federal funds are used or if the project is awarded by TxDOT, the LG must include contract provisions addressing Buy America.

7.6.4.9 TxDOT District Responsibilities

- The district must assure Buy America provisions are included in all LG procurement documents for federally funded projects.

7.6.5 Changes in the Work

7.6.5.1 General

The construction industry recognizes it is unrealistic to expect a construction project to be built without deviating from the project plans. Project designers should be diligent and exercise due care in developing the plans. However, there are many peculiarities (e.g., unforeseen site conditions, utility conflicts, changes in the geology, etc.) that can arise during construction, and every project should anticipate the potential need for changes. Only the construction engineer is in a position to judge the adequacy of project designs and respond to needed changes.

For a project involving an agreement between a LG and TxDOT, TxDOT must formally concur with proposed major extra work or major changes in the contract plans and provisions before work begins. However, when emergency or unusual conditions justify, TxDOT may give advance verbal concurrence and formally confirm as soon as practical. Non-major changes and non-major extra work also require formal concurrence. However, such concurrence may be given retroactively at TxDOT's discretion. More information on how to implement a change order during construction is discussed in [Chapter 9](#).

The LG, with TxDOT district concurrence, should establish and document specific parameters for non-major change and non-major extra work. The definition of a major change is a change that:

- reduces the geometric design or structural capacity below project design criteria (any reduction in geometric design that would normally have required a design exception);
- increases the contract by 25% of the original contract or by \$300,000, whichever is less;
- changes project limits;
- involves any change in the TCP reducing the capacity as shown on the plans for the through traffic or the traffic on major cross streets;
- involves the settlement of a dispute; or
- changes the access on a controlled access highway.

7.6.5.2 Required Practices

- The bid documents must include language that discusses how changes in the work are to be managed by the contractor. It is recommended that the LG adopt TxDOT's LG Standard Specification [Item 4L](#) to incorporate the appropriate required language.
- Federal code requires that states establish and document policies, procedures, and contract provisions that identify when Value Engineering Change Proposals (VECP) may be used. TxDOT does not have VECP policies or procedures in place and, therefore, VECP cannot be used on projects.

7.6.5.3 LG Responsibilities

- The LG must adopt TxDOT's LG Standard Specification [Item 4L](#), or preapproved alternative which discusses the process for managing changes in the work in the bid documents.
- VECP language cannot be incorporated nor included in bid documents.

7.6.5.4 TxDOT District Responsibilities

- The TxDOT district must verify that the appropriate language has been incorporated into the bid documents which discusses the process for managing changes in the work.
- Ensure VECP language is not incorporated nor included in bid documents.

7.6.6 Child Support Statement

7.6.6.1 General

For all LG projects, the contractor must certify the business entity is not ineligible due to the requirements for child support included in the Texas Family Code. In accordance with [Texas Family Code §231.006](#), a contractor's bid for a contract must include the name and Social Security number of the individual or sole proprietor, and each partner, shareholder or owner with an ownership interest of at least 25% of the business entity submitting the bid. The following language must be included in the bid document verbatim:

“Under Section 231.006, Family Code, the vendor or applicant certifies that the individual or business entity named in this contract, bid, or application is not ineligible to receive the specified grant, loan, or payment and acknowledges that this contract may be terminated and payment may be withheld if this certification is inaccurate.”

Failure to submit the required information with a bid makes it non-responsive and ineligible for award. If the LG determines an individual or business entity awarded the contract is ineligible to receive payment, the contract may be terminated. In addition, if the required certification listed above is shown to be false, the contractor is liable to the LG for attorney's fees, the costs necessary to complete the contract, including the cost of advertising and awarding a second contract, and any other damages provided by law or contract.

The [LGPP Manual](#) lists the state law regulating the requirements for documenting child support.

7.6.6.2 Required Practices

- All projects with federal or state funds must meet state statutory requirements.

7.6.6.3 LG Responsibilities

- The LG must include the certification required by [Texas Family Code §231.006](#) in all bid documents. In addition, the LG must collect the name and Social Security number of all affected contractor owners of each bidder as required by Texas Family Code §231.006. Upon execution of a contract with the successful bidder, the LG must maintain ownership information for the successful bidder but may destroy this information for each unsuccessful bidder.

7.6.6.4 TxDOT District Responsibilities

- For projects with state or federal funds, the district must assure the certification and business ownership information is included in proposals and requests for proposals, as appropriate.

7.6.7 Claims

7.6.7.1 General

A claim is a continued demand for payment by a contractor if it has been previously denied under the LG's normal procedures for change order approval. Both the LG and the contractor share in the responsibility for claims. The [LGPP Manual](#) lists the state and federal requirements relating to the processing of claims.

7.6.7.2 Required Practices

- Claims on projects with federal or state funds must be approved by TxDOT to determine TxDOT participation. Failure to coordinate with TxDOT before settling the claim will jeopardize TxDOT participation. TxDOT participation in claims will be governed by the type and extent of state or federal funding. Details regarding possible scenarios are discussed in Chapter 9 - Construction of this [Guide](#).

- For projects with state or federal funds, TxDOT follows [FHWA's Texas Division policy guidance](#) for participation. Participation in claims is NOT permitted for additional costs for delays in purchasing right of way or adjusting utilities. Participation is also not permitted for the cost to correct design errors. Further, claims must be supported by the facts, must have a basis in the contract and must be settled under applicable statutes.
- For design-build projects, the likelihood of a claim is greatly reduced since the designer is also the constructor.

7.6.7.3 LG Responsibilities

- The LG must include language in the contract outlining conditions for when a claim may be filed in accordance with required practices.
- The LG must keep TxDOT involved in the process of settling claims if it anticipates requesting state or federal participation in settlement costs.
- Any hearing associated with a contract claim must be conducted in accordance with [Texas Government Code Chapter 2001 Subchapter C](#).

7.6.7.4 TxDOT District Responsibilities

- For projects with state or federal funds, the district must review the procurement documents for inclusion of conditions of when a claim may be filed.
- The district will monitor compliance with claim procedures.

7.6.8 Contract Time

7.6.8.1 General

The term of the contract is an important part of every construction project. Too little contract time may result in higher construction costs, while too much contract time may encourage inefficiencies, increased user costs, and potential delays and inconvenience to the public.

The LG must have an acceptable procedure for determining contract time. This procedure should include a comparison of the actual construction time against the estimated completion time for several projects to ascertain whether the procedures result in appropriate contract times. The goal should be to strive for the least practical number and duration of traffic interruptions during highway construction.

The appropriate method of charging contract time is also an important component. The LG may adopt a contract time charge method using TxDOT's [LG Standard Specification Item 8L](#), or submit an alternative for TxDOT approval. This language should provide a clear understanding to the bidders how time charges will be assessed during construction.

The [LGPP Manual](#) describes the federal and state requirements for determining contract time for a project.

7.6.8.2 Required Practices

- Where required by federal regulations, the LG should gain TxDOT concurrence that its contract time determination process is adequate. This should occur during the development of the PS&E.

7.6.8.3 LG Responsibilities

- For federal-aid design-bid-build projects, the LG must provide TxDOT with the documentation on the method used for its project time determination. Issuance of an SLOA will indicate TxDOT concurrence with the proposed project time.
- For design-bid-build projects, the LG must assign an appropriate method for charging time for work performed during construction and include this language in the bid documents.
- For design-build, contract time is normally one of the factors in considering proposals.

7.6.8.4 TxDOT District Responsibilities

- For federally funded design-bid-build projects, the district must review the LG's time determination process and concur that the process is adequate. If needed, the district should request assistance from DES.

7.6.9 Debarment Certification

7.6.9.1 General

Contractors are not allowed to participate in federally funded projects if they are suspended or debarred by the U.S. General Services Administration (GSA), another federal agency or a state agency. The contractor is required to certify as to its current eligibility status.

Certification is also required of all prospective participants in lower-tier transactions. This includes subcontractors, material suppliers, vendors, etc. Each participant must certify:

“... that it and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency ... and that they have not been convicted or had civil judgment rendered within the past three years for certain types of offenses.”

GSA has the responsibility to compile, maintain and distribute the list of suspended and debarred parties excluded from all federal procurement and non-procurement programs. The GSA list is distributed to all FHWA field offices and is provided to TxDOT to assure the suspended or debarred parties are not awarded federal-aid highway projects. GSA's list of

debarred firms (excluded parties list) may be accessed on the [System for Award Management](#) website.

The state of Texas has similar requirements prohibiting contracts with debarred contractors. The state's list of debarred firms (Comptroller's list) may be accessed on the Comptroller's [Vendor Performance Tracking System](#) Web page.

The [LGPP Manual](#) lists the federal and state regulations related to debarment certification.

7.6.9.2 Required Practices

- For all projects, the LG must check the current list of debarred contractors and suppliers on both the federal excluded parties list (maintained by GSA) and the Texas Comptroller's website before awarding any contracts or approving any subcontracts. The LG should maintain documentation in the project files.
- Bid documents for federally funded projects must include the verbatim certification required by the regulations ([Form FHWA-1273](#)).

7.6.9.3 LG Responsibilities

- If the LG has a process for pre-qualifying bidders, the LG should ensure plans and specifications are not furnished to federal suspended or debarred bidders or TxDOT debarred bidders.
- The LG must include the certification ([Form FHWA-1273](#)) in all bid documents for projects with federal funds.
- The LG must check for the contractor's certification as part of the bid opening process.
- The LG must check the federal and state lists to verify the apparent low-bidder is not debarred prior to awarding the contract. The LG must check proposed subcontractors against federal suspended or debarred and Texas debarred lists. The LG must document in its project files that it has verified the contractor and subcontractors are not debarred.

7.6.9.4 TxDOT District Responsibilities

- For design-bid-build and design-build projects with state or federal funds, the district must:
 - check the bid proposal or the request for proposals to assure the certification is part of the package;
 - obtain verification from the LG that the bidder to which the contract is to be awarded is not on the debarred bidders list;

- spot check subcontractors on the project against the debarred bidders list (submit questions and non-compliance issues to LGP for guidance); and
- document in its project files that it has verified the contractor is not debarred and that the LG has documented in its files that the contractor and subcontractors are not debarred.

7.6.10 Designated Material Sources/Disposal Sites

7.6.10.1 General – Material Sources

Most construction contracts require the contractor to furnish all materials to be incorporated into the work. However, the LG can either furnish materials or require the contractor to use designated sources of materials under certain conditions. FHWA policy requires that the contractor must furnish all materials to be incorporated in the work and the contractor shall be permitted to select the sources from where the materials are to be obtained. Exceptions to this requirement may be made when there is a definite finding by the LG, with concurrence by TxDOT, that it is in the public interest to require the contractor to use materials furnished by the LG or from sources designated by the LG. The exception policy can best be understood by separating LG-furnished materials into the categories of manufactured materials and local natural materials.

- *Manufactured Materials.* When the use of LG-furnished manufactured materials is approved based on a public interest finding, such use must be made mandatory. The optional use of LG-furnished manufactured materials is in violation of federal policy prohibiting public agencies from competing with private firms. Manufactured materials to be furnished by the LG must be acquired through competitive bidding, unless there is a public interest finding for another method with which TxDOT has concurred.
- *Local Natural Materials.* When the LG owns or controls a local natural materials source, such as a borrow pit or a stockpile of salvaged pavement material, the materials may be designated for either optional or mandatory use; however, mandatory use will require a public interest finding and TxDOT's approval. In order to permit prospective bidders to properly prepare their bids, the location, cost and any conditions to be met for obtaining materials that are made available to the contractor shall be stated in the bidding documents.

7.6.10.2 General - Mandatory Disposal Sites

Normally, the disposal site for surplus excavated materials is to be of the contractor's choosing; although, an optional site(s) may be shown in the contract provisions. A mandatory site shall be specified when there is a finding by the LG, with the concurrence of TxDOT, that such placement is the most economical or the environment would be substantially enhanced without excessive cost. Discussion of the mandatory use of a disposal site in the environmental document may serve as the basis for the public interest finding.

The [LGPP Manual](#) describes in detail the federal policy for the mandatory use of borrow or disposal sites and also describes the federal statute governing sources of material.

7.6.10.3 Required Practices

- For all federally funded projects, or all projects on the state highway system regardless of funding, TxDOT approves all specifications for materials to be incorporated in the project. This approval includes any mandatory materials sources and required disposal sites.

7.6.10.4 LG Responsibilities

- If the LG wants to furnish material to a contractor, designate a source of material for the contractor or require the contractor to use designated disposal sites, the LG must make a formal finding that it is in the public's interest to do so.
- The public interest determination must have TxDOT concurrence.
- The LG must submit materials specifications to TxDOT for approval, including any designated source.

7.6.10.5 TxDOT District Responsibilities

- For federally funded projects, the district must approve the LG's public interest request.
- For projects on the state highway system, the district will review and approve all materials specifications.

7.6.11 Differing Site Conditions

7.6.11.1 General

Due to the nature of highway construction and the conditions under which work is performed, designers cannot always accurately determine and describe the conditions existing at project sites. Consequently, actual conditions encountered during construction may differ from those indicated in the contract documents, resulting in a change in construction costs.

Situations may also develop during construction requiring the LG to order the contractor to slow down or stop construction through no fault of the contractor. These slowdowns or stoppages in the work may cause a change in construction costs. There also may be situations encountered during construction requiring the LG to make alterations to the design. In addition to changing the amount of contract work, such alterations could significantly affect the contractor's production costs. In accordance with federal regulations, differing site or changed condition clauses must be included verbatim in the contract.

In theory, the use of the standardized changed condition clause takes the risk of differing subsurface conditions out of the bidding process. Bidders need not consider the cost and difficulty of taking their own borings and compare that with the risk of a differing site

condition. They need not consider the amount of a contingency to be included in the bid. Theoretically, with a standardized changed condition clause, contractors will receive no windfalls nor suffer a disaster from a changed condition. The owner will benefit from more competitive bidding as the bidders will not inflate costs for risks that may not happen. The use of the standardized changed condition clause is also meant to provide uniformity across state lines.

The standardized changed condition clauses in [23 CFR 635.109\(a\)](#) must be included verbatim in all contracts. The regulation requires the use of three different clauses.

- *Differing Site Conditions Clause.* This clause provides for the adjustment of the contract terms if the contractor encounters:
 - subsurface or latent physical conditions that differ materially from those indicated in the contract; or
 - unknown physical conditions of an unusual nature that differ materially from those ordinarily encountered and generally recognized as inherent to the work.
- *Suspensions of Work Ordered by the Engineer [LG].* This clause provides for the adjustment of the contract terms if the performance of all or a portion of the work is suspended or delayed by the engineer (LG), in writing, for an unreasonable period of time (not originally anticipated, customary or inherent to the construction industry). The contractor is required to submit a request for adjustment, in writing, to the engineer (LG) within seven calendar days of receipt of the notice to resume work. Recovery of profit on costs resulting from suspensions of work is not allowed.
 - To qualify for an adjustment, suspensions must be for unreasonable periods and do not include brief, customary suspensions for reasons inherent to highway construction (i.e., material sampling and testing; approval of shop drawings, material sources, etc.; and other reasonable and customary suspensions necessary for the supervision of construction by the contracting agency).
 - In addition, an adjustment under this clause is not allowed if the work is suspended for other reasons or if an adjustment is provided for, or excluded, under other terms or conditions of the contract.
- *Material Changes in the Scope of the Work.* This clause provides for the adjustment of the contract terms if the engineer (LG) orders, in writing, an alteration in the work or in the quantities that significantly change the character of work. The term “significant change” shall be construed to apply only to the following circumstances:
 - the altered character of the work differs materially from that of the original contract; or

- a major item of work, as defined in the contract, is increased or decreased by more than 25% of the original contract quantity (adjustments shall apply only to that portion in excess of 125% of original contract quantity or, in case of a decrease, to the actual quantity performed).

This clause provides for adjustments resulting from formal change orders by the engineer (LG), in writing, to the extent that the impacted work is part of the contract. Both parties may initiate an adjustment and both must be in agreement before the work is performed. As with the suspension of work provision, this clause does not preclude the recognition of constructive suspensions or delays.

The [LGPP Manual](#) describes the federal and state requirements relating to the contract language for differing site conditions on a project.

7.6.11.2 Required Practices

- For all projects with federal or state funds, the LG is required to follow the same procedures for federally funded projects. This language minimizes risk to both the contractor and the administrator of the contract.

7.6.11.3 LG Responsibility

- For design-bid-build projects, the LG must ensure the contract language contained in [23 CFR 635.109\(a\)](#) is included verbatim in the bid document.
- For design-build projects, the LG must consider using applicable clauses appropriate to the relative risk of all parties.

7.6.11.4 TxDOT District Responsibilities

- For state and federally funded design-bid-build projects, the district must assure the verbatim language is in the bid proposal.

7.6.12 Disadvantaged Business Enterprise (DBE), Historically Underutilized Business (HUB), and Small Business Enterprise (SBE)

7.6.12.1 General

The federal and state programs for DBEs, HUBs and SBEs have been developed to encourage participation in the construction industry by a wide variety of contractors and, therefore, expand diversity in the industry.

All federal-aid projects are subject to the DBE requirements. The U.S. Department of Transportation (USDOT) must approve each state's DBE program and its annual goals to ensure compliance with all DBE program requirements. FHWA has determined a LG must

operate under TxDOT's DBE program even if its own program is already approved by USDOT. Participation in TxDOT's approved DBE program is accomplished by Article 27 in the AFA executed by both parties. LGs are encouraged to contact TxDOT's Civil Rights Division (CIV) for assistance, as well as review the [Local Government DBE Compliance and Monitoring Guide](#) manual. Guidance may also be found at USDOT's [Office of Small and Disadvantaged Business Utilization](#). FHWA's [Federal-aid Essentials for Local Public Agencies](#) website is an additional source for general information regarding DBE requirements.

The [LGPP Manual](#) provides an extensive discussion of the DBE program background and specific provisions. The Manual also lists the multiple state and federal laws and statutes that guide the DBE requirements.

7.6.12.2 Required Practices

- The LG must adopt TxDOT's DBE program and use the most current version of TxDOT DBE special provisions for federally funded projects.
- For projects with state funds and no federal funds, the LG will be required to follow the provisions of [Texas Transportation Code §201.702](#) and [43 TAC §§9.354-9.355](#) (HUB) and [§§9.314-9.315](#) (SBE) as referenced in the [LGPP Manual](#).
- The LG must incorporate project goals approved by TxDOT into project documents before advertising for receipt of bids. Contractors must select DBEs, HUBs and SBEs from TxDOT-approved or maintained sources. The LG will provide monthly updates during construction of DBE/HUB/SBE (as appropriate) participation and report final accomplishments to TxDOT for credit to overall program goals.

7.6.12.3 LG Responsibilities

- For all projects, the LG must:
 - adopt TxDOT's approved DBE program on projects with federal funds and include DBE provisions in the bid document;
 - submit bid items (items of work) and quantities to TxDOT project personnel along with submittal of plans and bid documents for final approval prior to advertising;
 - incorporate HUB and SBE program requirements on projects with state funds and no federal funds (in accordance with applicable sections of the Texas Transportation Code and Texas Administrative Code);
 - include the TxDOT-approved project goal (DBE, HUB or SBE, as applicable) in the bid document;

- review the DBE participation plan (or HUB/SBE, as appropriate) prior to contract award to ensure contract goals will be satisfied in accordance with provisions in the bid document;
- ensure the DBEs submitted by the contractor as intended to perform work on the project are certified under the [Texas Unified Certification Program](#);
- For design-build projects, in addition to the above, the LG should not consider commitments in excess of the specified goal in the evaluation of proposals.

7.6.12.4 TxDOT District Responsibilities

- The district must submit bid item information received from the LG to CIV upon receipt (no less than four weeks prior to desired commencement of advertisement) to obtain a DBE goal for the construction contract.
- The district must ensure the DBE goal and required provisions are incorporated into the bid documents.

7.6.13 Equal Employment Opportunity

7.6.13.1 General

The LG, as a contracting agency, has a responsibility to ensure all federal-aid contractors, subcontractors, vendors and material suppliers do not discriminate in employment and contracting practices based on race, color, religion (in the context of employment), sex, national origin, age or disability.

As a subrecipient of federal funds, the LG has the responsibility to ensure the required equal opportunity requirements are included in federal-aid contracts and the contractors are in compliance with those requirements under the LG's authority. (The LG has no authority under [Executive Order 11246](#) to enforce compliance with Office of Federal Contract Compliance Programs requirements.)

A contractor's federal regulatory requirements are set forth in the Required Contract Provisions Federal-aid Construction Contracts ([Form FHWA-1273](#)) and are applicable to contractors and subcontractors that hold federal-aid contracts of \$10,000 or greater. Form FHWA-1273 includes federal equal employment opportunity (EEO) contract provisions and proposal notices required to be physically incorporated in each direct federal-aid highway construction contract and subcontract (at any tier) of \$10,000 or greater and by reference in purchase order agreements, rental agreements and other agreements for supplies and services of \$10,000 or greater.

Pursuant to [Form FHWA-1273](#), contractors must not discriminate and must take affirmative action to assure equal opportunity. A contractor's minimum EEO requirements are set forth in Form FHWA-1273 as "Section II, Nondiscrimination and Section III, Nonsegregated

Facilities.” Section II includes acceptance of a general operating policy that prohibits discrimination based on race, color, religion, sex, national origin, age or disability.

The relevant requirements for Form FHWA-1273 are listed below.

- Compliant EEO policy statement
- Dissemination of EEO policy to employees and applicants
- Supervisors’ and personnel office employees’ semi-annual meetings
- Recruitment/advertising
- Spread of wages evaluation
- Personnel actions evaluation
- Training
- Non-segregated facilities/nondiscriminatory work conditions
- Subcontractor compliance
- Records and reports

The LG imposes specific nondiscrimination and affirmative action obligations on federal-aid highway contractors relating to its employment practices under the state and federal authorities listed in the [LGPP Manual](#).

7.6.13.2 Required Practices

- To effectuate a sound and effective Equal Opportunity Contractor Compliance Program on federal-aid projects, there must be cooperation, coordination and communication between the major partners: FHWA; TxDOT; LG; and the contractor(s). Each partner has a critical role to play and responsibility to ensure compliance with federal equal employment opportunity requirements.
- All entities will ensure compliance with applicable provisions of the [Civil Rights Act](#). For guidance in compliance matters, CIV may be contacted.
- The state of Texas has made the following assurance in accordance with the [Federal-Aid Highway Act of 1968](#):

“Pursuant to the requirements of Section 22(a) of the Federal-Aid Highway Act of 1968, the State of Texas, desiring to avail itself to the benefits of Chapter 1, Title 23, United States Code, and as a condition to obtaining the approval of the Secretary of Transportation of any

projects as provided for in 23 U.S.C. §105(a), hereby gives its assurance that employment in connection with all proposed projects approved on or after August 23, 1968, will be provided without regard to race, color, religion, sex, national origin, age or disability.”

7.6.13.3 LG Responsibilities

- The LG must adopt TxDOT’s EEO program or submit an alternate program proposal for TxDOT and FHWA approval.
- The LG must include federal EEO requirements language in the bid document and monitor compliance during the construction phase.

7.6.13.4 TxDOT District Responsibilities

- The district must ensure the LG includes approved EEO language in bid proposals or request for proposals.

7.6.13.5 TxDOT Civil Rights Division Responsibilities

- CIV must conduct EEO contract compliance reviews to ensure contractor compliance with federal contract EEO requirements, including those set forth in [23 CFR Part 230 subpart D](#).
- CIV must provide technical assistance and training to the contractor regarding federal EEO requirements and the contractor compliance review process. This can vary from meeting with individual contractors to provide one-on-one assistance on developing an effective EEO program to more specific areas such as the recruitment and hiring of minorities and women.
- CIV has developed the [Technical Assistance Guide for Federal Construction Contractors](#) as a resource to assist contractors regarding compliance with the EEO special provisions of [Form FHWA-1273](#) and to help prepare for contract compliance reviews.

7.6.14 Equipment Rental Rates

7.6.14.1 General

The LG may elect to use its own equipment or rent equipment when performing force account work. The LG must follow federal and state regulations in order to get reimbursed for the costs associated with the equipment and must use actual costs to determine extra work payments.

Under federal policy, the LG may specify the acceptable rate guides and equipment rate schedules in construction contracts. The federal cost principles applicable to rental rates for contractor furnished equipment are contained in [48 CFR Part 31](#). The provisions in [2 CFR Part 200](#) apply when LG-owned equipment is used.

- *Rental Rate Guides.* A LG may, subject to TxDOT concurrence, adopt the Blue Book or other industry rate guide or it may develop its own guide. The LG must make the determination that the equipment rental rates developed or adopted fairly estimate a contractor's actual cost to own and operate the equipment within its jurisdiction. TxDOT must review and approve the LG's rates for compliance with the policy before including the rates in a contract proposal.
- *Adjustment Factors.* Equipment is not expected to operate for 12 consecutive months. Maps at the beginning of each Blue Book equipment section indicate adjustment factors based on climate and regional costs. Rate adjustment tables indicate adjustment factors based on equipment age. The adjustment factors in the maps and tables are to be applied when determining the eligible rate.
- *Maximum Rate.* The Blue Book adjusted rates cover all eligible equipment related costs. Therefore, they are considered to be the maximum eligible rates for federal-aid participation purposes.
- *Hourly Rates.* The developer of the Blue Book accumulates all contractor costs for owning a piece of equipment on an hourly basis. The monthly rate displayed in the rental guide is determined by multiplying the accumulated hourly costs by the monthly standard of 176 hours. Therefore, for periods of equipment use less than the standard 176 hours per month, federal-aid participation shall be limited to the hourly rate obtained by dividing the monthly rate by 176. Premium rates contained in the rate guides shall not be used.
- *Standby Equipment Rates.* The contractor continues to incur certain ownership costs when equipment is required to be on standby. The use of a standby rate is appropriate when equipment has been ordered to be available for force account work but is idle for reasons that are not the fault of the contractor. While an industry standard does not exist for standby rates, it has been the normal practice of the courts to reduce published ownership rental guide rates by 50% for standby rate usage. Therefore, FHWA will accept 50% of the ownership rental rates of an approved guide as the standby rate in lieu of a contractor's actual standby costs. There should be no operating costs included in the rate used, and standby time should not exceed 8 hours per day, 40 hours per week or the annual usage hours as established by the rate guide.

- Mobilization. The costs required to mobilize and demobilize equipment not available on the project are eligible for reimbursement. Standby rates should be used for equipment while being hauled to and from the project. This will be in addition to applicable rates for the hauling equipment. All costs associated with the assembly and disassembly of the equipment for transport should also be considered in the mobilization costs.
- Overhead. Equipment overhead includes such items as insurance, property taxes, storage, licenses and record keeping. The Blue Book rates include all equipment overhead costs. Therefore, if a contractor proposes to apply project or home office overhead to a Blue Book rate, the LG must assure it contains no equipment overhead cost factors. TxDOT will determine the reasonableness of such a rate.
- Profit. There is no provision for equipment rental profit in the Blue Book published rates. Federal regulations do not prohibit the addition of an amount for profit. If a LG has a policy for the payment of profit, it should be followed on federal-aid contracts. If a profit amount is used, TxDOT will determine reasonableness based on experience.
- Contractor Leased Equipment. When a contractor obtains equipment through a third-party rental agreement for use in a force account situation, the cost will normally be the invoice cost. The invoice cost should be comparable with other rental rates of the area. The Blue Book may be used to evaluate the costs for such equipment rental. Since rental agreements vary, the specific operating costs included in the rental agreement may need to be determined. The contractor may be reimbursed for additional eligible operating costs not covered by the agreement (i.e., fuel, lubrication, field repairs, etc.); however, equipment standby time will not be reimbursed.

The Associated Equipment Distributors rate book is not acceptable as a rate guide for contractor owned equipment. The Associated Equipment Distributors rates are based on national averages of rates charged by equipment distributors and do not reflect the contractor's cost of owning and operating the equipment.

The [LGPP Manual](#) describes the state and federal requirements for determining equipment rental rates.

7.6.14.2 Required Practices

Equipment rental rates for all projects with federal or state funds - must comply with TxDOT standard specifications (see [Item 9L of TxDOT's LG Standard Specifications](#)).

- The LG must develop rates and submit them for TxDOT approval if state or federal funds are sought for added work.
- The LG may use equipment rental rates in accordance with its own practices if federal or state funds are not sought for the added work.

- The LG may use equipment rental rates in accordance with its own practices for projects with no federal or state funds.

7.6.14.3 LG Responsibilities

- The LG may adopt TxDOT specifications for equipment rental rates or develop procedures based on [48 CFR Part 31](#). If the LG develops its own rental rates, TxDOT must review and approve the rates for compliance with the policy before including the rates in a contract proposal.
- TxDOT allows reimbursement of reasonable rental cost if the contractor leases equipment.

7.6.14.4 TxDOT District Responsibilities

- For projects with state or federal funds, the district must ensure the LG advises potential bidders that the Blue Book rates will be used for rental equipment in force account work. The district must verify the force account change orders use the Blue Book (or TxDOT-approved alternate) rates.
- If the LG develops its own rental rates, TxDOT must review and approve the rates for compliance with the policy before including the rates in a contract proposal.
- TxDOT allows reimbursement of reasonable rental cost if the contractor leases equipment.

7.6.15 Form FHWA-1273 and Required Contract Certifications

7.6.15.1 General

[Form FHWA-1273](#), Required Contract Provisions Federal-aid Construction Contracts, is a collection of contract provisions and proposal notices required by regulations disseminated by FHWA and other federal agencies. The provisions contained in Form FHWA-1273 are applicable to all federal-aid construction projects and must be made a part of, and physically incorporated into, all contracts, as well as all lower-tier subcontracts.

The LG is not permitted to modify the provisions of Form FHWA-1273. Minor additions covering other requirements may be included in a separate supplemental specification, provided they do not conflict with state or federal laws and regulations, and do not change the intent of the required contract provisions. The [LGPP Manual](#) lists the federal requirement for the provisions in Form FHWA-1273.

Specific certifications are also required to be made by bidders wishing to participate in federal or state funded projects. Those elements are captured by the inclusion of TxDOT's Contractor Certifications document in all contract documents.

7.6.15.2 Required Practices

- The inclusion of [Form FHWA-1273](#) is required on all projects with federal funds.
- The inclusion of TxDOT's [Contractor Certifications](#) in all contract documents.

7.6.15.3 LG Responsibilities

- The LG must physically include [Form FHWA-1273](#) verbatim into all contracts involving federal funds and must insure the prime contractor incorporates the provisions into all lower-tier subcontracts.
- The LG will include all required contractor certifications in the contract documents and monitor throughout the project, including:
 - [Child Support Statement](#)
 - [Contractor Certifications](#) – includes Contractor's Assurance (covers the incorporation of required contract provisions into subcontract agreements), and includes other provisions related to certain prohibited boycott and discriminatory actions, conflict of interest, and disclosures of public information.

7.6.15.4 TxDOT District Responsibilities

- For projects with federal funds, the district must review bid proposals or requests for proposal for inclusion of [Form FHWA-1273](#). It is the LG's responsibility to assure the form is included in the bid documents.
- Review bid proposals to ensure all applicable contract certifications are included.

7.6.16 Liquidated Damages

7.6.16.1 General

Liquidated damages are required as a means of recovering, at a minimum, construction engineering costs from a contractor. Contract time is an essential element of the contract, and it is important that the work be monitored closely to ensure completion within the time limits specified in the contract. The cost to the LG for the administration of the contract, including engineering, inspection and supervision, increases as the contract time increases. Likewise, the road user costs also increase as the completion date of the contemplated facility is extended. The liquidated damages contract provision provides a mechanism for the LG to recover these costs associated with the contract time overrun. TxDOT is required to have the LG incorporate liquidated damages provisions into its federal-aid contracts as a condition of the project agreement.

Many contracting agencies use a liquidated damage rate schedule based on a range of contract amounts. However, some use a daily rate calculated specifically for the particular project. The LG is required to develop and maintain its own liquidated damages rates that will cover, as a minimum, the LG's average daily construction engineering costs attributable

to a contract time overrun. The rates are subject to verification and approval by TxDOT. The LG must also review the rate every two years and adjust it if necessary.

In addition to construction engineering costs, the LG may include the costs of project-related delays or inconveniences, to the LG or to the public, in its liquidated damage provisions. In such cases, costs recovered in excess of the actual construction engineering costs shall be deducted from the construction costs in proportion to the federal participation on the project. Costs recovered in excess of the actual construction engineering costs shall be deducted from the construction costs. Incentive/disincentive amounts are to be shown separately from the liquidated damage amounts and are to be based on road user costs. In addition, the LG may include provisions for consequential damage when tolls are involved.

Additional guidance may be obtained from TxDOT's [Accelerated Construction Strategies Guideline](#). The [LGPP Manual](#) contains the federal and state requirements for determining liquidated damages.

7.6.16.2 Required Practices

- For all projects with federal or state funds, the LG must follow TxDOT policy on liquidated damages and incentive/disincentive. The LG must develop liquidated damage rates based on the LG's anticipated construction engineering cost and may include road user costs, when appropriate.

7.6.16.3 LG Responsibilities

- The LG must develop liquidated damage rates that recover the cost of construction engineering. TxDOT must approve the rate.
- The LG must submit a liquidated damage schedule to TxDOT for approval.
- The LG must submit (separate from liquidated damages) other desired provisions, such as incentive/disincentive, to TxDOT for approval.
- The LG must include appropriate language in the bid documents.

7.6.16.4 TxDOT District Responsibilities

- For design-bid-build projects with state or federal funds, the district must:
 - review and approve the LG's liquidated damage schedule, incentive or disincentive rates, and implementing specifications for conformance with [TxDOT's LG Standard Specification Item 8L](#) and the "[Schedule of Liquidated Damages](#)" Special Provision;
 - assure approved rates and provisions are included in the bid proposals.

7.6.17 Lobbying Certification

7.6.17.1 General

Lobbying is the attempt to influence decisions made by officials in the government, including elected officials and those who work for regulatory agencies. [49 CFR Part 20](#) prohibits federal funds from being expended to influence, or attempt to influence, a federal agency or Congress in connection with the award of any federal contract or grant. This prohibition applies to all recipients, including lower-tier subrecipients of a federal contract or grant. The lobbying restrictions are applicable to any entity receiving federal funds in excess of \$100,000 per contract/grant. By signing a contract or subcontract that includes Form FHWA-1273, a prime contractor or subcontractor is certifying it will comply with lobbying restrictions.

Any participant that has made, or agreed to make, payments for lobbying activities using non-federal funds is required to disclose such activities. Payments of non-federal funds to regularly employed officers or employees of the agency or firm are exempt from the disclosure requirement. The [LGPP Manual](#) describes the federal requirements governing lobbying certification.

7.6.17.2 Required Practices

- The lobbying certification must be included in the bid documents and appropriate language must be included in the subcontractors' documents.

7.6.17.3 LG Responsibilities

- The LG must include [Form FHWA-1273](#) in bid documents.
- The LG must require the contractor to include the appropriate language in lower-tier contracts.

7.6.17.4 TxDOT District Responsibilities

- For projects with federal funds, the district must ensure the lobbying certification is included in all bid documents, including proposals and requests for proposals.

7.6.18 Local Hiring Preference

7.6.18.1 General

Some states and local public agencies have implemented policies encouraging or mandating the use of local employment or local contracting. In such cases, federal-aid contracts may contain specific provisions stating such preferences. Local hiring preference is allowed only as it applies to contractor labor. Compliance with local preference provisions will not be a condition of responsiveness in the consideration of bids or a condition of responsibility prior to the award of contract. LGs are not allowed to specify on federal-aid contracts a local preference for bidders (including invitations for bids or request-for-proposal documents).

The [LGPP Manual](#) lists the federal and state requirements for local hiring preference.

7.6.18.2 Required Practices

- For projects with federal funds, local hiring preference is allowed only as it applies to contractor labor.
- For any projects with state funds, the LG must gain TxDOT approval before using contract or agreement language mandating hiring preference.

7.6.18.3 LG Responsibilities

- For projects with federal funds, the LG may include any state or local hiring preference only as it applies to contractor labor.
- For projects with state funds but no federal funds, the LG must request TxDOT approval to require hiring preferences.

7.6.18.4 TxDOT District Responsibilities

- For projects with federal funds, the district must review all bid proposals and requests for proposals to ensure hiring preference language is only included as it applies to contractor labor.

7.6.19 Non-resident Bidder and Texas Preference

7.6.19.1 General

Similar to the requirements described in the [Local Hiring Preference provisions](#) stated above, the federal laws do not allow states to provide a bidding preference for resident bidders for federal-aid contracts.

For state-funded projects, the Legislature enacted statutes regarding non-resident bidders. [Texas Government Code §2252.002](#) states:

“A governmental entity may not award a governmental contract to a non-resident bidder unless the non-resident underbids the lowest bid submitted by a responsible resident bidder by an amount that is not less than the amount by which a resident bidder would be required to underbid the non-resident bidder to obtain a comparable contract in the state in which the non-resident's principal place of business is located.”

TxDOT refers to this law as the “reciprocity requirement.” Information about states with bidding preference laws may be obtained from the Texas Comptroller of Public Accounts Office, including a [List of States with Resident Bidding Preferences](#). The [LGPP Manual](#) lists the state and federal requirements for state hiring preferences.

7.6.19.2 Required Practices

- For projects with federal funds, the state's non-resident preference provisions will not be allowed.
- For projects with no federal funds, the LG must follow the state statute.

7.6.19.3 LG Responsibilities

- For projects with federal funds, the Texas bidding preference statute is not applicable and the LG will ensure no resident preference provisions are included in bid documents.
- For projects with no federal funds, the LG must:
 - include language to implement the Texas statute in the bid document and request for proposals;
 - obtain a list of states with reciprocity statutes;
 - apply reciprocity in contract award if applicable; and
 - inform TxDOT in the request for award concurrence if a bidding preference was applied in the determination of contract award.

7.6.19.4 TxDOT District Responsibilities

- For projects with federal funds, the district must review the bid proposals and requests for proposals to ensure there are no resident preference provisions.
- For projects with state funds, the district must review the bid proposals and requests for proposals to ensure provisions to implement the Texas statute are included.

7.6.20 Material State or Local Preference

7.6.20.1 General

For projects involving federal funding, the LG may not impose any requirement or enforce any procedure requiring the use of, or providing a price differential in favor of, articles or materials produced within a state or other political subdivision. This includes requirements prohibiting, restricting or discriminating against the use of articles or materials shipped from or prepared, made or produced in any state, territory or possession of the United States. Materials produced within a designated area may not be favored to the exclusion of comparable materials produced outside of the area on federal-aid projects.

For projects with only state and/or local funding, state and local material preferences may apply. State and local preference clauses give particular advantage to the designated source and, thus, restrict competition. However, local and state material preference provisions may not be used on any federal-aid construction projects.

This policy also applies to preference actions against materials of foreign origin, except as otherwise permitted by federal law. The LG may not give preference to in-state material sources over foreign material sources on federal-aid projects. Under the Buy America provisions, the state or LG is permitted to expand the Buy America restrictions provided the state or LG is legally authorized under state law to impose more stringent requirements. The [LGPP Manual](#) lists the state and federal requirements for contracting with state or local preferences.

7.6.20.2 Required Practices

- For projects with federal funds, the LG must comply with federal statute.
- For projects with state funds but no federal funds, bid documents must contain provisions to assure compliance with [Texas Government Code §2155.444](#) and [§2155.449](#). Use of contract requirements with preference for local materials must be approved by TxDOT.
- For projects with no federal funds but with state funds, the contracts must contain the same preference provisions for steel and steel products required under federal law for an improvement made with federal funds.

7.6.20.3 LG Responsibilities

- If federal funds are used, the LG must assure there are no state or local preference provisions in its contracts.
- If state funds are used, the LG must:
 - send contract provisions to implement [Texas Government Code Chapter 2155](#) for TxDOT concurrence; and
 - request TxDOT approval of local material preference, if desired.

7.6.20.4 TxDOT District Responsibilities

- For projects with federal funds, the district must review the bid proposals and requests for proposals to ensure they do not contain language giving state or local material preference.
- For projects with state funds, the district must transmit LG contract provisions implementing state statutes to DES for approval.

7.6.21 Materials

7.6.21.1 General

Materials used in a LG construction project must be clearly defined in the PS&E. Plans and specifications need to describe the types, locations and construction requirements for materials in detail to facilitate the construction, the contract control and the estimation of construction costs of the project. The estimate must reflect the anticipated cost of the project in sufficient detail to provide an initial prediction of the financial obligations to be incurred by the LG, TxDOT or FHWA and to permit an effective review and comparison of the bids received. The [LGPP Manual](#) lists the federal and state requirements related to materials for construction projects.

7.6.21.2 Required Practices

- For all projects with state or federal funds, or all projects on the state highway system regardless of funding, TxDOT must approve the plans and specifications prior to advertising for competitive bids or a request for proposals.
- For projects on the state highway system, materials should be from a TxDOT-approved source. For materials without an approved source, the LG shall submit the proposed material source to TxDOT for approval.
- For projects not on the state highway system, the LG must either adopt TxDOT's [standard specifications](#) or develop alternate specifications and submit them to TxDOT for approval. For alternate specifications, the material requirements must fulfill the purpose of the approved design and must be in general conformance with TxDOT material quality standards. Proposed changes to material requirements must have TxDOT approval before the LG implements the change.
- For all projects with federal funds, the LG must incorporate contract language in the bid documents that addresses the prohibition of use of services, systems, or services or systems that contain components produced by manufacturers named by [2 CFR 200.216](#) and [2 CFR 200.471](#).

7.6.21.3 LG Responsibilities

- The LG must adopt TxDOT [standard specifications](#) for materials or submit alternate, comparable specifications to TxDOT for approval.
- The LG must request TxDOT approval of changes to the material specifications before implementation.

- TxDOT recommends the LG uses TxDOT-approved materials sources when available. If the LG chooses to use a non-approved source, it will need to seek guidance on the approval process from MTD's Geotechnical Soils and Aggregates Branch. The time frame for this process can be significant.
- For design-build, the LG must submit evaluation criteria to TxDOT before issuing a request for proposals.
- The LG must incorporate contract language requiring compliance with the prohibitions described in [2 CFR 200.216](#) and [2 CFR 200.471](#). A statement that addresses this language is provided in the [Contractors Certifications](#).

7.6.21.4 TxDOT District Responsibilities

- For all projects with state or federal funds, or all projects on the state system regardless of funding, the district must review the proposed specifications and evaluation criteria for conformance to TxDOT material specifications. The district may submit questions and clarification concerns to CST or MTD for final determination.

7.6.22 Method of Construction (or Method of Bidding)

7.6.22.1 General

Construction contracts are to be awarded by competitive bid. One of the most basic tenets of federal-aid contracting is that construction contracts are to be awarded competitively to the responsible contractor that submits the lowest responsive bid. The [LGPP Manual](#) provides a detailed discussion of the rules governing the competitive bid process for construction contracts. In general, a cost effectiveness finding is required for the TxDOT approval of any LG proposal to use a non-competitive method of contracting. The LG should avoid using force account contracts or a negotiated construction contract. Force account contracts with a private contractor are an exception to normal construction contracting procedures and should rarely be approved. Circumstances justifying a negotiated construction contract should be even more of an exception, making approvals of such contract methods extremely rare. The LGPP Manual provides the federal and state codes regulating the use of competitive bids.

7.6.22.2 Required Practices

- For projects with state or federal funds or on the state highway system, the LG must obtain TxDOT approval for any procurement method utilized, including competitive bidding. If competitive bidding procedures are not utilized, the LG must provide written justification for the use of any alternative bidding procedures in accordance with applicable state and federal laws, and TxDOT must approve the utilization of such alternative bidding procedures.

7.6.22.3 LG Responsibilities

- The LG must submit its competitive bidding process to TxDOT for approval.
- If procurement other than competitive bidding is proposed, the LG must submit the process with a written justification for either a cost-effective or emergency condition to TxDOT for approval.
- For design-build projects, the LG must include language in the request for proposal outlining the selection criteria based on technical qualifications and cost.

7.6.22.4 TxDOT District Responsibilities

- The agreement between TxDOT and the LG will indicate whether the project will be procured through a design-bid-build or design-build process. The district will work with the LG during project development to assure procurement meets the terms of the agreement.
- For design-bid-build projects with state or federal funds, the district may forward the LG's request to deviate from the competitive sealed bid process to CST for coordination with other divisions and TxDOT approval. The district must include the LG's cost-effective or emergency justification if the project has federal funds.
- For design-build projects, the district must ensure the LG procures the design-build firm based on technical qualifications and cost.

7.6.23 Non-collusion Statement

7.6.23.1 General

The submission of a non-collusion statement protects the integrity of the federal-aid highway program by serving as a deterrent to bid rigging activities. The certification also becomes evidence in prosecuting cases involving construction contract bid rigging. A non-collusion statement is required from all bidders and is to be submitted as part of the bid proposal package. Failure to submit the required certification will result in the bid being considered as non-responsive and ineligible for award consideration.

The LG must include provisions in the bidding proposals requiring all bidders to include a non-collusion statement with their bids. FHWA, in consultation with the U. S. Department of Justice, has concluded the non-collusion statement may be either an unsworn declaration made under penalty of perjury under the laws of the United States or a sworn affidavit executed and sworn before a person who is authorized to administer oaths by the laws of the state.

All non-collusion certifications shall be retained by the LG in accordance with the retention policy of [49 CFR 18.42](#). These certifications could serve as important evidence in the event

collusion or bid rigging is discovered at a later date. The [LGPP Manual](#) provides the federal statute related to the non-collusion statement.

7.6.23.2 Required Practices

- The LG must comply with federal statutes.

7.6.23.3 LG Responsibilities

- The LG must ensure all bidders submit a non-collusion statement. If a bidder fails to submit the statement, the bid may not be opened, read and considered for contract award.
- The LG must include a non-collusion statement in the bid package or in the request for proposal for design-build projects.
- The LG must assure the statement is submitted before reading the bid.
- The LG must retain the statement for all bidders.

7.6.23.4 TxDOT District Responsibilities

- For projects with federal funds, the district must ensure the non-collusion statement is included in the bid proposal and request for proposals.

7.6.24 Nondiscrimination Against Persons with Disabilities

7.6.24.1 General

Discrimination on the basis of disability by public entities is prohibited. The prohibition extends to all activities of state and LGs participating in federally assisted programs. The LG must ensure accessibility for individuals with disabilities is provided in the construction of all new transportation facilities. When altering existing transportation facilities, the LG must also ensure the alterations are made in such a way as to provide access and utilization by individuals with disabilities. Additional information related to accessibility requirements and the related responsibilities of the LG and TxDOT during construction are included in Chapter 9 - Construction of the [LGPP Manual](#) and [this Guide](#).

The section of the [LGPP Manual](#) corresponding to this section of the Guide describes the federal and state laws requiring transportation facilities to be accessible.

7.6.24.2 Required Practices

- All projects must comply with the provisions of the applicable statutes.
- The LG is responsible for coordination with TDLR or a registered accessibility specialist for plan review and approval, and for paying all applicable fees.

7.6.24.3 LG Responsibilities

- For all projects, the LG must ensure all transportation facilities are in compliance with [ADAAG](#), [TAS](#) and [16 TAC §68.102](#).
- The LG must submit plans to TDLR or a registered accessibility specialist for public right-of-way projects with pedestrian elements estimated to cost at least \$50,000, building or facilities projects, and hike/bike trail projects.
- The LG must implement an ADA program to include the following.
 - *Notice of Nondiscrimination Requirements.* The LG will inform the public that it does not discriminate on the basis of disability in its programs, services and activities.
 - *Methods of Notification of Nondiscrimination Requirements.* The LG will post its notice in local papers, magazines, bulletins, announcements, handbooks, pamphlets, brochures, recruitment materials, application forms and any other publication it distributes.
 - *Self-evaluation.* The LG will conduct a self-evaluation to ensure its policies and practices comply with ADA.
 - *Transition Plan.* If the LG employs 50 or more persons, the LG will develop a transition plan for making structural changes to existing facilities so they are accessible to individuals with disabilities. The transition plan must meet the requirements of [28 CFR 35.150\(d\)](#).
 - *Designation of an ADA/504 Coordinator.* The LG will designate at least one employee to coordinate ADA/504 programs. Contact information will be made available to the general public.
 - *Provision of Reasonable Accommodations for Employment.* The LG will comply with the provisions of Title I and II of ADA.
 - *Adopting Grievance/Complaint Procedures for Disability Discrimination Complaints.* The LG will adopt a grievance procedure to address all complaints dealing with ADA/504 provisions.
 - *Provision of Accessible Programs, Services and Activities.* The LG will ensure no individual with a disability is excluded from any service, program or activity.
 - *Provision of Accessible Communications.* The LG will provide auxiliary aids and services to ensure all communications with individuals with disabilities is effective.
 - *Monitoring/Enforcement.* The LG will maintain all program records and make them available for review by federal officials.

- *Maintenance of Accessible Features.* The LG will ensure facilities are properly maintained and readily accessible to individuals with disabilities.
- *Other Program Requirements.* The LG will comply with the “[Uniform System for Parking for Persons with Disabilities](#)” regulations.

7.6.24.4 TxDOT District Responsibilities

- For projects requiring TxDOT approval of the PS&E and all projects on the state highway system, the district must assure the LG has submitted the plans to TDLR or a registered accessibility specialist and obtained approval prior to approving the PS&E for letting.

7.6.25 Non-responsive Bid

7.6.25.1 General

A non-responsive bid is deemed not to meet all of the written requirements of the advertisement and proposal. The subject of a non-responsive bid is briefly discussed Chapter 8 - Letting and Award in the [Bid Opening and Tabulation](#) sub-section of this Guide. A list of reasons for a bid to be considered non-responsive must be included in the bid document in conjunction with [23 CFR 635.112\(h\)](#). The reasons must be clearly defined. The inclusion of reasons why a bid “may” be declared non-responsive must not be included in the bid document. FHWA has stressed that the use of potential subjective reasons must be eliminated – the bid is either responsive or non-responsive.

The LG must follow federal and state guidelines when determining the reasons for not accepting a bid. FHWA has determined the reasons for a bid being non-responsive listed in the proposal cannot be “waived.” Therefore, common provisions allowing a LG to waive technicalities determined to be in its best interest cannot be invoked regarding a non-responsive bid. The [LGPP Manual](#) lists the state and federal requirements relating to a non-responsive bid.

7.6.25.2 Required Practices

- For projects with state or federal funds, the LG must adopt [Item 2L of TxDOT’s LG Standard Specifications](#) or submit alternate definitions of a “non-responsive bid” for TxDOT approval. If TxDOT’s Item 2L is used, a special provision must also be included requiring the Child Support Business Ownership form be submitted as part of bid to be considered responsive.

7.6.25.3 LG Responsibilities

- On design-bid-build, the LG must adopt [Item 2L of TxDOT's LG Standard Specifications](#) or submit an alternate for TxDOT approval. If TxDOT's Item 2L is used, a special provision must also be included requiring the Child Support Business Ownership form (see [Texas Family Code §231.006](#)) be submitted as part of bid to be considered responsive.
- On design-build, the LG must gain TxDOT approval of reasons that make a proposal non-responsive and list the reasons in the request for proposals.
- The LG must list the reasons that make a bid non-responsive in the bid documents, or in the request for proposal in design-build projects.
- The LG must check the submitted bids or proposals for compliance with the reasons.
- The LG may not consider non-responsive bids or proposals for an award.

7.6.25.4 TxDOT District Responsibilities

- For design-bid-build projects, the district must:
 - ensure the bid proposal contains either [Item 2L of TxDOT's LG Standard Specifications](#) or comparable language defining conditions under which a bid will not be considered;
 - confirm the bid proposal contains language stating the failure to submit the Child Support Business Ownership form ([Texas Family Code §231.006](#)) as part of the bid will be considered non-responsive;
 - submit questions and non-compliance issues to CST for final determination; and
 - attend the bid opening and spot check the bid proposals to verify the LG does not read non-responsive bids.
- For design-build projects, the district must:
 - review the requests for proposals for inclusion of language that makes a proposal non-responsive; and
 - spot check the proposals for compliance with the language in the request for proposals.

7.6.26 Non-segregated Facilities

7.6.26.1 General

For projects with federal funds, federal law does not allow the contractor to discriminate against any person by having segregated facilities. By entering into the contract, the contractor certifies it maintains non-segregated facilities conforming to federal requirements.

This certification is included in [Form FHWA-1273](#). The prime contractor is required to obtain a similar certification from each subcontractor and supplier, as applicable.

One exception to the non-segregated facilities provision is for the disabled when the demands for accessibility override the need to non-segregate (e.g., disabled parking). In addition, single-user or separate bathrooms or dressing facilities are also allowable for privacy purposes. The [LGPP Manual](#) provides the federal laws requiring non-segregated facilities.

7.6.26.2 Required Practices

- LGs must comply with the federal statute on all projects with federal funds.

7.6.26.3 LG Responsibilities

- The LG must include [Form FHWA-1273](#) in the bid documents.
- The LG must advise potential bidders that submission of a bid constitutes the certification.
- The LG must assure the contractor gets a similar certification from all subcontractors and materials suppliers greater than \$10,000.

7.6.26.4 TxDOT District Responsibilities

- For projects with federal funds, the district must review bid proposals and requests for proposals to ensure they contain certification language.

7.6.27 Patented/Proprietary Products

7.6.27.1 General

A “proprietary” purchase is the acquisition of a product or service limiting competition to one manufacturer or vendor, and does not allow an equivalent product to be supplied. Prior to Oct. 28, 2019, federal funds would not participate in a premium or royalty on any patented or proprietary product. However, this regulation was revised per [FHWA guidance](#) to provide that project sponsors may procure patented or proprietary products, and TxDOT will no longer

be required to provide certifications, request public interest findings, or develop research or experimental work plans.

The LG should provide notification to TxDOT with the proposed PS&E if it intends to specify patented or proprietary products in a contract. The primary purpose of the policy is to allow TxDOT an opportunity to ensure compatibility with existing systems and specifications.

The [LGPP Manual](#) lists the state and federal requirements regulating the use of patented or proprietary products.

7.6.27.2 Required Practices

- The LG must notify TxDOT within its PS&E submittals of any proposed specification for use of proprietary products.

7.6.27.3 LG Responsibilities

- The LG must not specify the use patented or proprietary products in its contracts without prior notification to TxDOT. The LG should coordinate with the district to define recommended format and content of the notification for the proposed specification for use of proprietary products to ensure compatibility with existing systems or products.

7.6.27.4 TxDOT District Responsibilities

- The district must review the LG-developed notification of proposed specifications including the use of proprietary products for compatibility. The district may coordinate with DES for review of LG's submittals as appropriate.

7.6.28 Prequalification

7.6.28.1 General

The LG may include provisions for prequalification in invitations for receipt of bids. AASHTO defines prequalification as a means of predetermining job experience and work capacity and to identify individuals and organizations from whom the agency may accept a bid. AASHTO has also encouraged the use of prequalification procedures in its 1981 [Suggested Guidelines for Strengthening Bidding and Contract Procedures](#).

Generally, prequalification consists of an evaluation of the contractor's experience, personnel, equipment, financial resources and performance record. The evaluation is normally performed annually. The information required for prequalification may be extensive; however, the prequalification process should be relatively short so it can be completed during the project advertising period. The LG's prequalification process should not be used to limit competition or discourage the submission of a bid by an otherwise responsible contractor. TxDOT defines a "responsible" bidder as one that is physically organized and equipped with the financial wherewithal to undertake and complete the contract.

FHWA does not require the LG to implement procedures or requirements for prequalification on federal-aid projects. However, if the LG has these procedures or requirements, it must conform to the FHWA competitive bidding policy and not restrict competition.

The procedures and requirements the LG proposes to use for qualifying and licensing contractors and determining who may bid, be awarded or perform federal-aid contracts shall be submitted to TxDOT for advance approval. Only those procedures and requirements so approved shall be effective with respect to federal-aid highway projects. Any changes in approved procedures and requirements shall likewise be subject to approval by TxDOT.

- No procedure or requirement for prequalification, qualification or licensing of contractors shall be approved that, in the judgment of TxDOT, restricts competition, prevents submission of a bid or prohibits consideration of a bid submitted by any responsible contractor, whether resident or nonresident of the state or local area.
- No contractor shall be required by law, regulation or practice to obtain a license before a submission of a bid or before the bid may be considered for award of a contract. Contractor prequalification may be required as a condition for submission of a bid or award of contract only if the period between the date of issuing a call for bids and the date of opening of bids affords sufficient time to enable a bidder to obtain the required prequalification rating. However, the LG may require licensing of contractors after the bids are opened if the requirement is consistent with competitive bidding principles. In other words, the requirement must be applied uniformly to all contractors.

FHWA regulations on licensing do not specifically address subcontractor-licensing issues.

Although the LG may have a compelling reason (e.g., state or local law) to utilize a procedure differing from acceptable federal-aid practice, the procedure may not be applied to a federal-aid project. [23 CFR 635.112\(d\)](#) specifically requires the LG to inform bidders of contract provisions not applying to federal-aid projects. This information must be included in the advertisement, specifications, special provisions or other governing documents as appropriate.

An example of an inappropriate provision would be a state or local preference clause in the standard specifications. Since the clause provides some competitive advantage for in-state or local contractors, the clause violates the federal open competition requirements and, therefore, could not be applied to a federal-aid project. Other examples would be a restriction on products or services from specific foreign countries, a requirement to provide insurance for domestic partners or small business set-asides.

The [LGPP Manual](#) provides the federal and state requirements for prequalification.

7.6.28.2 Required Practices

- For projects on the state highway system, the LG must require potential bidders to be prequalified by TxDOT. For these projects, the LG must include [TxDOT's LG Standard Specification Item 2L](#) and its corresponding special provisions in the bid documents and define which type of prequalification criteria must be met.
 - Confidential Questionnaire: This level of qualification is normally for construction projects. Bidders must provide an audited financial statement prepared by an independent certified public accountant as outlined in [Bulletin No. 2](#).

Financial statements must be less than one year old and must be approved for at least one letting prior to the anniversary date. Bidders must also provide a completed [Confidential Questionnaire](#) and related supporting documents.
 - Bidder's Questionnaire: The audited financial qualification requirements of this item or pertaining special provisions may be waived with prior approval by TxDOT if the project meets the following criteria:
 - the engineer's estimate is \$300,000 or less;
 - the project is a maintenance project; or
 - the project pertains to specialty items not normal to TxDOT's roadway projects program.
 - In order to satisfy the requirements for bidding on a waived project, bidders must provide a completed [Bidder's Questionnaire](#) and related supporting documents. The [proposal request form](#) denotes projects eligible for this level of qualification with a "W."
- If the LG wants to use prequalification or qualification criteria in addition to those prescribed by TxDOT, the criteria must be approved by TxDOT before becoming part of the bid documents. Any additional LG-proposed criteria must clearly relate to determination of whether or not the bidder is "responsible."
- For projects off the state highway system, the LG may require, or choose not to require, potential bidders be prequalified by TxDOT.

For projects requiring TxDOT prequalification, the LG must verify the bidder is prequalified by TxDOT by ensuring the bidder is on the appropriate [Prequalified Contractors](#) list on TxDOT's website prior to distributing the bid documents.

- For projects not requiring TxDOT prequalification:

- If TxDOT special provisions providing for technical prequalification requirements for bidders on various categories of work are used, a project-specific special provision must be included that eliminates the need for compliance with [TxDOT's LG Standard Specification Item 2L](#) and corresponding special provisions. It must also state the LG prequalification or qualification requirements for this project.
- If technical prequalification requirements are not used, a project-specific special provision must be included stating the LG prequalification or qualification requirements for this project.
- If the LG wants to use qualification criteria in addition to those prescribed by TxDOT, the criteria must be approved by TxDOT before becoming part of the bid documents. If the LG does not use TxDOT prequalification criteria, the LG prequalification or qualification criteria must be approved by TxDOT before becoming part of the bid documents. Any additional LG-proposed criteria must clearly relate to determination of whether or not the bidder is “responsible.”
- The LG’s prequalification or qualification requirements may only consist of an evaluation of the contractor’s experience, personnel, equipment, financial resources and performance record. The prequalification process should be relatively short so it can be completed during the project advertising period. If the LG uses a post-bid qualification process, it may only include objective criteria defined within the bid documents and not be a consideration in determination of the lowest bid. It may only be used to determine if the apparent low bidder is a “responsible” bidder. A LG’s prequalification or qualification process should not be used to limit competition or discourage the submission of a bid by an otherwise responsible contractor.
- AASHTO recommends the following information be required for prequalification:
 - detailed financial statement;
 - resident agent;
 - capacity and control classification;
 - experience and performance;
 - ownership or control; and
 - equipment.
- Similar criteria should be used for a qualification procedure to determine if the apparent low bidder is a “responsible” bidder.

7.6.28.3 LG Responsibilities

- For projects using TxDOT prequalification procedures, the LG:
 - must submit any additional, desired qualifying/licensing procedures to TxDOT for approval;
 - must include [TxDOT's LG Standard Specification Item 2L](#) and corresponding special provisions within the bid documents;
 - must not include a requirement for a contractor to obtain a license as a condition of submitting a bid; and
 - may require the successful bidder to obtain a license, if applied across the board.
- For projects not using TxDOT prequalification procedures, the LG must:
 - submit proposed prequalification and/or qualification procedures to TxDOT for review at least 60 days prior to scheduled letting date;
 - include appropriate general notes or special provisions within the bid documents to clearly state the prequalification or post-bid qualification requirements; and
 - state all prequalification requirements within all advertisements for the project.

7.6.28.4 TxDOT District Responsibilities

- General
 - If the LG wants to use alternate prequalifying or qualifying procedures (or to add additional prequalification criteria), the district must review and approve the request. This request to approve alternate procedure/criteria should be received from the LG at least 60 days prior to the scheduled letting date. The district may submit questions and non-compliance issues to CST's Construction and Maintenance Contract Letting (CMCL) Section for final determination.
- Design-build: For projects with federal funds, the district must review the LG evaluation criteria to assure in-state preference is not one of the evaluation factors. The district must review the LG's solicitation for compliance with [Texas Government Code §2269.357](#).

7.6.29 Prevailing Minimum Wage (Davis-Bacon Act)

7.6.29.1 General

The payment of predetermined minimum wages for certain job classifications used on federal-aid contracts is derived from the [Davis-Bacon Act of 1931](#). The Davis-Bacon Act requires the payment of locally prevailing wages and fringe benefits to laborers and mechanics employed on federal contracts in excess of \$2,000 for construction, alteration or

repair (including painting and decorating) of public buildings or public works. Davis-Bacon was enacted as a means to prevent contractors from importing cheap labor from outside the area, thereby, keeping capital at home with the local labor force where it would do the most good. Davis-Bacon provisions are covered in [Form FHWA-1273](#), a required provision for all federal-aid projects as discussed previously in [Chapter 7.6.15](#) of this Guide.

The U.S. Department of Labor (USDOL) has responsibility for enforcing these statutes and determining the prevailing wage rates. USDOL establishes the prevailing wage rates by either a determination, based on an in-house review of payroll data, or by a survey based on wage data from active projects. Notices of wage rate decisions are published in the Federal Register. Davis-Bacon wage rates are posted on the [USDOL website](#).

7.6.29.2 Applicability of Davis-Bacon - Site of Work

The Davis-Bacon Act limits coverage to laborers and mechanics “employed directly upon the site of the work.” Since 1972, USDOL and the courts have addressed various aspects of the applicability of Davis-Bacon requirements to site-of-work facilities.

The USDOL’s implementing regulation, [29 CFR 5.2\(l\)\(2\)](#), extends coverage to off-site facilities dedicated exclusively and in proximity to the actual construction site.

[29 CFR 5.2 \(l\)\(1\)](#) states:

“The site of the work is the physical place or places where the building or work called for in the contract will remain; and any other site where a significant portion of the building or work is constructed, provided that such site is established specifically for the performance of the contract or project ...”

One example would be a casting or fabrication yard for a segmental concrete bridge that is specifically established for a project after the award of contract. The LG should contact the USDOL regional offices regarding a determination of what percentage of the work would constitute a “significant portion” and the potential coverage of such sites. If a significant portion of the work is to be constructed offsite, the LG should attempt to include the wage determinations covering potential offsite location in the bid proposal.

[29 CFR 5.2 \(l\)\(2\)](#) also indicates other work areas not located on the site of permanent construction (job headquarters, tool yards, batch plants, borrow pits, etc.) may be part of the site of the work “... provided they are dedicated exclusively, or nearly so, to performance of the contract or project, and provided they are adjacent or virtually adjacent to the site of the work.” Permanent, previously established facilities are not covered, even where the operations for a period of time may be dedicated exclusively, or nearly so, to the performance of the contract.

[29 CFR 5.2 \(j\)\(1\)\(iv\)](#) provides that transportation between locations included in the “site of the work” is covered. This includes transportation between the permanent location of construction and covered sites where a “significant portion” of the work will be accomplished

or covered sites dedicated exclusively and adjacent or virtually adjacent to the site of the work.

USDOL has made the determination that when transportation will take place in more than one wage determination area, the applicable wage determination will be the wage determination for the area in which the construction will remain when completed. This determination will apply to all bidders, regardless of where they propose to construct significant portions of the project.

FHWA has taken the position that while this is the USDOL's program, it is inappropriate for FHWA to provide guidance in this area. FHWA encourages LGs to work jointly with TxDOT, the FHWA division office and the USDOL regional offices to resolve "site of work" issues.

7.6.29.3 Applicability of Davis-Bacon to Specific Work Types

Additional discussion on the following can be found in the USDOL's [Field Operations Handbook](#) (FOH).

- *Exploratory drilling services:* Subsurface utility engineering or utility location services are considered to be exploratory drilling services. These contracts provide the location of utilities for engineering or planning purposes. Davis-Bacon does not cover them. [See [USDOL FOH 15d05\(b\)](#).]
- *Ferryboat Projects:* The building, alteration and repair of ships under government contracts is work performed upon "public works" within the meaning of the Davis-Bacon Act. Wage determinations are issued only if the location of contract performance is known when bids are solicited. (See [USDOL FOH 15d11](#).) If Davis-Bacon is not included in a ferryboat project, USDOL requires the contract provisions to include:
 - a statement clause explaining why the wage rate determinations are not included;
 - a reminder that the contractor must pay at the very least the federal minimum wage rate;
 - a reminder that the contractor must submit weekly certified payroll statements; and
 - a reminder that the contractor must comply with all other USDOL labor standards.
- *Flaggers:* USDOL has determined the duties of flaggers are manual or physical in nature and, therefore, are covered by the Davis-Bacon Act. [See [USDOL FOH 15b06\(a\)](#).] Employees of traffic service companies that rent equipment and perform only incidental functions at the work site in conjunction with the delivery of equipment are not covered. [See [USDOL FOH 15e10\(b\)](#).]

- *Force Account Work by Public Agencies:* In some circumstances, a LG may be authorized to perform the construction work using its own forces. Davis-Bacon provisions do not apply to governmental agencies and states. Public agencies are not considered “contractors” or “subcontractors” within the meaning of the Davis-Bacon Act. [See [USDOL FOH 15b06\(a\)](#).] However, under [Texas Government Code §2258.021](#), workers employed by the LG, or other public entity, are covered and must be paid the appropriate prevailing wage rates stipulated by Texas Government Code Chapter 2258.
- *Helpers:* Helpers are permitted on covered contracts if the helper classifications are specified in the applicable wage rate determinations. (See [USDOL FOH 15e05](#).)
- *Inspectors:* The contractor’s employees who make inspections for quality and contract compliance (including quality control or quality assurance) are not usually considered to be laborers or mechanics and, therefore, are not covered. (See [USDOL FOH 15e14](#).)
- *Materialmen and Suppliers:* The manufacturing and delivery of supply items such as sand, gravel and ready-mixed concrete at the work site, when performed by companies serving the general public, are generally not activities covered by Davis-Bacon. (See [USDOL FOH 15e16](#).)
- *Owner-operators of Trucks and Other Hauling Equipment:* As a matter of policy, USDOL exempts truck owner-operators from Davis-Bacon coverage. The contractor’s certified payrolls should show the names of the truck owner-operator with the notation “owner-operator” but need not list hours worked or rates paid. This policy does not pertain to owner-operators of other equipment such as bulldozers, scrapers, backhoes, etc. (See [USDOL FOH 15e17](#).)
- *Project Engineers:* The contractor’s project engineers are generally not considered to be laborers or mechanics and, therefore, are not covered. (See [USDOL FOH 15e07](#).)
- *Railroad and Utility Adjustments:* Davis-Bacon provisions are not applicable to the relocation work done by a public utility or railroad forces, or the relocation done by a contractor engaged by the utility or railroad. This has been a long-standing FHWA policy and has a basis in a [May 15, 1985, legal opinion](#) from FHWA’s chief counsel. However, Davis-Bacon provisions apply when utility relocation work is part of a highway construction project to be performed by the highway construction contractor and subcontractor.
- *Summer Youth:* USDOL has strict requirements for the employment and payment of summer youth.

- **Survey Crews:** The actual duties of the survey crewmembers must be considered. Generally speaking, instrument persons, party chiefs and rod persons are not considered laborers or mechanics and, therefore, are not covered. However, a crewmember who primarily does manual work (clearing brush) is covered for the time so spent. (See [USDOL FOH 15e20.](#))
- **Transportation Enhancement Projects:** Davis-Bacon only applies to projects located on highways functionally classified as federal-aid highways (not local roads, rural minor collectors or projects not located on a highway system). Therefore, Davis-Bacon does not apply to transportation enhancement projects not on federal-aid highways unless they are tied to a federal-aid highway project. Further guidance is available from [FHWA's Transportation Enhancements Guidance and Information](#) web page. However, under [Texas Government Code §2258.021](#), workers employed by the LG, or other public entity, are covered and must be paid the appropriate prevailing wage rates stipulated by Texas Government Code Chapter 2258.
- **Truck Drivers (not truck owner operators):** Truck drivers who come onto the site of the work to drop off construction materials are not covered by the Act, even if the contractor employs them.
- **Warranty Work:** Davis-Bacon coverage applies to warranty or repair work if it is provided for in the original construction contract. This is true regardless of whether there is a pay item for the work. If an employee spends more than 20% of his/her time in a workweek engaged in such activities on the site of the original work, he/she is covered for all time spent on the site. The contract minimum wage rates apply regardless of whether the work is done 5, 10 or even 20 years after the contract execution.

The [LGPP Manual](#) provides the federal and state requirements governing the application of the Davis-Bacon Act to construction projects.

7.6.29.4 Required Practices

- For federally funded projects functionally classified above rural minor collector, the LG must use USDOL wage rates.
- For federally funded projects functionally classified rural minor collector or local road, and for all projects with state funds, the LG must use USDOL wage rates or submit wage rates for TxDOT approval that were developed in accordance with state statutes.
- For projects with no state or federal funds, the LG must comply with state statutes but may follow its own procedures. TxDOT approval of wage rate determinations is not required.

7.6.29.5 LG Responsibilities

- The LG must include [Form FHWA-1273](#) provisions, including Davis-Bacon wage rates, in the contract or request for proposals.
- The LG must assure the provisions are included in all contracts and subcontracts exceeding \$2,000.
- For federally funded projects functionally classified rural minor collector or local road, and for all projects with state funds, the LG must use USDOL wage rates or submit wage rates for TxDOT approval that were developed in accordance with state statutes.

7.6.29.6 TxDOT District Responsibilities

- For projects with state or federal funds, the district must review the LG's proposed process to assure compliance with the applicable statutes. The district may submit questions and non-compliance issues to CST for guidance.
- For projects with federal funds, the district must review bid proposals and requests for proposals to ensure [Form FHWA-1273](#) and appropriate wage rates are included.
- For projects with state funds, the district must review the bid proposals and requests for proposals to ensure the appropriate wage rates are included.

7.6.30 Prison-Produced Materials

7.6.30.1 General

Prison-produced materials are products made by convict labor. There are limitations on using materials produced by convict labor in a federal-aid highway project. Materials produced after July 1, 1991, by convict labor may only be incorporated in a federal-aid highway construction project if:

- such materials have been produced by convicts who are on parole, supervised release or probation from a prison; or
- such material has been produced in a qualified prison facility (Texas does not have a qualified prison facility meeting the requirements of the regulation).

The [LGPP Manual](#) describes the federal statute prohibiting the use of prison produced materials.

7.6.30.2 Required Practices

- The LG must follow the federal statute.

7.6.30.3 LG Responsibilities

- The LG must develop contract language prohibiting the use of prison-produced materials and include the contract language in bid documents.

7.6.30.4 TxDOT District Responsibilities

- For projects with federal funds on roadways functionally classified above a rural minor collector, the district must review the bid proposals and requests for proposal to ensure they do not contain language allowing material produced in a prison facility.
- There is no monitoring on federally funded projects on roadways functionally classified rural minor collector or local road, and on all projects without federal funds.

7.6.31 Publicly Owned Equipment

7.6.31.1 General

Publicly owned equipment is defined as "... equipment previously purchased or otherwise acquired by the public agency involved for use in its own operations." Publicly owned equipment should not normally compete with privately owned equipment on a contracted project. However, in exceptional cases, the use of publicly owned equipment may be justified if the LG can show it is clearly cost effective. When supported by a public interest finding, TxDOT may approve the LG's proposal to use publicly owned equipment.

Federal funds may participate in the costs associated with the use of publicly owned equipment provided that:

- the PS&E submittal clearly sets forth the proposed use;
- the specifications indicate the items of equipment that are available, the rates to be charged and the point(s) of availability or delivery; and
- the specifications include the express condition that the contractor has the option to rent all or part of the available equipment, or to provide the equipment.

The LG cannot benefit from the rental of its own equipment by virtue of a federal-aid contract. Accordingly, the rental rates must reasonably represent the cost of providing the equipment or there shall be a lump sum credit to federal reimbursement on the project equal to the amount of profit on the rental the agency receives.

The [LGPP Manual](#) describes the federal requirement for using publicly owned equipment.

7.6.31.2 Required Practices

- On projects with federal funds, the LG may not require a contractor to use equipment owned by the LG. Limited exceptions may be granted by TxDOT in unusual circumstances.

7.6.31.3 LG Responsibilities

- The LG must not include contract provisions requiring use of LG equipment unless approved in writing by TxDOT.

7.6.31.4 TxDOT District Responsibilities

- For projects with federal funds, the district must:
 - review bid proposals and requests for proposals to ensure they do not contain language requiring use of equipment owned by the LG; and
 - transmit the LG request to CST for action.

7.6.32 Railroad Insurance Provision

7.6.32.1 General

Contractors are required to purchase railroad protective liability insurance when work under the contract is located in whole or in part within railroad right of way. The insurance is for the benefit of the railroad. The [LGPP Manual](#) provides the federal and state statutes related to this provision.

7.6.32.2 Types of Coverage

Listed below are the types of coverage required.

- Coverage shall be limited to damage suffered by the railroad on account of occurrences arising out of the work of the contractor on or about the railroad right of way, independent of the railroad's general supervision or control, except as noted in [23 CFR 646.109\(b\)\(4\)](#).
- Coverage shall include:
 - death of or bodily injury to passengers of the railroad and employees of the railroad not covered by state workers' compensation laws;
 - personal property owned by or in the care, custody or control of the railroads;
 - the contractor or any of his agents or employees who suffer bodily injury or death as the result of acts of the railroad or its agents, regardless of the negligence of the railroad;

- negligence of only the following classes of railroad employees:
 - any supervisory employee of the railroad at the job site;
 - any employee of the railroad while operating, attached to or engaged on work trains or other railroad equipment at the job site who are assigned exclusively to the contractor; or
 - any employee of the railroad not within [23 CFR 646.109\(b\)\(4\)\(i\) or \(ii\)](#) who is specifically loaned or assigned to the work of the contractor for prevention of accidents or protection of property, the cost of whose services is borne specifically by the contractor or governmental authority.

7.6.32.3 Amounts of Coverage

The amounts of coverage required are as follows.

- The maximum dollar amounts of coverage to be reimbursed from federal funds with respect to bodily injury, death and property damage is limited to a combined amount of \$2 million per occurrence with an aggregate of \$6 million applying separately to each annual period except as provided in the paragraph below.
- In cases involving real and demonstrable danger of appreciably higher risks, higher dollar amounts of coverage for which premiums will be reimbursable from federal funds shall be allowed. These larger amounts will depend on circumstances and shall be written for the individual project in accordance with standard underwriting practices upon approval of TxDOT.

The [LGPP Manual](#) provides a description of the federal law requiring railroad insurance.

7.6.32.4 Required Practices

- On projects with federal funds, the LG must follow the federal statute. In addition, the LG must coordinate work on railroad right of way and include those provisions in the contract.

7.6.32.5 LG Responsibilities

- The LG must coordinate with the railroad.
- The LG must include a provision for the contractor's railroad liability insurance and other railroad provisions in bid documents and request for proposals.
- The LG must assure the liability insurance is in force and is maintained.

7.6.32.6 TxDOT District Responsibilities

- For design-bid-build projects with federal funds, the district must review bid proposals for inclusion of the insurance provision.
- There is no monitoring on design-build projects with federal funds and all projects without federal funds.
- While the railroads require insurance, TxDOT will not monitor insurance or other provisions the railroad may require of the LG or its contractor.

7.6.33 Retainage

7.6.33.1 General

Retainage is a portion of the construction contract fee that is withheld until the LG is satisfied the work is substantially complete. State law allows up to 5% of the contract price to be retained for contracts valued at \$5 million or more and up to 10% for contracts valued between \$400,000 and less than \$5 million until the entire improvement has been completed and accepted. The LG is required by [Texas Government Code §2252.032](#) to include in all contracts a provision defining when the project (or portion thereof) is substantially complete. However, federal concerns over prompt pay for subcontractors require one the following three options be used if federal funds are utilized.

- The LG may decline to hold retainage from prime contractors and prohibit prime contractors from holding retainage from subcontractors.
- The LG may decline to hold retainage from prime contractors and require a contract clause obligating prime contractors to make prompt and full payment of any retainage kept by prime contractor to the subcontractor within 30 days after the subcontractor's work is satisfactorily completed. The 30 days are changed to 10 days by [Texas Government Code §2251.022](#). The federal government allows states to be more restrictive.
- The LG may hold retainage from prime contractors and provide for prompt and regular incremental acceptances of portions of the prime contract, pay retainage to prime contractors based on these acceptances and require a contract clause obligating the prime contractor to pay all retainage owed to the subcontractor for satisfactory completion of the accepted work within 30 days (changed to 10 days by [Texas Government Code §2251.022](#)) after the payment to the prime contractor.

Projects with a contract value of \$400,000 or greater must comply with the requirements of Texas Government Code §§[2252.031](#) and [.032](#).

- The definition of “retainage” is revised to mean the “percentage” of a public work contract payment withheld by a governmental entity to secure performance of the contract.
- A definition of a “warranty period” is added meaning the period any work performed under the contract is subject to a warranty of work or labor. Such warranty periods can only cover work performed under the contract.

For contracts valued under \$5 million, retainage withheld cannot exceed 10% of the contract price or 10% of any item in a bid schedule or schedule of values for the project.

For contracts valued at \$5 million or more, retainage withheld cannot exceed 5% of the contract price or 5% of any item in a bid schedule or schedule of values for the project.

If retainage is kept, the contractor may request the amount retained be deposited with a state or national bank selected by the contractor that has its main office or a branch office in this state. The LG must approve the request. For contracts valued at less than \$5 million, all retainage in excess of 5% must be deposited in an interest-bearing account.

Interest earned is paid to the contractor, unless specified otherwise under the trust agreement. The bank is responsible for all investments and amounts resulting from the deposits of the retained amount until released.

The [LGPP Manual](#) describes the state and federal statutes and policies related to retainage.

7.6.33.2 Required Practices

- For projects with federal or state funds, the LG must adopt [Item 9L of TxDOT's LG Standard Specifications](#) with the applicable special provision approved by FHWA or submit an alternate option complying with [49 CFR 26.29](#) to TxDOT for approval by FHWA. All contracts must include a provision defining when the project (or portion thereof) is substantially complete.

7.6.33.3 LG Responsibilities

- If retainage is not kept, the LG must adopt [Item 9L of TxDOT's LG Standard Specifications](#) including the FHWA-approved special provision and include them in the bid documents and request for proposals.
- If retainage is kept, the LG must receive TxDOT approval of the proposed retention schedule and policy to be included in the bid documents and request for proposals.

7.6.33.4 TxDOT District Responsibilities

- For projects with state or federal funds, if retainage is not kept, the district must review bid documents to assure applicable TxDOT specifications and the latest FHWA-approved special provisions are included.
- For projects with state or federal funds, if retainage is kept, the district must review the bid documents to assure incremental final acceptance of subcontracted work will be done.

7.6.34 Safety

7.6.34.1 General

FHWA is required by law to ensure compliance with construction safety standards. Section VII.3 of [Form FHWA-1273](#) specifically grants USDOL representatives right of entry to projects using federal-aid funds. Specific subsections of Form FHWA-1273 include the following.

- *Section VII.1:* The provisions of this section require the contractor to comply with all applicable federal, state and local laws governing safety, health and sanitation. The contractor is required to provide all safeguards, safety devices and protective equipment and is required to take such actions, as deemed necessary, to protect the life and health of employees and the safety of the public and property.
- *Section VII.2:* This section states the contractor or subcontractor may not require or permit a laborer or mechanic to perform work under conditions that are unsanitary, hazardous or dangerous to health or safety as determined by construction safety standards.
- *Section VII.3:* This section sets forth the right of entry of USDOL representatives to any site of contract performance for the inspection or investigation of compliance with [Occupational Safety and Health Administration \(OSHA\) standards](#).

The LG has enforcement responsibilities of any applicable state standards. In addition, the LG should cooperate with and alert other responsible agencies regarding violations and provide full cooperation and assistance as required. The [LGPP Manual](#) contains the federal and state requirements regulating safety standards.

7.6.34.2 Required Practices

- All private employers are to follow federal and state safety standards.

7.6.34.3 LG Responsibilities

- The LG must include provisions in the contract to implement federal and state safety requirements.

- The LG must cooperate with federal and state safety agency as necessary.

7.6.34.4 TxDOT District Responsibilities

- For projects with state or federal funds, the district must review the bid proposal or request for proposal for language requiring compliance with federal and state safety requirements.

7.6.35 Subcontracting

7.6.35.1 General

Federal regulations impose limitations on the amount of work than can be subcontracted. This provision prohibits a prime contractor from “brokering” (subletting all contract work). Subcontracting limitations are included in [Form FHWA-1273](#). The following sections address the various parts of the regulation.

- *Section VI.1:* The contractor is required to perform work amounting to not less than 30% of the original contract amount, excluding specialty items, with his own organization. Specialty items are to be designated by the LG and include items requiring highly specialized knowledge, abilities or equipment. These items require highly specialized knowledge, abilities or equipment not ordinarily available in the type of contracting organization qualified and expected to bid on the contract.
- *Section VI.2:* This section clarifies the contract amount indicated in Section VI.1 to include the cost of materials and manufactured products purchased or produced by the contractor.
- *Section VI.3:* The provisions of this section require the contractor to provide competent supervision of the project. The contractor must employ a superintendent or foreman who will have full authority to direct the work and be in charge of the operation.
- *Section VI.4:* No portion of the work may be sublet, assigned or otherwise subcontracted without the written consent of the LG. Subcontract approval shall be based on satisfactory evidence that each subcontract is in writing and contains all the pertinent provisions, including ensuring the provisions of [Form FHWA-1273](#) are physically a part of each subcontract. The approval of a subcontract does not relieve the contractor of responsibility for fulfillment of the contract.

FHWA requires each subcontract to be approved in writing by the LG. This allows some control to screen subcontractors that are not qualified or may be ineligible (e.g., debarred). It also assures all federal and state requirements will be included in the subcontract. In order to reduce the amount of paper flow, the FHWA division administrator may permit the LG to satisfy the subcontract approval requirement by instituting a certification process. This process must require the contractor to certify each subcontract arrangement will be in the form of a written agreement containing all the pertinent provisions and requirements of the

prime contract. The LG must demonstrate it has an acceptable plan for monitoring such a certification.

7.6.35.2 Employee Lease Agreements

Employee lease agreements are typically not considered a subcontract and are not subject to the 30% subcontract limitation. Employee lease arrangements are acceptable for federal-aid projects if the leased employees are under the direct supervision and control of the contractor's superintendent or supervisor. Leased employees may be considered to be part of the prime's "own organization" if:

- the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- the prime contractor remains responsible for the quality of the work of the leased employees;
- the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other federal regulatory requirements.

The key issue is supervision and control of any leased personnel. If the leased personnel are treated as employees of the prime contractor and would be considered as such but for their actual employment by a leasing agency, then for purposes of [23 CFR 635.116\(a\)](#) they should be considered employees of the prime contractor's organization.

The [LGPP Manual](#) lists the federal and state requirements related to subcontracting.

7.6.35.3 Required Practices

- For all projects with federal funds, the LG must adopt the [TxDOT LG Standard Specification Article Item 8L](#), including 30% limitation, [Form FHWA-1273](#), prompt pay and other policies. The LG will include TxDOT's [Contractor's Assurance](#) document in all contract documents.
- For all projects with state funds, the 30% subcontracting limitation is reduced to 25% for HUB firms.
- For projects with state or federal funds, the LG may not approve subcontracts with firms on the state or federal debarred list.
- For design-build projects, the 30% subcontracting limitation does not apply.

7.6.35.4 LG Responsibilities

- The LG must adopt [TxDOT's LG Standard Specification Item 8L](#).
- The LG must include [Form FHWA-1273](#) in the contract.
- The LG must include TxDOT's [Contractor's Assurance](#) in bid documents and monitor throughout the project.

7.6.35.5 TxDOT District Responsibilities

- For projects with state or federal funds, the district must review bid proposals for design-bid-build projects to ensure all applicable contract requirements are included.

7.6.36 Termination of Contract

7.6.36.1 General

Termination is an action taken by the contracting agency to cancel a contract. Federal-aid contracts exceeding \$10,000 must contain suitable provisions for termination by the LG. The provisions must identify the manner by which the termination will be effected and the basis for settlement. There may be a number of grounds to warrant termination, including termination for cause, termination for convenience and termination for default.

Prior to termination of a federal-aid contract for which TxDOT concurred in the award, the LG shall consult with and receive the concurrence of TxDOT. Federal-aid participation in a terminated contract is decided by the individual merits of the particular case. However, in no instance will federal funds participate in any allowance for anticipated profits on work not performed.

If the LG awards a contract for completion of a federal-aid contract previously terminated for default, FHWA policy limits the amount eligible for federal participation. The amount eligible is the lesser of the original contract or the sum of the new contract plus the payments made under the original contract.

- *Termination for Cause or Convenience:* Terminations for cause or for convenience are for circumstance beyond the contractor's control. AASHTO lists the following conditions as grounds for termination for cause:
 - executive orders of the president for war, national defense or national emergency;
 - restraining orders or injunction obtained by third-party action; or
 - "acts of God."
- Grounds for termination for convenience include circumstances for which it is in the best interest of the contracting agency to cancel the contract.

- In terminating a contract for cause or for convenience, the LG gives written notice to the contractor, relieving it from further contractual obligation. The contractor will be paid for completed work, for work necessary to preserve and protect the completed work, and for materials stockpiled for the project.
- Termination for Default: Terminations for default are for circumstances deemed to be under the contractor's control. AASHTO guide specifications include the following as circumstances for termination for default:
 - failure to begin work under the contract within the time specified in the "notice to proceed;"
 - failure to perform the work with sufficient workmen and equipment or sufficient materials to assure the prompt completion of the project;
 - performance of the work not in conformance with the contract requirements or refusal to remove or replace rejected materials or unacceptable work;
 - discontinuance of the work;
 - failure to resume work that has been discontinued within a reasonable period of time after notice to resume;
 - committal of any act of bankruptcy or insolvency;
 - allowing any final judgment to remain unsatisfied;
 - making an assignment for the benefit of creditors; or
 - failure to comply with contract requirements regarding payment of minimum prevailing wages or EEO.
- The specifications typically require notice to the contractor and surety of default considerations by the LG. The notice gives the contractor and the surety a specified period of time, such as 10 days, to respond or to proceed with the work. If that period expires without response, the LG may declare the contractor in default and notify the contractor and surety that the contractor is in default and the contract is void. The surety is then liable under conditions of the performance bond and must provide funds to complete the project, up to the full value of the bond. To avoid paying the bond, the surety may elect to assign another contractor to complete the work. However, if the surety is unable or unwilling to assign another contractor, the funds will be transferred to the LG.

- If the surety awards a second contract, no action is required of FHWA or TxDOT since the surety's contract is considered an extension of the original contract. However, if the LG awards a contract to complete the work covered by a defaulted federal-aid contract, normal federal-aid procedures for PS&E advertising and award must be followed. The federal-aid funding for the project will be limited to the lesser of the original contract value or the amount spent under the defaulted contract plus the second contract.

The [LGPP Manual](#) describes the applicable state and federal laws and statutes for termination of a contract.

7.6.36.2 Required Practices

- All projects with state or federal funds must have termination language in the contract to protect the state or federal interest. The LG must adopt [TxDOT's LG Standard Specification Item 8L](#) or submit alternate contract language for TxDOT approval.

7.6.36.3 LG Responsibilities

- The LG must adopt [TxDOT's LG Standard Specification Item 8L](#) or develop comparable contract language for termination of contract and include it in the bid documents or request for proposals.
- The LG must request TxDOT approval of any termination action.

7.6.36.4 TxDOT District Responsibilities

- For projects with state or federal funds:
 - The district must transmit the LG's alternate contract language to CST for approval.
 - The LG will take the termination action. The district must transmit the LG's request to terminate a contract to CST for concurrence and determination of extent of participation.

7.6.37 Time Extensions

7.6.37.1 General

Contract time extensions granted by a LG affecting project costs or liquidated damages shall be subject to the concurrence of TxDOT and will be considered in determining the amount of federal participation. Details regarding specific time extensions that must be followed and properly documented are found in Chapter 9 - Construction of this [Guide](#) and the corresponding [LGPP Manual](#).

7.6.38 Title VI Compliance

7.6.38.1 General

[Title VI of the Civil Rights Act of 1964](#) is the federal law stating, “no person in the United States shall, on the grounds of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program to which this part applies.” Additional regulations and statutes broadened nondiscrimination to include religion, sex, age, retaliation and disability. The [LGPP Manual](#) provides a description of the statutes associated with Title VI compliance.

It is the policy of TxDOT that discrimination based on race, color, national origin, sex, age or disability shall not occur in connection with any of its programs or activities. Any recipient or subrecipient receiving federal financial assistance shall adopt this assurance or provide one, and follow all applicable laws, regulations and guidance.

7.6.38.2 Required Practices

- Pursuant to [23 U.S.C. 302](#), FHWA’s primary recipient is the state highway transportation agency. In Texas, TxDOT is that primary recipient. TxDOT and its subrecipients and contractors, irrespective of tier, are required to prevent discrimination and ensure nondiscrimination in all programs and activities whether they are federally funded or not.
- Subrecipients of federal financial assistance include, but are not limited to, cities, counties, contractors, consultants, suppliers, universities, colleges and planning agencies. TxDOT or FHWA will address any discovered instance of discriminatory distribution of program access to or use of services and benefits. Program, facility and records access shall be granted at any time to TxDOT, the State Auditor’s Office, USDOT and other federal agencies to assure compliance with these regulations.
- A Title VI complaint may be filed by any individual or individuals who allege they have been subjected to discrimination or adverse impact under any TxDOT program or activity based on race, color, national origin, sex, age, religion or disability. The complaint must be filed within 180 days of the date of the alleged act of discrimination. The [External Discrimination Complaint Form](#) may be obtained from CIV.

7.6.38.3 LG Responsibilities

LG recipients should provide methods of administration designed to ensure they and all subrecipients comply with Title VI and remedy any existing compliance problems. The minimum components of this requirement are that the LG must do the following.

- Develop specific outreach plan for notifying subrecipients through meetings and written documents of the Title VI requirements applying to the federally funded state program.
- Provide training for local program staff of subrecipients in the federal agency’s nondiscrimination policies and procedures.

- Establish procedures for processing complaints, notifying TxDOT and FHWA, and informing beneficiaries of their right to file an external complaint of discrimination.
- Develop a program to assess and report on the status of its Title VI compliance.
- Establish plans for bringing discriminatory programs into compliance within a specified time period.
- Assist CIV in the Title VI review of the LG and subrecipient contractor program areas and activities. Where applicable, revise policies, procedures and directives to include Title VI requirements.
- Distribute a policy statement expressing the LG's commitment to the nondiscrimination provisions of Title VI. The policy statement shall be circulated throughout the recipient's organization and to the general public. Such information shall be circulated where appropriate in languages other than English.
- Take affirmative action to correct any deficiencies found by FHWA within a reasonable time period, not to exceed 90 days, in order to implement Title VI compliance.
- Process complaints of discrimination consistent with the LG's procedures. External complaints of discrimination shall be forwarded to CIV for investigation. Investigations shall be conducted by CIV personnel trained in discrimination complaint investigations.
- Collect statistical data (race, color, national origin, sex, age, disability) of participation in, and beneficiaries of, the programs and activities conducted by the recipient.
- Participate in training programs on Title VI and related statutes.
- Prepare a yearly report of Title VI accomplishments for the past year and goals for the next year.
- Distribute Title VI information for dissemination to the general public and, when appropriate, in languages other than English.
- Establish procedures to identify and eliminate discrimination when found to exist.
- Provide LG's program to TxDOT for review.

7.6.38.4 TxDOT District Responsibilities

- TxDOT may perform compliance reviews to determine if the LG is adequately adhering to the conditions set forth under [23 CFR 200.9](#).

7.6.39 Trench Safety

7.6.39.1 General

Provisions of OSHA apply to all federal, state and LG projects. According to OSHA, dozens of people are killed each year and hundreds are injured in trenches on construction sites. OSHA has established several trench safety requirements, such as:

- trenches 5-feet deep or more require a trench protection system;
- trenches 20-feet deep or more require the trench protection system to be designed by a registered professional engineer;
- allowable trench protection systems include:
 - sloping – protects workers by cutting back the trench wall at an angle inclined away from the excavation;
 - shoring – protects workers by installing aluminum hydraulic or other types of supports to prevent soil movement;
 - shielding – protects workers by using trench boxes or other types of supports to prevent soil cave-ins; and
- trenches required to be inspected daily and, as conditions change, by a competent person prior to worker entry to ensure elimination of excavation hazards.

To assure trench safety receives the attention it deserves, [Texas Health and Safety Code, Chapter 756 Subchapter C](#) outlines several construction project requirements. The state and federal requirements for trench safety are included in the [LGPP Manual](#).

7.6.39.2 Required Practices

- Requirements of [Texas Health and Safety Code §756.022](#) apply to all projects with state or private funding whether on-system or off-system.
- Requirements of [Texas Health and Safety Code §756.023](#) apply to all projects with city or county funding whether on system or off system.

7.6.39.3 LG Responsibilities

- The LG must include the required provisions in the bid documents.

7.6.39.4 TxDOT District Responsibilities

- The district must review bid documents for required provisions.

7.6.40 Warranties and Warranty Clauses

7.6.40.1 General

With certain limitations, warranties may be specified for LG construction projects. The LG may include warranty provisions in national highway system construction contracts in accordance with the following.

- Warranty provisions shall be for a specific construction product or feature. A general warranty for the entire project is unacceptable since the contractor does not control the design process or make decisions during that phase.
- Warranties may not cover items of maintenance ineligible for federal participation. An example of this might be a warranty for guardrail construction where it would be inappropriate to warrant routine damage done to the guardrail by vehicle impacts.
- Contractors are not to be required to warrant items over which they have no control. An example of this might be a warranty for asphaltic concrete pavement. It would be appropriate for the contractor to warrant the smoothness of the pavement or the rutting performance, but inappropriate to warrant reflective cracking that might occur due to pre-existing underlying layers regardless of how well the contractor constructs the new pavement.
- All warranty requirements and subsequent revisions shall be submitted to TxDOT for advance approval.
- The LG may follow TxDOT procedures regarding the inclusion of warranty provisions in non-national highway system federal-aid contracts.

Currently the regulations do not restrict the duration of the warranty. However, practical experience has shown that 2- to 5-year warranties are common, and warranties beyond 5 years may not be as cost effective due to bonding or surety concerns. Warranty provisions have been used for asphalt concrete pavements, bridge painting, traffic striping and bridge expansion joints. The [LGPP Manual](#) provides the federal statutes relating to warranties.

7.6.40.2 Required Practices

- For projects with state or federal funds, the LG must submit warranty procedures, including contract language, for TxDOT approval.

7.6.40.3 LG Responsibilities

- The LG must submit warranty procedures to TxDOT for approval.

7.6.40.4 TxDOT District Responsibilities

- For design-bid-build and design-build projects with state or federal funds, the district must review the LG's warranty process and contact language for approval.

7.6.41 Workers' Compensation Insurance

7.6.41.1 General

The state of Texas requires contractors and subcontractors performing on a building or construction contract with a governmental entity to provide workers' compensation insurance coverage for each individual employed on the public project. The [LGPP Manual](#) lists the state statute regulating workers' compensation insurance.

7.6.41.2 Required Practices

- For all projects, the LG must require the contractor to provide written certification of the workers' compensation insurance coverage.

7.6.41.3 LG Responsibilities

- Prior to contract execution, the LG must require the contractor to submit written certification that workers' compensation insurance coverage is provided to each contractor and subcontractor employee working on the project.

7.6.41.4 TxDOT District Responsibilities

- For all projects in which TxDOT must concur in the award, the district must ensure the required certification is received before recommending concurrence in the award.

8 Letting and Award

8.1 Introduction

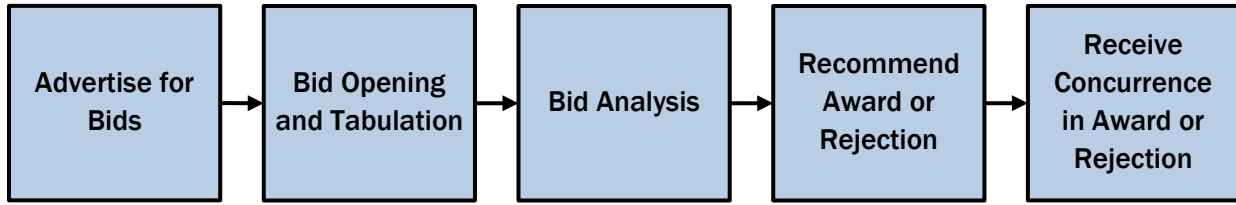
The Contracting phase of a project involving a local government (LG) and the Texas Department of Transportation (TxDOT) includes three stages: bid document preparation; letting and award; and contract execution. The first stage, bid document preparation, is included in [Chapter 7 - Plans, Specifications & Estimates \(PS&E\) Development](#). The second stage, letting and award, is included in this chapter. The last stage, contract execution, is included at the beginning of [Chapter 9 - Construction](#). The tasks associated with the letting and award stage are described in detail with references to two types of procurement: design-bid-build; and design-build.

Before a transportation project can be placed under contract, the contracting agency must “let” it, or make the project available for bidding. Letting involves the request for a submission of bids through a public advertisement, the receipt of bids and the selection of the most responsive bid using a competitive selection process based on qualifications, best value, experience or any other factors included by the LG or required by TxDOT or federal funding requirements. When stated in the advance funding agreement (AFA), the LG is responsible for the letting process for local projects, although TxDOT maintains oversight for projects involving state or federal funding. A well-planned and executed bidding process allows the LG and TxDOT to get the most competitive price and allows businesses to compete fairly for business.

[Chapter 4 - Preliminary Engineering and Design](#) describes the process for preparing and obtaining TxDOT approval of the procurement procedures. [Chapter 7 - Plans, Specifications and Estimates \(PS&E\) Development](#) outlines the procedures for preparing and obtaining TxDOT approval for the PS&E and bid documents. The LG must follow the approved procedures, submit the local funds to TxDOT for costs to be incurred by TxDOT for oversight (as required by the AFA) and obtain TxDOT approval prior to beginning the letting phase (advertising) and construction phase (contract execution) of the project. This chapter of the Local Government Project Management Guide (LGPM Guide) describes the responsibilities of the LG and TxDOT during the letting phase of the project.

The following are typical tasks associated with the letting phase of the project:

- advertise for bids;
- issue addenda (if any);
- open bids publicly;
- evaluate bids;
- make recommendation to award, reject all bids or cancel project; and
- receive concurrence with award or rejection.



The companion chapter of the [Local Government Projects Policy Manual \(LGPP Manual\)](#) describes the state and federal laws and statutes relating to the Letting and Award phase of the project. A workflow of this phase is presented in more detail in the [LG Project Process Development Flowchart](#).

8.2 Letting

8.2.1 Overview

As the initial step in the letting phase of a state-let transportation project, TxDOT publishes a request for a submission of bids through notice on the [Electronic State Business Daily](#) and publishes a [letting schedule](#) on its website. For local-let projects, the LG is responsible for publishing official notice that includes letting and project information. This letting section addresses the steps needed for letting the project, starting with the TxDOT approval to proceed [as provided in the state letter of authority (SLOA)] and ending with the bid analysis.

8.2.2 State Letter of Authority

As described in [Chapter 4 - Preliminary Engineering and Design](#), a SLOA is required for a LG-let construction project prior to initiating the letting phase. The SLOA from TxDOT to the LG functions as the notice to proceed with the letting phase and must be signed and dated prior to advertisement of the project. For projects where the LG is performing construction by force account, the SLOA must be signed and dated prior to commencement of construction by the LG's forces. Federal-aid projects require a federal project authorization and agreement (FPAA) in addition to the SLOA.

8.2.3 Advertising

8.2.3.1 General

An advertisement is the public announcement to invite bids for work to be performed or materials to be furnished. Advertisement of a construction contract proposal can take the form of a classified advertisement in a newspaper or any other form permitted by state law and acceptable to the Federal Highway Administration (FHWA). In Texas, advertisement of a contract proposal legally takes the form of a classified advertisement published in a newspaper. Additional methods to announce upcoming projects, which are allowed but not considered the "official notice," include advertisements in trade journals, bulletins and mailed notices to potential bidders (i.e. from a mailing list), posting notice on the LG's website, etc.

The Texas Comptroller of Public Accounts has a web page called the [Electronic State Business Daily](#). In addition to the required advertisement in a newspaper, TxDOT encourages LGs to post their contracts in the Electronic State Business Daily. Internet advertising is acceptable for federal-aid and state-funded projects as a supplement to traditional means but does not meet the requirement of "official notice."

LGs may only advertise a project after receiving TxDOT approval of the PS&E package and the execution of a SLOA and FPAA, if applicable.

The LG's advertising policy and practices must assure free and open competition. The requirements are described in the [LGPP Manual](#). On federal-aid projects, the minimum advertisement period is 3 weeks (21 days). With prior approval by TxDOT, exceptions are permitted when circumstances warrant. For large or complex projects, the LG should consider an advertisement period longer than 3 weeks to permit prospective bidders adequate time to prepare a responsive bid proposal. Scheduling a pre-bid meeting to

address prospective contractors' concerns and questions may be appropriate but is not required by state or federal regulations.

Any proposal solicitation package or notice for advertising needs to include all information necessary to allow a responsible contractor to make a responsive bid, proposal or other applicable expression of interest for the procurement contract, including at a minimum the following information:

- the scope of work;
- the location where the bidding documents, plans, specifications or other data may be examined or purchased by all bidders; and
- the time and place for submitting bids, and the time and place where bids will be opened.

The [LGPP Manual](#) provides the federal and state regulations associated with advertising a project.

8.2.3.2 Required Practices

- For projects with state or federal funds, the LG may not advertise for receipt of bids until so authorized by TxDOT (through execution of a SLOA). If the project has federal funds, authorization from TxDOT will be after FHWA issues a FPAA.
- For projects with federal or state funds, the LG is required to comply with [23 CFR 635.112](#) and applicable sections of the Local Government Code. The LG is encouraged to use the [Electronic State Business Daily](#).
- For projects with no federal or state funds, the LG may follow its own advertising procedures. The LG is encouraged to use the Electronic State Business Daily.

8.2.3.3 LG Responsibilities

- The LG may not advertise until after it has received authorization from TxDOT.
- The LG must advertise a minimum of 3 weeks in advance of the bid opening for projects with federal funds.
- For projects with only state or local funds, the advertising period must comply with applicable sections of the Local Government Code.
- The LG's advertisement must be published in at least one newspaper of general circulation in accordance with the applicable sections of the Local Government Code. The advertisement for bids must include a notice that:
 - describes the scope of work;

- states the location where the bidding documents, plans, specifications or other data may be examined or purchased by all bidders;
 - states the time and place for submitting bids, and the time and place where bids will be opened; and
 - indicates if the information is available on a website.
- The LG should consider posting the advertisement on the [Electronic State Business Daily](#).
 - For design-build projects, the LG should follow the provisions in the TxDOT-approved contractor selection process.

8.2.3.4 TxDOT District Responsibilities

- For projects with state or federal funds, the district must:
 - review the LG’s process for advertising to ensure compliance with the applicable statutes and policy statements. The district should submit questions and possible non-compliance issues to the Local Government Programs Section (LGP). LGP will coordinate with other TxDOT divisions to address and answer any questions related to advertising the project; and
 - check that the advertisement appears in the newspaper(s) or other advertising mediums after the LG receives authorization from TxDOT.
- For design-bid-build projects with state or federal funds, the district must conduct spot checks of newspaper advertisements for compliance with statutes (content of advertisement, number of newspapers and area of circulation).

8.2.4 Distribution of Bid Documents

8.2.4.1 General

For projects with federal funds, the advertisement and approved plans and specifications must be available to bidders a minimum of 3 weeks prior to opening of bids in accordance with [23 CFR 635.112](#). Shorter periods may be approved by TxDOT in special cases when justified. State requirements must be followed for projects with state or local funds with no federal funds. The [LGPP Manual](#) provides the federal and state regulations governing the distribution of bid documents during the letting process.

8.2.4.2 Required Practices

- The distribution of bid documents will be to all bidders meeting prequalification requirements, if any, in accordance with the advertisement or request for proposals.

8.2.4.3 LG Responsibilities

- The LG must assure the approved bid documents are available at least 3 weeks before the bid opening for projects with federal funds and in accordance with state and local regulations in all other cases.
- For design-build projects, the LG must follow the approved request for proposals.

8.2.4.4 TxDOT District Responsibilities

- For projects with state or federal funds, the district must conduct spot checks to ensure the required procedures are followed.

8.2.5 Addenda**8.2.5.1 General**

All bidders must bid the project on the same or comparable basis, so no particular advantage or disadvantage accrues to any potential bidder or to the LG. Since an addendum issued during an advertisement period could have a profound impact, not just on bid prices but also on the basis for bid comparisons, all prospective bidders must be made aware of each addendum as expeditiously as possible.

The definition of “expeditious,” in terms of an adequate time frame to get an addendum out to all prospective bidders prior to the bid opening, is subjective. Each case should be judged on the complexity of the addendum. The most important consideration in an addendum process is to give all potential bidders enough time to fully evaluate the effect of the changes and to adjust their bid accordingly. The LG should develop policy guidance identifying an adequate time frame.

Since an addendum constitutes a deviation from the TxDOT-approved PS&E, the obligation of federal-aid funds may be impacted by the change. Therefore, TxDOT must approve an addendum prior to release to the prospective bidders. Any approval or concurrence will be based on the LG’s assurance that all potential bidders will receive the approved addendum. The [LGPP Manual](#) describes the federal and state regulations associated with addenda.

8.2.5.2 Required Practices

- For projects with federal or state funds, TxDOT must approve any proposed addenda.
- For all projects on the state highway system, projects with federal or state funds, or projects administered by a regional mobility authority, all addenda must have TxDOT approval prior to award of the contract. The LG should verbally advise TxDOT of any proposed addenda before release to prospective bidders to avoid potential participation issues.
 - “Major” addenda must be approved by TxDOT prior to release to prospective bidders.

- “Minor” addenda may be approved by TxDOT after release to bidders but must be approved prior to award of contract. Minor addenda include minor quantity changes and correction of obvious errors but does not include changes to geometric features, approved specifications or safety appurtenances.

8.2.5.3 LG Responsibilities

- The LG must assure all addenda are available to all bidders and must document that all bidders received all addenda.
- The LG must secure TxDOT approval of “major” addenda prior to release.
- The LG must secure TxDOT approval of “minor” addenda prior to contract award.

8.2.5.4 TxDOT District Responsibilities

- For project with federal or state funds, the district must review and approve any proposed addenda on the project.
- For all projects requiring TxDOT approval of addenda, the district must reach agreement with the LG on the process to submit addenda to the district. This process should be understood by both the district and LG before advertising for bids or issuing a request for proposals.
- The district may request review of proposed addenda by TxDOT’s Design (DES) Division prior to district approval. In these instances, addenda should be sent to DES as soon as practical following receipt from the LG.

8.2.6 Bid Opening and Tabulation

8.2.6.1 General

The bid opening is a public forum for the announcement of all bids and is the point in time where the bids are opened and read aloud. Bid tabulations provide a means of evaluating bids and a mechanism for tracking construction costs.

8.2.6.2 Bid Opening

The specific details of the advertisement and bid opening procedures are governed by federal and state statutes, which require all bids to be opened in a public meeting in the presence of any interested bidders.

Reasons for not reading a bid include the bid itself being nonresponsive and/or the bidder is determined to not be responsible. The differences between a responsive bid and responsible bidder are:

- a *responsive bid* meets all the requirements of the advertisement and proposal; and
- a *responsible bidder* is physically organized and equipped with the financial wherewithal to undertake and complete the contract.

Some reasons for not reading a bid due to the bid being nonresponsive may include:

- failure to submit bid by deadline stated in advertisement or addenda;
- failure to sign the bid;
- failure to furnish the required bid bond;
- failure to include a unit bid price for each item;
- failure to acknowledge all addenda;
- failure to include a total amount for the bid;
- failure to certify non-collusion affidavit and child support statement;
- failure to submit Child Support Business Ownership form;
- failure to commit to the achievement of the disadvantaged business enterprise (DBE) contract goals or demonstrate good faith efforts to do so; or
- inclusion of conditions or qualifications not provided for in the specifications.

The above examples do not include all possible items that could make a bid nonresponsive. The LG's specifications will define what constitutes a nonresponsive bid. Therefore, the LG's bidding documents must clearly identify those requirements with which the bidder must comply to have a responsive bid.

Just as the bid may be rejected for being nonresponsive, a bid may also be rejected on the grounds the bidder is not a responsible bidder. A bidder may be deemed not responsible because of a failure to meet the LG's qualification requirements as outlined in the bid documents or because of state or federal suspension/debarment action. A determination of non-responsibility by the LG should be documented in writing, and the contractor should be given "due process" to respond to such charges. A determination of non-responsibility prior to the receipt of bids is considered a prequalification process. Confirmation that the bidder meets all qualification requirements stated in the bid documents after receipt of bids is considered a post-qualification process. The LG is highly encouraged to develop a procedure for verifying the eligibility of participants prior to the award of the contract, including checking the excluded parties list on the federal [System for Award Management](#) website and the [state list of currently debarred/sanctioned contractors](#). The LG must properly document its evaluation of each bidder's qualification in its project records.

In summary, a successful bid opening and bid tabulation process should identify the responsible bidder submitting the lowest responsive bid. All bids are required to be opened in a public meeting allowing attendance by all interested bidders.

8.2.6.3 Combined Certifications/Signature Sheets

Frequently, bids are rejected as nonresponsive because the contractor inadvertently failed to sign one of the many certifications required. In an effort to maximize competition, some entities use either a combined certification sheet or include in the bid proposal packet a detailed listing of the certifications required and their location within the packet.

8.2.6.4 Bid Tabulations

As a basis for tracking current construction costs and forecasting future construction costs, the LG must provide bid tabulation data to TxDOT.

The [LGPP Manual](#) provides further information on state and federal laws governing the bid opening and tabulation process.

8.2.6.5 Required Practices

- For all projects with federal or state funds using other than a design-build process, the LG must open and read bids in a public forum.
- For all design-build projects with federal or state funds, the LG must open proposals in accordance with the solicitation.
- For all projects with federal or state funds, or all projects on the state highway system regardless of funding, the LG must submit bid tabulation (post-award tabulation of proposed prices for design-build) to TxDOT as part of a request for TxDOT to concur in award.

8.2.6.6 LG Responsibilities

- The LG must submit its procedure to TxDOT to assure the public opening of bids.
- The LG must open and read bids in a public forum.
- The LG must submit a bid tabulation to TxDOT.
- For design-build projects, the LG must open the proposals in accordance with the solicitation.
- For design-build projects, the LG should forward the post-award tabulation to TxDOT.

8.2.6.7 TxDOT District Responsibilities

- For projects with state or federal funds, the LG must submit a bid tabulation to the district. The district will use the bid tabulation as part of its recommendation to TxDOT's Construction Division (CST) to concur in award.
- Design-bid-build – The district is strongly encouraged to attend the public bid opening, monitor the process for compliance with the regulations and document its attendance in the TxDOT project files.
- Design-build – The district is not required to monitor receipt and evaluation of responses to requests for proposals but must assure the LG submits a tabulation of proposed prices. If the project is performed by a regional mobility authority, forward the tabulation to TxDOT's Strategic Projects (SPD) Division.

8.2.7 Bid Analysis

8.2.7.1 General

The engineer's estimate is part of the PS&E. One of the purposes of the estimate is to serve as a guide to analyze bids. The estimate should be accurate, credible and based on realistic data. TxDOT maintains written procedures for justifying the award of a contract or for rejection of the bids when the low bid appears excessive or rejection is being considered for other reasons (refer to [Chapter 6: Letting of TxDOT's Project Development Process Manual](#) for more information).

The bid analysis process is an examination of the unit bid prices for reasonable conformance with the engineer's estimated prices. Beyond the comparison of prices, other factors that a bid analysis may consider include:

- number of bids;
- distribution or range of the bids;
- identity and geographic location of the bidders;
- urgency of the project;
- unbalancing of bids;
- current market conditions and workloads;
- comparison of bid prices with similar projects in the letting;
- justification for significant bid price differences;
- potential for savings if the project is re-advertised; and
- other factors as warranted.

Not all of these factors need to be considered for bids indicating reasonable prices or showing good competition. However, when the low bid differs from the engineer's estimate by an unreasonable amount, a thorough analysis of all bids should be undertaken to justify award of the contract. Contractors may be contacted to request clarification regarding their submission, but this is in no way an opportunity to negotiate bid prices. In order to justify award of a contract under these circumstances, the following questions should be considered.

- Was competition good?
- Is the timing of the project award critical?
- Would deferral be contrary to the public interest?
- Would re-advertisement result in higher or lower bids?
- Was there an error in the engineer's estimate?

8.2.7.2 Unbalanced Bids

The LG should perform an analysis of the tabulations and the project estimate to determine the presence of unbalanced bids. As defined in [23 CFR 635.102](#), the two types of unbalanced bids are:

- a *mathematically* unbalanced bid – a bid containing lump sum or unit bid items that do not reasonably reflect the actual costs (plus reasonable profit, overhead costs and other indirect costs) to construct the item; and
- a *materially* unbalanced bid – a bid generating reasonable doubt that an award to bidder would result in the lowest ultimate cost to the government (a materially unbalanced bid should not be awarded).

The LG must obtain TxDOT concurrence on the determination of whether or not a bid is unbalanced.

To detect mathematical unbalancing, the unit bid items will be evaluated for reasonable conformance with the engineer's estimate and compared with the other bids received. There are no definitive parameters (e.g., an amount or percent of variance from the engineer's estimate) constituting an unbalanced bid. The degree of unbalancing of a bid may depend on the reason for the unbalancing.

There may be situations where the quantity of an item could vary due to inaccuracies in the original quantity or cost estimating, errors in the plans, changes in site conditions or design, etc. In these situations, the bids will be further evaluated to determine if the low bidder would ultimately yield the lowest cost. If unbalancing creates a reasonable doubt that the award would result in the lowest ultimate cost, the bid is materially unbalanced and TxDOT will recommend rejection or other steps to be taken to protect the government's interest.

Additional information related to unbalanced bid determination is available in [Chapter 6: Letting of TxDOT's Project Development Process Manual](#).

8.2.7.3 Lowest Bidder

The award of a contract, if awarded, must be made to the lowest responsive bid submitted by a responsible bidder. Negotiations of bid item prices is strictly prohibited from the time of bid opening to construction contract execution. Federal and state regulations related to the bid analysis are described in the [LGPP Manual](#). The required practices, LG responsibilities and TxDOT responsibilities are included under [Concurrence in Award](#) below.

8.3 Contract Award

8.3.1 Overview

The contract award process follows the bid analysis and includes the award of the contract to the selected bidder. Contract award is the commitment to go forward with the project. The letting phase of the project includes the selection of the bidder for the award of the contract by the LG and the concurrence in the award by TxDOT. The actual execution of the contract is included at the beginning of the construction phase of the project and is described in [Chapter 9 - Construction](#).

8.3.2 Concurrence in Award

8.3.2.1 General

Concurrence in contract award is not just a formality – it is the authorization from TxDOT to the LG to proceed with construction. The LG must formally request concurrence by TxDOT in the award of contracts. Federal policy requires contracts to be awarded on the basis of the lowest responsive bid submitted by a bidder meeting the criteria of responsibility. If the LG determines the lowest bidder is not responsive or the bidder is not responsible, it must obtain TxDOT's concurrence before making an award to the next lowest bidder. If the LG decides to reject all bids, the LG must obtain TxDOT's concurrence for this action. TxDOT's concurrence of an award must be formally documented in writing and include any qualifying statements concerning the concurrence. The [LGPP Manual](#) provides more details related to the policy and laws associated with the concurrence by TxDOT in the award.

8.3.2.2 Post-bid

After the bids are opened and the apparent low bidder identified, the district will be advised of the cost of the bid items. The district engineer will be asked to verify the bid prices are acceptable to the LG. If the district engineer indicates the bid amounts are not acceptable to the LG, the contract will not be awarded.

The LG must evaluate the bids as described above and make a recommendation to TxDOT for award of the bid to the selected bidder. The LG also has the option to reject all bids or to cancel the project.

8.3.2.3 Add Alternates

Many architectural projects use the concept of “add or deductive alternates.” This concept allows the owner to maximize the available funding. While the concept is not normally associated with federal-aid highway projects, it may be used if the alternates are listed in the proposal in priority order, with an explanation to all bidders of how the alternates will be used to determine the low bidder and contract award.

8.3.2.4 Required Practices

- For all projects with federal or state funds, or all projects on the state highway system regardless of funding source, the LG must have TxDOT concurrence in award before awarding a contract. If an issue occurs at letting, the LG should be informed the issue jeopardizes reimbursement and, therefore, the LG should remedy the issue.

- For all projects with federal and state funds, the LG must develop specific criteria for determining a “responsible/responsive bidder.” The language must address statutory options, such as “best bid,” “best value” and “safety record.” TxDOT approval of the criteria is required, and the criteria must be included in bid documents. In addition, the LG must have a procedure satisfactory to TxDOT to determine and evaluate “materially and mathematically unbalanced bids.”
- For projects using a pre-qualification process, the provisions of [Texas Local Government Code §271.027](#) allowing a bidder to demonstrate responsibility after bid opening does not apply since bidder “responsibility” is determined prior to receipt of bids.

8.3.2.5 LG Responsibilities

- For all projects, the LG must:
 - establish low-bid criteria if add alternates are used;
 - evaluate the bids;
 - determine the lowest responsible/responsive bidder;
 - obtain TxDOT concurrence on the determination of whether or not a bid is unbalanced;
 - review the DBE participation plan (or HUB/SBE, as appropriate) to ensure contract goals will be satisfied in accordance with provisions in the bid document;
 - ensure the DBEs submitted by the contractor as intended to perform work on the project are certified under the Texas Unified Certification Program;
 - submit a recommendation for the award of the contract to the selected bidder or make a recommendation to reject all of the bids or to cancel the contract;
 - if a bidder is recommended, request concurrence in the award from TxDOT; and
 - proceed with the contract execution after notification of TxDOT concurrence.
- For design-build projects, the LG must submit the procurement procedures to TxDOT for approval.
- For design-build projects, the LG should evaluate offers for compliance with its rules.

8.3.2.6 TxDOT District Responsibilities

- General

- For projects with state or federal funds, the district must review the LG’s process for bid analysis and contract award for compliance with the applicable statutes and policy statements. The district should submit questions and non-compliance issues to CST for final determination.
 - The district must review the bids to determine whether funds received adequately cover TxDOT oversight costs and request additional funds if needed.
 - The district must concur in writing with the LG’s review of the DBE participation plan prior to submitting a recommendation to award.
 - For projects with state or federal funds and for projects on the state system, the LG must request TxDOT concurrence in award prior to awarding a contract. The district must review the LG’s request and forward to CST for formal TxDOT concurrence.
- Design-bid-build
 - The district must assure the LG definitions for “responsible/responsive bidder,” “best value,” “best bid” and “safety record” are acceptable and are included in the bid proposal. In addition, the district must review the LG’s process for determining “materially and mathematically unbalanced bids” and assure it is acceptable. The district must verify the appropriate language is in the bid proposal. The district should submit questions and non-compliance issues to CST for final determination.
 - The district must seek concurrence in the award or rejection of the contract from CST. Submit the following information to CST,
 - A memo from the district recommending award or rejection of the contract. Include the letting date, name of the low bidder and award amount. Provide a brief description of who is responsible (LG or TxDOT) for costs over the federal and state funding as per the AFA. Note if there were nonresponsive bids, along with the corresponding reasons for rejection. If the project has multiple CSJs, provide a breakdown of the award amount for each CSJ.
 - LG letter to TxDOT recommending award or rejection (the consultant letter may be included but cannot be used instead of the LG letter to TxDOT).
 - Final engineer’s estimate breakdown generated prior to letting.
 - A bid tabulation (PDF or Excel file) that includes the items of work, the engineer’s estimate for each item and each bidder’s submitted price per item of work.
 - A bid analysis (can be performed by the LG or consultant).
 - TxDOT’s State Letter of Authority (SLOA).
 - Federal Project Authorization and Agreement (FPAA) for each CSJ (if federally funded).

- LG Project Development & Delivery Checklist filled out and certified by the district for the PS&E phase and Letting and Award phase.
- Certification statements for Right of Way, Utilities, and Railroad or the “Engineer’s Estimate of Probable Construction Phase Cost” form completed and signed by a district representative.
- The district must notify the LG of the TxDOT administration’s concurrence or rejection.
- Design-build
 - The district must assure the LG’s proposal evaluation factors comply with the applicable state and policy statements.
 - The district must notify the LG of the TxDOT administration’s concurrence or rejection.

8.3.3 Review of Financial Obligation

After concurrence of the award, TxDOT will compare the bid amount to the authorized financial obligation to determine whether a request for an adjustment of the obligation is appropriate. TxDOT will submit such requests to FHWA for all federal-aid projects.

9 Construction

9.1 Introduction

Each year the Texas Department of Transportation (TxDOT) awards billions of dollars of construction and maintenance contracts for projects ranging from new roads and bridge improvements sidewalks and hike/bike trails. Many of these projects are completed in partnership with local governments (LGs). The Construction phase of the LG/TxDOT project follows the [Preliminary Engineering and Design, Plans Specifications & Estimate \(PS&E\) Development](#) and [Letting and Award](#) phases. The Construction phase involves both the administration of the [Advance Funding Agreement](#) (AFA) between the LG and TxDOT, as well as the implementation of the executed contract between the construction contractor and the LG.

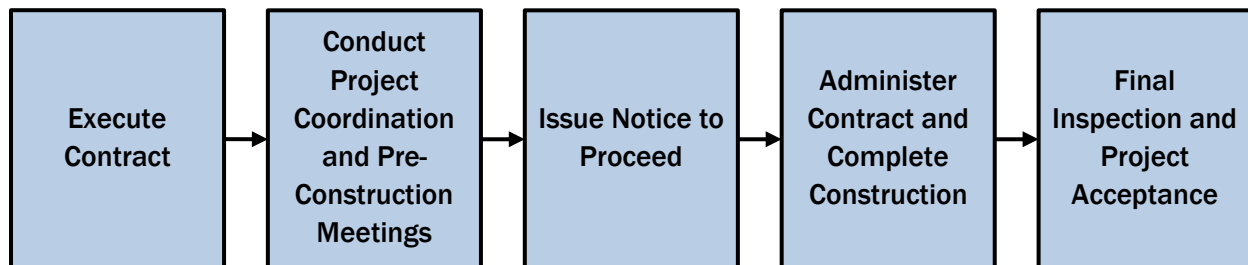
As described in [Chapter 7 - Plans, Specifications & Estimates \(PS&E\) Development](#), the PS&E and other bid documents are submitted by the LG and reviewed and approved by TxDOT [the Federal Highway Administration (FHWA) may also review the PS&E and bid documents on certain LG projects of FHWA district interest]. A state letter of authority (SLOA) and federal project authorization and agreement (FPAA), if required, are issued, allowing for the advertising of the construction phase of the project. [Chapter 8 - Letting and Award](#) describes the letting process for local projects and the subsequent concurrence in the award by TxDOT. Once the LG has received concurrence, the construction is authorized to begin, and the LG may award the contract to the selected bidder and execute the contract. The following sections describe the Construction phase of the project and the regulations required for proper administration of the contract during construction.

As part of the LG program, the LG should have an established system to maintain and organize the project records (see [Chapter 2 - Project Initiation](#)). Early organization of the project documents and files by the LG will ensure an audit by TxDOT or FHWA during or at the close of the project will proceed smoothly. Proper record keeping also aids in the administration of the project during construction by documenting compliance with local, state and federal procedures and policies. This chapter of the Local Government Project Management Guide (LGPM Guide) provides information related to the administration of the project during construction, including procedures for initiating the construction project and required practices that must be followed throughout the construction project. The following general tasks are typically completed during the construction phase:

- execute contract;
- project coordination meeting (LG and TxDOT);
- pre-construction meeting (LG, TxDOT and contractor);
- issue the notice to proceed;
- review environmental compliance issues;
- begin construction;
- complete materials testing as required;

- monitor disadvantaged business enterprise (DBE), equal employment opportunity (EEO) and other compliance/reporting issues associated with contract administration/project management;
- provide progress reports;
- conduct regular site visits;
- provide project documentation;
- complete final inspection; and
- accept project and record letter and as-builts.

The following flowchart shows the tasks associated with progression of the project through construction. All of the tasks are described in more detail in the [Contract Administration](#) and [Application of Contract Elements](#) sections of this chapter. A workflow of the Construction phase is presented in more detail in the [LG Project Process Development Flowchart](#).



9.2 Contract Administration

9.2.1 Overview

The goal of contract administration is to ensure the requirements as outlined in the contract documents are performed accurately and completely, and the responsibilities of all parties are properly satisfied. The primary objectives of contract administration are:

- to verify performance for the purpose of payment;
- to identify any potential “material breach of contract” by assessing the difference between contract performance and material non-performance;
- to determine if corrective action is necessary; and
- to take such action, if required.

The Construction phase of a project is initiated after TxDOT concurs in the award of the contract to the selected bidder. The LG may then award and execute the contract. Although the LG is responsible for the tasks that start the construction project, the TxDOT district actively participates in the initiation of the construction phase and maintains oversight responsibility during construction to ensure these projects are managed, developed and constructed in accordance with approved policies, procedures, plans and specifications. The LG’s and TxDOT’s responsible persons in charge (RPICs) and project managers, and the LG’s qualified person will be responsible for coordinating closely throughout the project.

Beginning construction with the appropriate activities, such as the project coordination meeting, the notice to proceed and the pre-construction meeting, are essential to proper construction management and contract administration. During construction of the project, the LG must administer the contract and ensure the contractor and subcontractors abide by the requirements and clauses contained in the contract documents. A discussion of most of the federal and state contracting requirements and the role of the LG in conforming to those requirements is contained in [Chapter 7 - Plans Specifications and Estimate \(PS&E\) Development](#) and [Chapter 8 - Letting and Award](#) of this Guide. This section describes key requirements for the administration of the contract by the LG during construction and refers the LG to the appropriate sections in previous chapters for more information on specific compliance and on documentation requirements. The federal and state laws related to contract administration during construction are described in the companion [Local Government Projects Policy Manual \(LGPP Manual\)](#).

9.2.2 Contract Execution

Upon receipt of the TxDOT concurrence in award, the LG may award the contract to the selected contractor. Upon receipt of all submittals required from the contractor, the LG and selected contractor will execute the contract and the LG will provide a copy to TxDOT.

9.2.3 Project Coordination Meeting

Soon after the contract is awarded and executed, a project coordination meeting is held with the LG project manager, the LG qualified person, the TxDOT project manager, and other LG and TxDOT project staff. The purpose of the meeting is to review the contract requirements and

responsibilities of the LG and TxDOT throughout the construction phase of the project. LG responsibilities associated with project accounting and documentation should be reviewed (see [Chapter 2 - Project Initiation](#)). This includes safety, reimbursement requests, DBE requirements, processing of change orders, other AFA contract requirements and other tasks. This meeting is held prior to the pre-construction meeting with the contractor so the LG and TxDOT staffs understand each party's roles and responsibilities for the construction phase of the project.

9.2.4 Pre-construction Meeting

9.2.4.1 General

The LG must conduct a pre-construction meeting with all parties (including TxDOT) before construction can begin.

9.2.4.2 Required Practices

- The LG plans and conducts the pre-construction meeting, which should involve the LG key personnel, the contractor (and subcontractors, as required) and TxDOT. The meeting must be held prior to the commencement of work.
- The LG may choose to use TxDOT publications for planning assistance, including the sample pre-construction meeting agenda and the pre-construction meeting guide and minutes, both of which are included in the [LGP Best Practices Workbook](#). The LG project manager should use the pre-construction meeting guide and minutes as a checklist to ensure all required items are discussed.
- For any questions arising at the meeting that are answered after the meeting, a copy of the answers shall be sent to each participant and a copy kept in the project records.
- The LG shall send a copy of the minutes to each participant and keep a copy in the project records.

9.2.4.3 LG Responsibilities

- The LG organizes and conducts the pre-construction meeting prior to the contractor beginning work on construction.
- The LG must invite representatives of the contractor, all subcontractors, LG consultants (construction, design and testing) and TxDOT. A sign-in sheet with contact information for all attendees should be created and retained.
- The LG keeps the minutes of the meeting and is responsible for ensuring all items are discussed and documented.
- The LG must ensure all questions arising during the meeting are answered. If answered after the meeting, the LG must send a copy of the answers to each participant and keep a copy in the project records.

- The LG must send a copy of the minutes and sign-in sheet to each participant and keep a copy in the project records.

9.2.4.4 TxDOT District Responsibilities

- It is strongly recommended that the TxDOT district sends at least one representative (preferably the project manager) to the meeting.
- The TxDOT district representative should observe the meeting, participate when appropriate and ensure all required items on the agenda are discussed during the meeting.

9.2.5 Notice to Proceed

9.2.5.1 General

The construction phase starts with the issuance of a notice to proceed (NTP) or authorization to begin work by the LG. The NTP is usually in the form of a letter and is issued by the LG to the selected contractor.

9.2.5.2 Required Practices

- Prior to issuing the NTP, the LG must obtain concurrence from the TxDOT project manager that all contract execution requirements have been met.
- The NTP is issued to the contractor and includes the start of contract time and the method of time charges (calendar day or work day).
- The LG must send a copy of the NTP to the TxDOT project manager and keep a copy in the project records.

9.2.5.3 LG Responsibilities

- The LG must obtain concurrence to execute the construction contract from the TxDOT project manager.
- The LG issues the NTP to the approved contractor.
- The LG sends a copy of the NTP to the TxDOT project manager and keeps a copy.

9.2.5.4 TxDOT District Responsibilities

- The TxDOT project manager must ensure all contract execution requirements have been met and issues a concurrence to the NTP.
- The TxDOT district must keep a copy of the NTP in the project records.

9.2.6 Environmental Concerns

9.2.6.1 General

All projects will comply with TxDOT policy to protect, preserve and, when practicable, enhance the environment. For construction projects, environmental concerns should be identified early in the project during the Preliminary Engineering and Design phase so any mitigation may be addressed and accurately reflected in the design documents using TxDOT's [environmental permits, issues and commitments \(EPICs\) form](#). EPICs are any permits, issues, coordination commitments or mitigation obligations necessary to address, offset or compensate for social, economic or environmental impacts of a project. These may include sole source aquifer coordination, wetland permits, stormwater permits, traffic noise abatement, threatened or endangered species coordination, archeological permits, or any mitigation or other environmental commitments associated with the project. EPICs must be specified in the construction documents and will be monitored for compliance during the project and for a defined period of time after construction completion. Chapter 5 - Environmental Compliance of the [LGPP Manual](#) and this [Guide](#) provide the associated federal and state regulations, required practices, and LG and TxDOT responsibilities.

9.2.6.2 Required Practices

- Ensure environmental requirements in EPIC are met.
- Ensure Construction Site Notice is posted, if required
- Comply with Construction General Permit.
- Conduct storm water pollution prevention plan (SW3P) inspections as required in the plans set.
- Evaluate change orders for environmental impacts prior to approval.

9.2.6.3 LG Responsibilities

- The LG must monitor the project for environmental commitments as noted in the EPIC sheets.
- The LG must perform site inspections of implemented SW3P controls.
- The LG must maintain and revise SW3P devices as warranted in the field and per the plans.

9.2.6.4 TxDOT District Responsibilities

- The district must perform spot checks of permits, site notices and inspection records. Site visits should include reviews of implemented SW3P controls.

9.2.7 Inspection

9.2.7.1 General

All projects involving state or federal funds must be completed in accordance with the approved plans, specifications and authorized changes. To assure the project is being

constructed accordingly, both the LG and TxDOT have certain inspection responsibilities on construction projects. Some federally funded projects have direct FHWA involvement, meaning that FHWA is part of all approval actions. For the majority of federal-aid projects, TxDOT assumes FHWA's approval authority.

One approval action required on all projects is accepting the completed work. When accepted, TxDOT certifies the completed project meets all approval criteria. Complete confidence that a project meets all approved criteria can be accomplished only by an appropriate level of on-site inspection and project management during all phases of the project. By executing an AFA with TxDOT, the LG assures it is adequately staffed and suitably equipped to manage all project functions. TxDOT verifies the LG's actions by conducting periodic inspections; however, it is the LG's day-to-day responsibility to determine compliance with the approved plans, specifications and contract administration requirements, and to develop and keep adequate project documentation.

Compliance with the plans, specifications and contract administration requirements includes:

- *Quality of the Construction:* The LG must assure the contractor meets all material and construction requirements, known as the "quality of the construction." If the LG is not adequately staffed to assure the quality of the construction, it can retain the services of an engineering or architectural firm. If this option is chosen, the firm's services must be secured in compliance with the procedures described in [Chapter 4 - Preliminary Engineering and Design](#) of this Guide.
- *Contract Administration:* The LG must assure the elements of the bid documents relating to state and federal contracting requirements are implemented fully – a function known as "contract administration." For example, a specification implementing Davis-Bacon wages and the associated monitoring and reporting requirements has as much validity as a specification on concrete quality. To assure full contract compliance and federal participation, the LG is responsible for day-to-day inspection. When the LG executes an AFA with TxDOT, the LG is providing assurance that it is staffed to manage the project and is capable of managing all requirements, including contract administration responsibilities.

The [LGPP Manual](#) lists the federal and state requirements related to inspections for the construction phase of the project.

9.2.7.2 Required Practices

- For all federally and state funded projects, or all projects on the state highway system regardless of funding source, the LG must:
 - ensure projects will be constructed in conformance with the approved plans and specifications;

- name a full-time employee in responsible charge of the project and advise TxDOT of any changes in personnel;
 - make inspection staff accessible for periodic reviews and inspections by TxDOT; and
 - provide a certification sealed by an engineer licensed in Texas who specified the material quality and construction standards were met.
- For projects off the state system with no federal or state funding, the LG must assure the project is constructed under supervision of a professional engineer licensed in Texas.

9.2.7.3 LG Responsibilities

- The LG must confirm that a full-time employee of the agency is named in responsible charge of the project during construction.
- The LG must provide adequate project supervision and inspection of the project during construction.
- The LG must assure the supervision of the inspection staff by a licensed professional engineer.
- The LG must procure consultant services, if needed, per the procedures described in [Chapter 4](#) of this Guide.

9.2.7.4 TxDOT District Responsibilities

- The district must verify the LG’s “responsible person in charge” of the project. The district will also confirm its “responsible person in charge,” who should develop a relationship with the LG’s “responsible person” with the goal of establishing trust and confidence that the project is properly completed.
- For projects with state or federal funds, or all projects on the state system regardless of funding, the district must conduct periodic inspections in accordance with the oversight level established at the project’s initiation during the life of the project. The district must monitor the level of inspection and discuss inspection concerns with the LG in view of its responsibilities as outlined in the AFA. If there are unresolved concerns, the district should request assistance from the Construction Division (CST) or the Local Government Project (LGP) Section.
- For projects with state or federal funds, the district must review and approve all proposed agreements between the LG and private inspection firms to ensure compliance with the provisions of [Texas Administrative Code, Title 43](#). Submit questions and non-compliance issues through CST for final determination.

9.2.8 Supervision and Staffing

9.2.8.1 General

A LG must be suitably equipped and staffed before it can be given authority to manage federal-aid highway projects within its jurisdiction. The [LGPP Manual](#) describes the federal and state laws and requirements for the LG to manage projects on the state and federal highway system or for projects involving state or federal funds. In general, the LG must be adequately staffed and suitable equipped to undertake and satisfactorily complete the work, and the LG must provide a RPIC as defined in Chapter 2 of the [LGPP Manual](#) and this [Guide](#). If the LG uses the services of a consulting engineering or construction management firm, the services must be procured in compliance with the procedures described in [Chapter 4](#) of this Guide.

The [LGPP Manual](#) provides the state and federal requirements relating to supervision and staffing by the LG on a construction project.

9.2.8.2 Required Practices

The AFA or contract will include assignment of duties and responsibilities. This will include designation of the LG's RPIC in writing. Prior to executing the agreement, the LG must assure to TxDOT the projects will be staffed to TxDOT's satisfaction. Changes to that assurance or to the project RPIC or project manager must be approved by TxDOT prior to implementation.

9.2.8.3 LG Responsibilities

- The LG must assure to TxDOT the project will be staffed to TxDOT's satisfaction.
- The LG must advise TxDOT of any changes in staffing during construction.
- The LG must assure compliance with the RPIC duties as described in Chapter 2 of the [LGPP Manual](#).
- The LG must comply with the terms of the AFA.

9.2.8.4 TxDOT District Responsibilities

- The district must become familiar with the terms of the AFA in the area of RPIC and staffing commitments.
- The district must assure compliance with the RPIC duties.
- The district must conduct periodic inspections of the project in accordance with the oversight level established at the project's initiation to ensure the LG complies with terms of the AFA.
- The district should submit questions and noncompliance issues to CST for final determination.

9.2.9 Specification Compliance

9.2.9.1 General

As detailed in the earlier subheading “[Inspection](#),” the LG, with oversight by TxDOT, must follow the PS&E during construction. Compliance with the specifications contained in the bid documents is required, and any changes to the bid documents must be approved by TxDOT before federal and state funds can be released. It is the LG’s responsibility to ensure compliance with the plans, specifications and authorized changes through inspections and other contract administration actions. The [LGPP Manual](#) contains the federal statute relating to this requirement.

9.2.9.2 Required Practices

- On projects where TxDOT participates with state or federal funds, or all projects on the state highway system regardless of funding source, the LG must:
 - secure written TxDOT approval of any changes to the specifications before being incorporated into the project;
 - afford TxDOT reasonable access to the project for inspection; and
 - provide a written certification (signed by a licensed professional engineer) that the completed project substantially complies with the plans and specifications as approved by TxDOT (the certification must be signed by a representative of the LG with the authority to sign the certification).
- The AFA will establish that the project must meet specifications and will discuss required compliance with specifications.

9.2.9.3 LG Responsibilities

- The LG must follow the provisions of the AFA.
- The LG must gain TxDOT approval of specification changes.
- The LG must accommodate TxDOT inspections during construction.
- The LG must provide an engineering certification of compliance to TxDOT.

9.2.9.4 TxDOT District Responsibilities

- For projects with state or federal funds, or all projects on the state highway system regardless of funding source, the district must:
 - conduct periodic inspections during construction in accordance with the oversight level established at the project’s initiation;

- review and approve all change requests; and
- retain LG’s written engineering certification of compliance with the plans and specifications as part of the official project records.

9.2.10 Quality Assurance Program

9.2.10.1 General

For all LG projects, independently of the contractor, the LG shall provide inspection services and construction materials testing as part of the LG’s quality assurance program (QAP). The LG construction materials testing shall be used for materials acceptance, or the verification of the contractor’s test results shall be used for acceptance, if applicable, and shall be used to assure the materials incorporated into the project substantially meet project plans and specifications. The LG may develop its own QAP or adopt the appropriate TxDOT QAP pertinent to the type of project delivery method used:

- [quality assurance program](#) for design-bid-build projects; or
- [quality assurance program](#) for design-build projects.

If the LG develops its own QAP, it will need to submit the QAP to TxDOT for review and approval. This QAP must include an acceptance program and an independent assurance program consisting of the following components.

- *Acceptance Program*
 - Schedules to guide the frequency of sampling and testing to verify the contractor’s test results
 - Identification of the verification sampling and testing locations
 - Identification of the desired quality attributes of the finished product
 - A dispute resolution system (to be implemented when the contractor sampling and testing results are used as part of the acceptance decision)
- *Independent Assurance Program*
 - Schedule showing the frequency for the independent assurance evaluation of testing personnel and equipment
 - Procedures for evaluation of testing personnel
 - Procedures for evaluation of testing equipment

Any program developed by the LG must receive approval from TxDOT prior to use. The [LGPP Manual](#) contains the federal and state requirements for an acceptable QAP.

9.2.10.2 Required Practices

- For all projects with state or federal funds, or all projects on the national or state highway systems regardless of funding source, the LG must either adopt the TxDOT QAP or submit an equivalent program to TxDOT for approval. The program must provide reasonable assurance that the materials incorporated into the project substantially meet specification requirements.
- For projects on the national highway system, [23 CFR 637.207\(a\)\(3\)](#) applies. A materials certification, conforming in substance to [Appendix A of 23 CFR 637B](#), shall be submitted to the FHWA division administrator (TxDOT) for each construction project subject to FHWA construction oversight activities.
- For all projects with state or federal funds, or all projects on the national or state highway systems regardless of funding source, the LG must submit a letter of certification sealed by a licensed engineer that all materials incorporated into the project are in reasonably close conformity with the approved plans and specifications and approved change orders.

9.2.10.3 LG Responsibilities

- The LG must adopt the appropriate TxDOT QAP for the project delivery method used or submit a program through TxDOT to FHWA meeting the requirements defined above.
- For design-bid-build and design-build projects where the developer (contractor) is responsible for quality assurance (QA) tests, the LG is to employ an independent lab to verify the developer's (contractor's) QA tests in accordance with [FHWA Technical Advisory 6120.3](#). TxDOT has an electronic data and materials management system that supports meeting the requirements of Technical Advisory 6120.3 and may be licensed from TxDOT.
- The LG must assure compliance with the approved QAP.
- The LG must submit to TxDOT a letter of certification sealed by a licensed engineer that all materials incorporated into the project are in conformity with the approved plans and specifications when construction is complete.

9.2.10.4 TxDOT District Responsibilities

- For design-bid-build projects with state or federal funds, or projects on the state highway system regardless of funding source, the district must:
 - submit the LG's QAP to the Materials and Tests Division (MTD) for approval;
 - spot check compliance with the approved program during periodic inspections;

- receive the LG’s letter certifying materials conformity and retain the letter with the official project records (the district should not recommend final acceptance and payment until the certification is received); and
- prepare and send the letter of certification to FHWA for projects subject to FHWA construction oversight.

9.2.11 Records

Project records provide documentation and support for the payments for contract work during construction. [Chapter 2 - Project Initiation](#) contains a detailed description of the types of documentation that must be kept for any transportation project and lists the federal and state requirements governing records retention. The LG must retain records as specified in the AFA. The TxDOT district must also retain records as specified in the AFA and must ensure the LG is maintaining the appropriate records to aid both TxDOT and FHWA during project audits.

Project records unique for construction projects fall into many categories, such as documentation of pay quantities, test reports supporting that the materials used meet specification requirements and a variety of contract administration documentation. For example, the [quality assurance supplement to 23 CFR, Part 637, Subpart B](#) defines verification/check samples and tests as those performed by state (LG) personnel to verify the results of certified tests or the manufacturers’ certifications or specification compliance for manufactured materials. The statute requires documentation to demonstrate specification compliance.

9.2.12 Subcontracting

9.2.12.1 General

Federal regulations impose limitations on the amount of work that can be subcontracted. This provision prohibits a prime contractor from “brokering” (subletting all contract work). Subcontracting limitations are included in TxDOT’s [LG Standard Specifications](#) and [Form FHWA-1273](#).

The LG must adopt TxDOT’s LG Standard Specifications Item 8L, Form FHWA-1273 and other policies as applicable, must approve all subcontracts in writing and must coordinate with the TxDOT district. Subcontractors are not allowed to participate in projects if they are suspended or debarred. The contractor is required to certify as to its current eligibility status. Details regarding specific subcontracting and debarment certification that must be followed and properly documented are found in Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of this [Guide](#) and the corresponding [LGPP Manual](#).

9.2.12.2 Required Practices

- For all projects with federal funds, the LG must adopt the [TxDOT’s LG Standard Specification Item 8L](#), including 30% limitation, [Form FHWA-1273](#), prompt pay and other policies.

9.2.12.3 LG Responsibilities

- The LG must approve subcontracts in writing and retain signed copies for the project files.
- The LG must assure the subcontractor is not debarred.
- The LG must monitor the 30% or 25% prime contractor self-performance requirement.

9.2.12.4 TxDOT District Responsibilities

- For projects with state or federal funds, the district must spot check the LG's subcontract approvals for compliance with subcontracting limitation, [Contractor's Assurance](#) and debarment status (submit questions and non-compliance issues to CST for final determination).

9.2.13 Statements and Payrolls**9.2.13.1 General**

The LG is responsible for receiving and paying statements from the contractor during construction, and for ensuring workers are being paid fairly by both the contractor and subcontractors.

[Form FHWA-1273](#) includes the following sections related to payrolls.

- *Section IV.3:* The regulations require the contractor and subcontractors to furnish weekly certified payroll statements to the LG. The weekly payroll statement is to include information on employees and wages so that compliance with the Davis-Bacon requirement of Section IV may be verified. More information on minimum wage regulations and the Davis-Bacon Act is included in [Chapter 7](#).
- *Section IV.5:* The U.S. Department of Labor regulations implementing the [Copeland Act](#) are incorporated by reference in the [Form FHWA-1273](#). Under the Copeland Act, workers are protected from paying “kickbacks” to employers for the “privilege” of being employed.

The LG must review the payroll statements for completeness and certification and then “spot check” items, such as classification, hourly rate, authorized deduction, fringe benefits, overtime hours and rate, and net wages paid. The LG must also conduct employee interviews that are cross-referenced to classifications and hourly rates in the payroll. While minor discrepancies may be resolved with the contractor, the LG should refer any apparent violations to the U.S. Department of Labor.

For purposes of this Guide, the LG is considered the “contracting agency.” The LG is required to ensure:

- a representative sampling of employees is interviewed to verify contractor compliance;
- and

- contractor and subcontractor payroll records are reviewed on a sampling basis.

The regulation does not require 100% coverage; it requires coverage frequency “... as may be necessary to assure compliance.” All contractors and subcontractors on the project must be included in the spot check. Contractors or subcontractors with violations must be reviewed in more detail. The [LGPP Manual](#) lists the federal and state requirements for compliance with wage rate rules and regulations.

9.2.13.2 Required Practices

- For all projects with state or federal funds, the LG must adopt TxDOT’s procedures for monitoring wage rate compliance or submit an alternate program for TxDOT approval.

9.2.13.3 LG Responsibilities

- The LG must include [Form FHWA-1273](#) in the contract.
- The LG must adopt the TxDOT wage rate compliance monitoring program or submit an alternate program for TxDOT approval.
- The LG must monitor compliance according to the approved program.

9.2.13.4 TxDOT District Responsibilities

- For projects with federal or state funds, the district must:
 - review at least one payroll per project to ensure compliance; and
 - submit questions and non-compliance issues to CST for final determination.

9.2.14 Progress Payments

9.2.14.1 General

Progress payments are compensation paid to the prime contractor for the value of work performed during a covered period. Payments should be based on the value of the work performed (supported by field measurements) and materials delivered or stockpiled in accordance with the contract. Payment for each bid item should be made in compliance with its approved specification.

As a highway construction project progresses, the LG may request FHWA (in most cases represented by TxDOT) to reimburse the LG for the federal share of the estimated costs for completed work. The LG is allowed to submit reimbursement requests, with attached status reports and schedules, no more frequently than once per month. The LG is to submit reimbursement requests each month work is performed. For months where no reimbursement is required, the LG should submit a status update stating the reason. This will facilitate efficient TxDOT review of requests and verification of work performed. Consistent billing by the LG is required for federal-aid projects. A federal-aid project may be defined as an inactive project obligation by FHWA if no expenditures are made for a year (see the [Project](#)

[Accounting](#) section in Chapter 2 of this Guide). All requests for federal reimbursements of payments to the contractor by the LG must go through TxDOT.

9.2.14.2 Stockpiled Materials

When the contract provisions provide for stockpiled materials, federal participation is based on the appropriate value of approved specification materials delivered by the contractor to the project site or other designated location in the vicinity of such construction, provided that:

- stockpiled material is stored in such a manner that security and inventory can be maintained, and inventory is available for inspection;
- the material is supported by a paid invoice or receipt for delivery, with the contractor furnishing the paid invoice within 60 days after receiving payment from the LG;
- the material conforms with the requirements of the plans and specifications;
- the materials have not been delivered or stockpiled prematurely in advance of the contractor's schedule of operations; and
- the quantity of the material eligible for participation does not exceed the quantity required by the project, nor does the value exceed the appropriate portion of the contract item in which the material is to be incorporated.

9.2.14.3 Retention for Subcontract Work

Federal regulations require recipients to include a "prompt pay clause" in all federally funded contracts as follows.

- Require prime contractors to pay subcontractors for satisfactory performance of their contracts no later than 30 days from receipt of each payment by the prime. (NOTE: Texas code requires a contractor to pay a subcontractor not later than 10 days after receiving payment for a governmental entity.)
- Ensure prompt return of retainage payments within 30 days after the subcontractor's work is satisfactorily completed. (NOTE: Texas code requires a contractor to pay a subcontractor not later than 10 days after receiving payment for a governmental entity).

9.2.14.4 Final Payment

By statute, FHWA cannot make final payment for a project until TxDOT approves the completion of its construction. A final inspection of the project should determine whether the actual construction conforms to the approved plans and specifications, including all approved changes. TxDOT's final inspection may be an actual on-site inspection performed at or near project completion, an in-depth review of the LG's project records at or near project completion, or a finding based on a process review of the LG's internal project controls that demonstrates the LG is properly exercising its internal controls. Texas code stipulates the payment from the LG to the contractor is considered late on the 31st day after:

- the date the governmental entity receives the goods under the contract;
- the date the performance of the service under the contract is completed; or
- the date the governmental entity receives an invoice for the goods or services.

Late payments to the contractor will be subject to the appropriate interest as determined by the comptroller in accordance with [Texas Government Code §2251.025](#).

The [LGPP Manual](#) provides a discussion of the statutes and regulations related to each topic above and describes the federal and state requirements related to progress payments.

9.2.14.5 Required Practices

- For all projects with federal and state funds, the LG may not request reimbursement from TxDOT until payment has been transmitted to the LG's contractor in accordance with [Texas Government Code §2251.021](#).
- For projects with state or federal funds, a regional mobility authority and a regional tollway authority must adopt TxDOT's LG Standard Specifications [Item 9L](#) or develop comparable contract language for TxDOT approval regardless of system.
- For projects with no state or federal funds, the LG should pay the contractor in accordance with the terms of the contract and applicable sections of the Local Government Code.
- For all projects on the state system with no state or federal funds, the LG must notify TxDOT when all work is satisfactorily complete to give TxDOT the opportunity to conduct a final inspection.
- For all projects with federal or state funds, the LG and TxDOT are responsible for periodic visits to on- or off-site stockpiles to ensure compliance with the construction contract.
- For projects with federal funds, all LG requests for reimbursement must be submitted to TxDOT within 90 days of the project end date.
- All LG requests for reimbursement must be submitted to TxDOT within 2 years after the end of the fiscal year for which the expense was incurred for all non-construction contracts and 4 years if the appropriation relates to contracts for new construction.

9.2.14.6 LG Responsibilities

- The LG must adopt TxDOT's LG Standard Specifications [Item 9L](#) or submit alternate specification to TxDOT for approval.
- The LG must pay the contractor within 30 days.

- The LG must assure subcontractors receive payment from prime contractor within 10 days.
- The LG may request periodic reimbursement of completed work from TxDOT. Requests should be made regularly throughout construction as payments are made to the contractor (preferably monthly). All reimbursement requests must be submitted to TxDOT in a timely manner.
- The LG must ensure payment to the contractor is issued before requesting reimbursement from TxDOT.
- Invoices to TxDOT must include:
 - clear and concise descriptions of items billed; and
 - clear descriptions of services rendered and materials purchased.
- The LG must request a TxDOT final inspection when all the work is satisfactorily completed.
- For design-build projects, the LG must include the procedures for making progress payments on lump sum contracts in the request for proposals, if applicable.
- The LG should make periodic visits to inspect and document stockpiled material quantities either on- or off-site to ensure compliance with all rules and regulations.

9.2.14.7 TxDOT District Responsibilities

- The district must conduct site visits in accordance with the oversight level established during project initiation for the purpose of verifying items being billed exist, are legitimate and are within the scope of the contract. These visits should include an inspection of on- and off-site stockpiled materials and the LG documentation of materials. TxDOT should keep written documentation as part of the project review. One visit should occur during peak activity to ensure the LG has sufficient supporting documentation in the project file and to verify expenses have been incurred before requesting reimbursement from TxDOT.
- For projects with state or federal funds, the district must perform an appropriate level of review of the LG's reimbursement requests to ensure work billed has been performed, contractor payments occur within 30 days, reimbursement was not requested prior to transmittal of payment to the contractor and it is timely.
- For projects where reimbursement requests are not submitted to TxDOT until after construction completion (i.e., pass-through toll financing), the district must obtain copies of the LG's progress payments to the contractor for the project records.

9.2.15 Retainage

9.2.15.1 General

Retainage is a portion of the construction contract fee withheld until the LG is satisfied the work is substantially complete. [Texas Transportation Code §223.010](#) allows 5% of the contract price to be retained until the entire project has been completed and accepted. However, federal concerns over prompt pay ([49 CFR 26.29](#)) for subcontractors require the LG to follow strict guidelines for holding retainage if federal funds are used for the project. Details regarding specific retainage that must be followed and properly documented are found in Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of this [Guide](#) and the corresponding [LGPP Manual](#).

9.2.15.2 Required Practices

- The LG must implement retainage procedures as described in the bid documents.

9.2.15.3 LG Responsibilities

- If retainage is kept, the LG must make incremental final acceptance of subcontracted work.
- The LG must follow the retention schedule, including the timely release of the retainage.
- The LG must investigate complaints from subrecipients of failure to release retainage, and provide the findings to TxDOT.

9.2.15.4 TxDOT District Responsibilities

- The district must review the requests for reimbursement to determine that the approved retention schedule is being applied.
- For projects with state or federal funds, the district must have the LG investigate complaints from subrecipients of failure to release retainage. The district may submit questions and non-compliance issues to CST for final determination.

9.2.16 Contract Time

9.2.16.1 General

The term of the contract is an important part of every construction project. Too little contract time may result in higher construction costs, while too much contract time may encourage inefficiencies, increased user costs, and potential delays and inconvenience to the public. The LG is responsible for coordinating closely with the TxDOT district regarding the determination of contract time. Details regarding specific contract time that must be followed and properly documented are found in Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of this [Guide](#) and the corresponding [LGPP Manual](#).

Contract time must also be monitored during construction, ensuring the contractor completes the work within the terms of the contract.

9.2.16.2 Required Practices

- Work must be completed in the number of working days established in the contract documents.
- Time charges must be assessed in compliance with the specification method established in the contract documents.
- The contractor must designate in writing an individual who will develop and maintain the progress schedule, and must supply project progress schedules in accordance with TxDOT's LG Standard Specifications [Item 8L](#).

9.2.16.3 LG Responsibilities

- The LG must charge time on the contract in accordance with the specification method established in the contract documents.
- The LG must document daily time statement for all charged and/or credited days according to the specification provided in the contract documents and retain this information in the project records.
- The LG must document the approval of any periods of time suspensions in which days are not charged, and ensure time suspensions granted are in compliance with the specification provided in the contract documents.
- The LG must receive and provide comments on contractor submissions of project progress schedules in accordance with Item 8L of TxDOT's LG Standard Specifications.

9.2.16.4 TxDOT District Responsibilities

- The district must review that time charges have been appropriately assessed on the contract in accordance with the specification method. This item should be validated in coordination with requests for reimbursement prior to its approval for payment.

9.2.17 Time Extensions**9.2.17.1 General**

Contract time extensions granted by a LG that affect project costs or liquidated damages shall be subject to the concurrence of TxDOT and will be considered in determining the amount of federal participation.

Events normally considered to be under the control of the contractor and, therefore, do not warrant a time extension include:

- shutdowns for maintenance;
- breakdowns;

- suspensions or stop work orders for violation of safety or pollution regulations;
- shutdowns for construction accidents; and
- material delays.

[Section 7\(c\) of FHWA's Additional Guidance on 23 CFR 625A](#) provides further guidance on materials delays. The contractor is responsible for the timely order and delivery of materials for the project. A delay in delivery of materials does not in itself generally support an extension of contract time. However, if an unusual market condition (i.e., an industry-wide strike, natural disaster or area-wide shortage) occurs, a time extension may be in order.

Delays due to inclement weather should be expected and should generally not be the basis for a change in contract time. Weather should be factored into the original contract time determination.

Federal policy also covers granting time extensions due to utility, railroad and right-of-way clearance delays. Because of the assurances required from the LG prior to TxDOT project authorization, the policy generally does not permit participation in time extensions for such delays. Whenever the railroad or utility is permitted to adjust its facilities coincidentally with contract operations, such activities must be clearly addressed in the contract provisions. All parties should understand that any interference by the railroad or utility to the contractor's operations generally would not constitute an allowable delay. In general, an extension of contract time due to right-of-way delays is very unusual and is the exception rather than the rule.

The [LGPP Manual](#) provides the federal statute related to time extensions.

9.2.17.2 Required Practices

- For federally funded projects, the LG must have TxDOT approval of time extensions before granting the extension to the contractor.

9.2.17.3 LG Responsibilities

- The LG must obtain TxDOT concurrence for time extensions. Revised project schedules, showing how delays will affect the controlling item or change the critical path, should be included with the time extension request.

9.2.17.4 TxDOT District Responsibilities

- For projects with state and federal funds, the district must review and approve time extension requests from the LG.

9.2.18 Termination of Contract

Termination is an action taken by the contracting agency to cancel a contract. Federal-aid contracts exceeding \$10,000 must contain suitable provisions for termination by the LG. The provisions must identify the manner by which the termination will be effected and the basis for

settlement. There may be a number of grounds to warrant termination, including termination for cause, termination for convenience and termination for default. Prior to termination of a federal-aid contract for which TxDOT concurred in the award, the LG shall consult with and receive the concurrence of TxDOT. Details regarding specific termination of contract provisions that must be followed and properly documented are found in Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of this [Guide](#) and the corresponding [LGPP Manual](#).

9.2.19 Claims

9.2.19.1 General

A claim is a continued demand for payment by a contractor if it has been previously denied under the LG's normal procedures for change order approval. Both the LG and the contractor share in the responsibility for claims. The [LGPP Manual](#) lists the state and federal requirements relating to the processing of claims.

9.2.19.2 Required Practices

- Claims on projects with federal or state funds must be approved by TxDOT to assure TxDOT participation. Failure to coordinate with TxDOT before settling the claim will jeopardize TxDOT participation. TxDOT participation in claims will be governed by the type and extent of state or federal funding. There are several possible scenarios.
 - TxDOT participates in a fixed amount based on a percentage of the estimated contract cost and additional TxDOT funding is not sought.
 - If the contract price is less than estimated, TxDOT may approve claims for participation until its fixed amount is reached. The claim must be within the scope of the agreement with TxDOT. Subsequent claims do not require TxDOT approval since TxDOT participation limits have been reached.
 - If the contract price is equal to or greater than estimated, claims do not require TxDOT approval.
 - TxDOT participates in a percentage of the contract and there is an upper limit to TxDOT financial participation. TxDOT may approve claims for participation until the upper limit is reached. Subsequent claims do not require TxDOT approval since TxDOT participation limits have been reached.
 - TxDOT participates in a percentage of the contract, and there is no upper limit to TxDOT financial participation. TxDOT must approve all claims for participation.

9.2.19.3 LG Responsibilities

- The LG must keep TxDOT involved in the process of settling claims if it anticipates requesting state or federal participation in settlement costs.

- Any hearing associated with a contract claim must be conducted in accordance with [Texas Government Code Chapter 2001 Subchapter C](#) (see required practices and responsibilities outlined in sections [7.6.7.2](#) and [7.6.7.4](#) of this guide).

9.2.19.4 TxDOT District Responsibilities

- For projects with state or federal funds, the district must work with the LG following notification of a pending claim to assure the LG understands the requirements for maximum TxDOT participation.
- For projects with state or federal funds, the district must review the claim and transmit it with a recommendation for participation to LGP and CST.
- The district will monitor compliance with claim procedures.

9.3 Application of Contract Elements During Construction

9.3.1 Overview

The Construction phase of the project is guided by the elements included in the PS&E and the bid documents executed during letting. These elements are described in detail in Chapters [7](#) and [8](#). This section highlights critical contract elements applicable to the construction process and refers the LG back to the appropriate sections in previous chapters for more information.

9.3.2 Change Orders

9.3.2.1 General

A construction project is implemented using the design and specifications provided in the bid documents or scope of work contained in a request for proposals. However, circumstances may arise during construction that require changes to the scope of work contained in these documents. Known as “change orders,” these changes become legal documents and, therefore, must be proposed by the construction engineer and approved by the contracting agency.

Change orders are common to most projects and involve work added to or deleted from the contracted scope of work that impacts either the contract amount or contract time. For a project involving an agreement between a LG and TxDOT, TxDOT must formally approve proposed major extra work or major changes in the contract plans and provisions before work begins. However, when emergency or unusual conditions justify, TxDOT may give advance verbal approval and confirm such approval with formal written approval as soon as practical. Non-major changes and non-major extra work also require formal approval. However, such approval may be given retroactively at TxDOT’s discretion. All change orders must be checked for environmental compliance prior to approval.

Early coordination between the LG and TxDOT district is essential in the review of change orders. There are five basic components TxDOT will consider during its review of change orders.

- *Impact on the Original “Scope of the Work.”* Typically, if the proposed change falls within the previously authorized scope of work, then federal and state participation follows.
- *Eligibility.* FHWA is often asked to approve change orders to correct work because of a design or construction engineering error. Federal-aid participation in errors that may reasonably be expected to occasionally occur (despite the exercise of normal diligence) may be justified, as long as the LG’s carelessness, negligence, incompetence or understaffing were not contributing factors.

- *Consultant Design Errors.* Federal policy regarding participation in consultant design errors is that the consultant should pay for the cost of the new design but is generally not held responsible for additional construction costs resulting from such errors, as long as the errors are not a result of gross negligence or carelessness. If gross negligence or carelessness is determined, neither state nor federal funds can be used to pay for needed design or construction.
- *Basis of Payment.* The LG must perform and suitably document the cost analysis for each negotiated work change order. The method and degree of analysis are the LG's decision; however, the process should be acceptable to TxDOT. Force account procedures should only be used as a last resort when an agreement cannot be reached on the price of a new work item or when the extent of the work is unknown or of such character that a price cannot be determined to a reasonable degree of accuracy.
- *Time Extensions.* The change order should also provide the time needed to accomplish the work. Contract time extensions granted by a LG that affect project costs or liquidated damages shall be subject to the concurrence of TxDOT and will be considered in determining the amount of federal participation.

The [LGPP Manual](#) provides a description of the state and federal laws and requirements regulating change orders.

9.3.2.2 Required Practices

- For all projects on the state system, TxDOT must concur with all changes to the types of safety appurtenances, geometric design criteria, and structural design of pavements and structures (including drainage structures) before the LG gives the contractor authority to proceed with the change. This policy applies regardless of whether or not there are state funds in the project.
- Changes on all projects with state or federal funds must be concurred with by TxDOT. Failure to coordinate with TxDOT before issuing a change order may jeopardize TxDOT participation.
- For projects with state or federal funds, TxDOT follows [FHWA's policy guidance for participation](#). Participation in change orders is NOT permitted for additional costs for delays in purchasing right of way, adjusting utilities and other delays that are not the responsibility of the contractor. Participation is also not permitted for the cost to correct design errors.
- Design-build: Since design and construction are performed under the same contract, it is not anticipated that change orders for plan errors or omissions would be approved. However, TxDOT or the LG may direct changes to a design-build contract after work begins, in which case a change order may be appropriate.

9.3.2.3 LG Responsibilities

- TxDOT retains concurrence authority over all change orders and time extensions. This authority also determines federal participation limits.
- The LG must submit changes for TxDOT concurrence in accordance with “required practices” as discussed above.
- The LG must assure the total contract price does not increase by more than 25% or decrease by more than 25% (18% for counties) without the consent of the contractor.

9.3.2.4 TxDOT District Responsibilities

- For projects with state or federal funds, the district must concur with all change orders in accordance with the policy statements set forth in [Section 7.6.5.1](#) of this guide. The district may submit questions to LGP for interpretation.
- For all projects on the state highway system, the district must approve all changes to the types of safety appurtenances, geometric design criteria, and structural design of pavements and structures (including drainage structures) regardless of the source of funds.

9.3.3 Designated Material Sources/Disposal Sites

The contractor must furnish all materials to be incorporated into the work. However, the LG can either furnish materials or require the contractor to use designated sources of materials under certain conditions. FHWA requires the contractor to furnish all materials to be incorporated in the work and allows the contractor to select the sources from which the materials are to be obtained. Exceptions to this requirement may be made when there is a definite finding by the LG, with TxDOT’s concurrence, that it is in the public interest to require the contractor to use materials furnished by the LG or from sources designated by the LG. Similarly, the disposal site for surplus excavated materials is to be of the contractor’s choosing; although, an optional site(s) may be shown in the contract provisions. A mandatory site shall be specified when there is a finding by the LG, with the concurrence of TxDOT, that such placement is the most economical or the environment would be substantially enhanced without excessive cost. Discussion of the mandatory use of a disposal site in the environmental document may serve as the basis for the public interest finding.

The LG is responsible for coordinating closely with the TxDOT district regarding specifications for materials, the source of materials and the disposal of materials. Details regarding specific provisions related to the designation of material sources and disposal sites that must be followed and properly documented are found in [Chapter 7 – Plans, Specifications & Estimates \(PS&E\) Development](#) of this Guide.

9.3.4 Differing Site Conditions

Due to the nature of highway construction and the conditions under which work is performed, designers cannot always accurately determine and describe the conditions existing at project

sites. Consequently, actual conditions encountered during construction may differ from those indicated in the contract documents, resulting in a change in construction costs. Situations may also develop during construction requiring the contracting agency to order the contractor to slow down or stop construction through no fault of the contractor. These slowdowns or stoppages in the work may cause a change in construction costs.

There also may be situations encountered during construction requiring the contracting agency to make alterations to the design. In addition to changing the amount of contract work, such alterations could significantly affect the contractor's production costs. In accordance with federal regulations, differing site or changed condition clauses must be included verbatim in the contract.

The LG is responsible for including the appropriate differing site condition language in the bid document and for coordinating closely with the TxDOT district regarding changed conditions encountered during construction. Details regarding the differing site conditions clause that must be followed and properly documented are found in [Chapter 7 - Plans, Specifications & Estimates \(PS&E\) Development](#) of this Guide.

9.3.5 Disadvantaged Business Enterprise (DBE), Historically Underutilized Business (HUB) and Small Business Enterprise (SBE)

9.3.5.1 General

The federal and state programs for DBEs, HUBs and SBEs have been developed to encourage participation in the construction industry by a wide variety of contractors and, therefore, expand diversity in the industry. All federal-aid projects are subject to the DBE requirements, and DBE participation during construction must be documented and reported.

9.3.5.2 Required Practices

- The LG must implement the project goals approved by TxDOT and incorporated into project documents before advertising for receipt of bids. Contractors must select DBEs, HUBs and SBEs from TxDOT-approved or maintained sources. The LG will provide monthly updates of DBE/HUB/SBE (as appropriate) participation and report final accomplishments to TxDOT for credit to overall program goals.

9.3.5.3 LG Responsibilities

- The LG must:
 - ensure DBE subcontractors requested by the contractor to perform work on the project are certified under the [Texas Unified Certification Program](#);
 - monitor progress during construction to assure the goal is met or good faith efforts are made and report contractor/subcontractor progress payment information monthly throughout construction to TxDOT project personnel;

- conduct commercially useful function reviews and provide documentation to TxDOT, as requested; and
- report final contractor/subcontractor progress payment information to TxDOT project personnel within 30 days after making final payment to contractor.

9.3.5.4 TxDOT District Responsibilities

- Project personnel/DBE coordinator shall provide contractor/subcontractor progress payment information monthly to TxDOT's Civil Rights Division (CIV) in accordance with LGP- or CIV-defined procedures.
- Project personnel/DBE coordinator shall provide project final contractor/subcontractor payment information to CIV in accordance with LGP- or CIV-defined procedures.
- DBE (or HUB/SBE, as applicable) participation on all projects will be credited to the TxDOT overall program goal.
- For projects with state or federal funds, the LG has primary monitoring responsibility. The district is responsible to spot check compliance during periodic visits to the project. The district will submit questions and non-compliance issues to its appropriate district DBE coordinator for oversight and guidance. If necessary, the district DBE coordinator will contact CIV for further assistance and clarification.
- The district must spot check the contractor's progress and commercially useful function reviews during periodic inspections of projects with federal funds. Spot checks are not required on state funded projects.
- For projects without state or federal funds, the district must report the final LG project DBE/HUB/SBE accomplishments to CIV.

9.3.6 Equal Employment Opportunity

9.3.6.1 General

The LG is responsible for implementing EEO policies for itself and its contractors, and for coordinating closely with the TxDOT district during construction. The state and federal requirements supporting the EEO policies are described in Chapter 7 of the [LGPP Manual](#).

9.3.6.2 Required Practices

- The contractor has a fundamental role and responsibility to take all reasonable and necessary steps to ensure the equal opportunity terms and conditions of its contract are fully met. This includes, but is not limited to, its employment policies and practices, and its selection and retention of subcontractors, material suppliers and vendors. The contractor is responsible for having in place and implementing an equal employment opportunity program to ensure equal access of applicants and employees to employment, training and business opportunities to minorities and women.
- The contractor is required to fully cooperate with the LG, TxDOT and FHWA in meeting EEO requirements of the federally assisted contracts including providing ready access to all files and records, and submitting all required and requested reports to assist in determining compliance.
- All entities will ensure compliance with applicable provisions of the [Civil Rights Act](#). For guidance in compliance matters, CIV may be contacted.

9.3.6.3 LG Responsibilities

- In accordance with [23 CFR Part 230](#) and [Form FHWA-1273](#), the LG must ensure all federal-aid construction contractors and subcontractors with contracts of \$10,000 or greater do not discriminate and will take affirmative action to assure equal employment opportunity for all persons attendant to the contract. To assure nondiscrimination, the LG must do the following.
 - Ensure all contractors and subcontractors accept the following as their operating EEO policy verbatim:

“It is the policy of the Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color or national origin, age or disability. Such action shall include: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and on-the-job training.”
 - Ensure all contractors and subcontractors designate and identify an EEO officer.
 - Ensure all contractor and subcontractor personnel authorized to hire, supervise, promote and discharge employees are fully cognizant of, and will implement, the EEO policy.

- Ensure all contractors and subcontractors, when recruiting for employees, include in all advertisements for employees the notation, “An Equal Opportunity Employer.” Contractors and subcontractors must also implement additional recruitment efforts, such as utilizing public and private employee-referral services and employee referrals.
- The LG must ensure the contractor displays the following federal posters and notices on project-site bulletin boards.
 - [“Know Your Rights,” required by 41 CFR 60-1.4\(b\)\(1\)](#)
 - [EEOC-P/E-S \(Spanish Version\)](#) or call 1-800-669-3362
 - [Contractor’s EEO policy statement required by Form FHWA-1273-EEO](#) (includes officer name and phone number)
- The LG must ensure all contractors and subcontractors annually submit [Form FHWA-1391](#) reflecting the racial and gender utilization of their workforce on their federal-aid highway construction projects. The report is a summary of laborers on their last payroll period before the end of July. The form is submitted each August for projects under construction during the month of July. The LG keeps copies of the forms in its respective project file. The LG forwards the reports to the appropriate TxDOT district office.
- The LG must ensure the contractor keeps such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of CIV and FHWA.
- The LG must provide support and assistance to CIV staff during EEO contract compliance reviews and preparation of the [Federal-aid Highway Construction Contractors Annual EEO Report](#).
- The LG shall work in coordination with CIV and district EEO external coordinators in the administration of the [Federal-aid Highway Construction Contractors Annual EEO Report](#). For all active local-let federal-aid projects, the LG shall maintain a database of all approved prime contractors and subcontractors including the name of the company, mailing address and contact information. Such information shall be made available to the TxDOT district upon request. Upon receipt, the TxDOT district will forward the information to CIV. CIV will notify those contractors and subcontractors regarding the [Form FHWA-1391](#) reporting requirement.

9.3.6.4 TxDOT District Responsibilities

- The district must ensure LG project inspectors are periodically checking federal-aid project site bulletin board requirements for the display of the above-referenced federally required EEO posters and notices.

9.3.7 Equipment Rental Rates

The LG is responsible for adopting TxDOT specifications for equipment rental rates or for obtaining TxDOT approval for its own rental rates. Details regarding specific required practices related to equipment rental rates that must be followed and properly documented are found in [Chapter 7 - Plans, Specifications & Estimates \(PS&E\) Development](#) of this Guide, while the federal and state regulations related to this topic are found in Chapters [7](#) and [9](#) of the LGPP Manual.

9.3.8 Temporary Traffic Control Devices

9.3.8.1 General

The LG must adopt TxDOT's [temporary traffic control program](#) or obtain TxDOT approval for an alternate program. The LG should coordinate the implementation of a temporary traffic control program closely with the TxDOT district office during construction. A general description of the regulations related to the use of temporary traffic control devices is provided in Chapter 9 – Construction of the [LGPP Manual](#), while a more-detailed description is included in Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of the [LGPP Manual](#).

9.3.8.2 Required Practices

- Inspections must be conducted to monitor compliance with approved traffic control plans, and to ensure the safety of the traveling public through the project in accordance with the Texas Manual on Uniform Traffic Control Devices.
- Contractor, subcontractor and law enforcement personnel must complete training as required by TxDOT's LG Standard Specifications [Item 7L](#).

9.3.8.3 LG Responsibilities

- The LG must conduct and document monthly inspections, one day-time and one night-time, using TxDOT's [Traffic Control Devices Inspection Checklist Form 599](#), or pre-approved equivalent document.
- The LG must keep inspection reports in a separate file labeled "DO NOT DISCLOSE – EXCEPTED FROM DISCLOSURE BY 23 USC §407."
- The LG must ensure contractor, subcontractor and law enforcement personnel have completed the required training in compliance with Special Provision 007-011L.

9.3.8.4 TxDOT District Responsibilities

- The district must perform spot checks of completed inspections and project records for compliance with required practices and contract provisions.

9.3.9 Form FHWA-1273

[Form FHWA-1273](#), Required Contract Provisions, is a collection of contract provisions and proposal notices required by federal regulations and must be made a part of, and physically incorporated into, all contracts, as well as all appropriate subcontracts. Details regarding specific requirements related to Form FHWA-1273 that must be followed and properly documented are found in Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of this [Guide](#) and the corresponding [LGPP Manual](#).

9.3.10 Liquidated Damages

9.3.10.1 General

Liquidated damages are required as a means of recovering, at a minimum, construction engineering costs from a contractor. Contract time is an essential element of the contract, and it is important the work be monitored closely to ensure completion within the time limits specified in the contract. The liquidated damages contract provision provides a mechanism for the contracting agency to recover the costs associated with the contract time overrun. TxDOT is required to have the LG incorporate liquidated damages provisions into its federal-aid contracts as a condition of the project agreement.

The LG is responsible for adopting a policy on liquidated damages and incentives/disincentives acceptable to TxDOT, and must coordinate closely with the TxDOT district office during construction. Details regarding specific requirements for liquidated damages that must be followed and properly documented are found in Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of this [Guide](#) and the [LGPP Manual](#).

9.3.10.2 Required Practices

- For all projects with federal or state funds, the LG must follow TxDOT policy on liquidated damages and incentive/disincentive. The LG must implement the liquidated damage rates and/or road use costs incorporated in the construction contract.

9.3.10.3 LG Responsibilities

- The LG must assess liquidated damages on each contractor progress payment in accordance with construction contract once time has been expended.

9.3.10.4 TxDOT District Responsibilities

- The district must assure the LG properly assesses liquidated damages on each progress payment once the contract time has been expended; this should be done in coordination with approval of requests for reimbursement.

9.3.11 Materials

9.3.11.1 General

Materials used in a LG construction project must be clearly defined in the PS&E. Plans and specifications need to clearly define the types, locations and construction requirements for materials in detail to facilitate the construction, contract control and estimation of construction costs of the project.

The LG is responsible for adopting TxDOT [standard specifications](#) for materials or for obtaining TxDOT approval on alternate specifications during the PS&E phase. State and federal requirements for materials specifications are contained in Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of the [LGPP Manual](#). Details regarding specific procedures related to materials specifications that must be followed and properly documented are found in Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of this [Guide](#). The LG should coordinate closely with the TxDOT district office during construction.

9.3.11.2 Required Practices

- For projects on the state highway system, materials should be from a TxDOT-approved source. For materials without an approved source, the LG shall submit the proposed material source to TxDOT for approval.
- Proposed changes to material requirements must have TxDOT approval before the LG implements the change.
- For projects with federal funds, intelligent transportation system (ITS) components must comply with the prohibition of use of services, systems, or services or systems that contain components produced by manufacturers named by [2 CFR 200.216](#) and [2 CFR 200.471](#).
- Projects with federal funds must comply with the Buy America provisions. LG Responsibilities
- The LG must request TxDOT approval of changes to the material specifications before implementation.
- The LG must obtain materials source verification documentation from the contractor for materials incorporated into the project.
- The LG must ensure ITS components are in compliance with 2 CFR 200.216 and 2 CFR 200.471 by obtaining sourcing documentation from the contractor.
- The LG must obtain materials documentation from the contractor to verify steel/iron materials incorporated into the project are in compliance with the Buy America contract provisions.

- At the project's completion, provide TxDOT a written certification that all materials incorporated into the project are in compliance with plans and specifications.

9.3.11.3 TxDOT District Responsibilities

- Review and provide a written response to requests for approval of changes to the material specifications;
- The district must spot check materials documentation in the project records of ITS components to verify compliance with the [2 CFR 200.216](#) and [2 CFR 200.471](#) prohibitions.
- The district must spot check materials documentation in the project records to verify compliance with the Buy America contract provisions.
- The district must ensure receipt of a materials certification letter from the LG at the project's completion.

9.3.12 Nondiscrimination Against Persons with Disabilities

9.3.12.1 General

Discrimination on the basis of disability by public entities is prohibited. The prohibition extends to all activities of the state and LGs participating in federally assisted programs. The LG must ensure accessibility for individuals with disabilities is provided in the construction of all new transportation facilities. When altering existing transportation facilities, the LG must also ensure the alterations are made in such a way as to provide access and utilization by individuals with disabilities. The LG should coordinate closely with the TxDOT district office during construction and request a final inspection from the Texas Department of Licensing and Regulation (TDLR) or a registered accessibility specialist (RAS) within one year of project completion. The state and federal requirements related to accessibility are included in the corresponding Chapter 7 of the [LGPP Manual](#).

9.3.12.2 Required Practices

- All projects must comply with the provisions incorporated into plans and specifications.

9.3.12.3 LG Responsibilities

- The LG is responsible for coordination with TDLR or a RAS for inspection of the completed project, and for paying all applicable fees.

9.3.12.4 TxDOT District Responsibilities

- The district must verify the LG has requested, and TDLR or a RAS has conducted its final inspection and approved the project. If TDLR or a RAS inspection noted any deficiencies, the district must obtain the LG's certification that the deficiencies were corrected before recommending TxDOT final acceptance of the project. If state or federal funds are used, final payment to the LG will not be made until TDLR has inspected the project and all issues noted have been corrected.

9.3.13 Non-segregated Facilities

The LG is responsible for ensuring the contractor and subcontractors obtain the appropriate certifications in order to ensure the parties maintain non-segregated facilities. Details regarding the specific practices for ensuring non-segregated facilities during construction that must be followed and properly documented are found in Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of this [Guide](#). Chapter 7 of the [LGPP Manual](#) describes the state and federal statutes related to non-segregated facilities.

9.3.14 Patented/Proprietary Products

Prior to Oct. 28, 2019, federal funds would not participate in a premium or royalty on any patented or proprietary product. However, this regulation was revised per [FHWA guidance](#) to provide that project sponsors may procure patented or proprietary products, and TxDOT will no longer be required to provide certifications, request public interest findings, or develop research or experimental work plans.

The LG should provide notification to TxDOT with the proposed PS&E if it intends to specify patented or proprietary products in a contract. Details regarding the use of patented or proprietary products that must be followed and properly documented are found in Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of the [LGPP Manual](#) and this [Guide](#).

9.3.15 Prevailing Minimum Wage (Davis-Bacon Act)

9.3.15.1 General

The LG is responsible for ensuring that wage rate language consistent with requirements of the Davis-Bacon Act is included in the contract and that wage rates are posted at the site of work. The LG is also responsible for assuring the contractor is paying workers appropriately and must coordinate with the TxDOT district office for oversight during construction.

Payrolls submitted must conform to the requirements of U.S. Department of Labor (USDOL) [Form WH-347](#), including the required "Statement of Compliance" outlined in [Form FHWA-1273](#) Section IV.3b(3). Contractors and subcontractors must maintain the payrolls and related documents associated with the contract a minimum of three years from the date of project completion. All project payroll records must be available to LG, TxDOT, FHWA or USDOL representatives for inspections, copying or transcription.

The submission of subcontractor payrolls is the responsibility of the prime contractor. If the prime contractor or subcontractor fails to submit the required weekly payrolls or make such

records available for review, the LG, TxDOT, FHWA or USDOL may, after written notice to the contractor, suspend further payment under the contract. Furthermore, failure to submit the required payrolls or make such records available for review may be grounds for debarment in accordance with [29 CFR 5.12](#).

Details regarding the specific requirements for prevailing minimum wage that must be followed and properly documented are found in Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of the [LGPP Manual](#). Related procedures for implementing the Davis-Bacon Act are included in Chapter 7 of this [Guide](#).

9.3.15.2 Required Practices

- Contractor and subcontractor submission of certified weekly payrolls to the LG for the duration of the project.

9.3.15.3 LG Responsibilities

- The LG must assure the provisions are included in all contracts and subcontracts exceeding \$2,000.
- The LG must assure the wage rates are posted at the site of work.
- The LG may request additional classifications from the USDOL as necessary using [Form SF-1444](#).
- The LG must assure workers are paid appropriate wages for the work classification by conducting three labor interviews per quarter of contractor and subcontractor personnel.
- The LG must assure the contractor pays overtime for work in excess of 40 hours in a work week.
- The LG must work with the USDOL to resolve any violations.

9.3.15.4 TxDOT District Responsibilities

- For projects with federal funds, the district must provide guidance to the LG in obtaining additional wage classifications from USDOL, if requested.
- The district must spot check the labor interviews performed by the LG, as well as at least one contractor or subcontractor payroll per project.

9.3.16 Prison-produced Materials

For the majority of projects in Texas, prison-produced materials are not allowed, and the LG is responsible for including language prohibiting the use of prison-produced materials in the bid documents. Details regarding state and federal requirements related to prison-produced materials that must be followed and properly documented are found in Chapter 7 - Plans,

Specifications & Estimates (PS&E) Development of the [LGPP Manual](#). The corresponding portion of Chapter 7 in this [Guide](#) provides the required practices.

9.3.17 Publicly Owned Equipment

Publicly owned equipment is defined as “equipment previously purchased or otherwise acquired by the public agency involved for use in its own operations.” Publicly owned equipment should not normally compete with privately owned equipment on a contracted project. However, in exceptional cases, a showing that it would clearly be cost effective to use publicly owned equipment may be justified. When supported by a public interest finding, TxDOT may approve the LG’s proposal to use publicly owned equipment.

The LG should not include contract provisions requiring the use of LG equipment unless approved in writing by TxDOT. Details regarding the use of publicly owned equipment that must be followed and properly documented are found in the Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of this [Guide](#). The state and federal requirements related to publicly owned equipment are listed in Chapter 7 of the [LGPP Manual](#).

9.3.18 Title VI Compliance

Pursuant to [Title VI of the Civil Rights Act of 1964](#), it is the policy of TxDOT that discrimination based on race, color, national origin, sex, age or disability shall not occur in connection with any of its programs or activities. The LG is responsible for ensuring both the LG and its contractors, as appropriate, comply with Title VI and remedy any existing compliance problems during construction. Details regarding specific Title VI compliance requirements that must be followed and properly documented are found in Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of the [LGPP Manual](#). The procedures that should be used by the LG to ensure compliance are included in Chapter 7 of this [Guide](#).

9.3.19 Safety: Accident Prevention (OSHA)

Provisions of the Occupational Safety and Health Administration (OSHA) apply to LG/TxDOT construction projects for the purpose of reducing the occurrence of accidents on the construction site. The administration of the national program for occupational safety and health rests with OSHA.

FHWA is required by law to ensure compliance with construction safety standards. The LG has enforcement responsibilities of any applicable state standards. In addition, the LG should cooperate with and alert other responsible agencies regarding serious violations and provide full cooperation and assistance as required. Details regarding specific accident prevention requirements that must be followed and properly documented are found in Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of the [LGPP Manual](#). Procedures for implementing these requirements are contained in Chapter 7 of this [Guide](#).

9.3.20 Trench Safety

According to OSHA, dozens of people are killed each year and hundreds are injured in trenches on construction sites. OSHA has established several trench safety requirements, such as:

- trenches 5-feet deep or more require a trench protection system;

- trenches 20-feet deep or more require a trench protection system be designed by a registered professional engineer;
- allowable trench protection systems include:
 - sloping – protects workers by cutting back the trench wall at an angle inclined away from the excavation;
 - shoring – protects workers by installing aluminum hydraulic or other types of supports to prevent soil movement; and
 - shielding – protects workers by using trench boxes or other types of supports to prevent soil cave-ins.
- trenches required to be inspected daily and, as conditions change, by a competent person prior to worker entry to ensure elimination of excavation hazards.

To assure trench safety receives the attention it deserves, [Texas Health and Safety Code, Chapter 756, Subchapter C](#) outlines several construction project requirements.

The LG is responsible for including the appropriate provisions for trench safety into the bid documents and for coordinating with the TxDOT district office during construction. Details regarding specific trench safety requirements that must be followed and properly documented are found in Chapter 7 - Plans, Specifications & Estimates (PS&E) Development of the [LGPP Manual](#). Procedures that must be followed to implement these requirements are described in the Chapter 7 of this [Guide](#).

9.3.21 Purchase of Equipment

9.3.21.1 General

Equipment, as defined in [2 CFR 200.1](#), means “tangible personal property (including information technology systems) having a useful life of more than one year and a per-unit acquisition cost which equals or exceeds the lesser of the capitalization level established by the non-Federal entity for financial statement purposes, or \$5,000.” All other tangible personal property is considered to be “supply.” A LG may need to purchase equipment to adequately meet the construction engineering requirements of a project. A LG may either purchase equipment directly, or the construction contractor may purchase the equipment and subsequently transfer the ownership to the LG. Most costs, including equipment purchases, incurred by LGs are eligible for federal-aid reimbursement either as a direct cost or an indirect cost.

- Indirect cost rates must be approved by TxDOT prior to reimbursement.
- For direct costs, the LG must amortize the equipment’s cost over its useful life. Federal-aid funds will participate only in the portion of the amortized cost attributable to the time the equipment is used on a specific federal-aid project(s).

The [LGPP Manual](#) lists the federal requirements for reimbursement of the costs associated with equipment purchase.

9.3.21.2 Required Practices

- Federal participation is limited to the cost of the equipment amortized for the time it is used on the project.
- As a matter of policy, TxDOT will limit state fund participation in accordance with FHWA policy.

9.3.21.3 LG Responsibilities

- The LG must submit an amortization schedule to TxDOT for approval.

9.3.21.4 TxDOT District Responsibilities

- For projects with state or federal funds, the district must review the LG's amortization schedule and concur if the schedule is reasonable.

9.3.22 Convict (Inmate) Labor

9.3.22.1 General

Convict labor is the work of prison inmates on a construction site. Although federal regulations place limitations on using convict labor on federal-aid projects, state requirements may allow the use of convict labor on state-funded projects as described in the [LGPP Manual](#).

9.3.22.2 Required Practices

- The LG must gain TxDOT concurrence before allowing convict or inmate labor on projects involving:
 - federal funds on a roadway functionally classified as a rural minor collector or a local road, and on the state system; and
 - state funds on the state system.
- The LG may use its own practices for projects involving:
 - federal funds on a roadway functionally classified as a rural minor collector or local road, and off the state system;
 - state funds off the state system; and
 - no federal or state funds.

9.3.22.3 LG Responsibilities

- For federally funded projects on roadways functionally classified above rural minor collectors, the LG must ensure the contractor does not use convict labor.
- The LG must obtain TxDOT concurrence in order to allow convict labor for projects involving:
 - federal funds on a roadway functionally classified as a rural minor collector or local road, and on the state system; and
 - state funds on the state system.

9.3.22.4 TxDOT District Responsibilities

- For federally funded projects on roadways functionally classified above rural minor collectors, the district must review the PS&E or request for proposal to assure there are provisions to prohibit convict labor.
- The district must transmit the LG's request to CST for concurrence if the LG wants to require or allow convict labor involving:
 - federal funds on a roadway functionally classified as a rural minor collector or local road, and on the state system; and
 - state funds on the state system.
- There is no monitoring on projects involving:
 - federal funds on a roadway functionally classified as a rural minor collector or local road, and off the state system;
 - state funds off the state system; and
 - no federal or state funds.

9.3.23 False Statements**9.3.23.1 General**

The following false statement notice ([Form FHWA-1022](#)) must be posted on each federal-aid highway project in one or more places where it is readily available to and viewable by all personnel concerned with the project. The notice must also contain the relevant contact information.

The [LGPP Manual](#) provides the federal statute relating to this notice.

9.3.23.2 Required Practices

- The notice is required to be posted on all federal-aid highway projects in one or more places where it is readily available to and viewable by all personnel concerned with the project.

9.3.23.3 LG Responsibilities

- The LG must ensure [Form FHWA-1022](#) is posted on the job site and contains relevant contact information.
- The LG must report incidents involving false statements to TxDOT.

9.3.23.4 TxDOT District Responsibilities

- For projects with federal funds, the district must spot check the posting of the false statements poster during routine project inspections.

9.3.24 Salvage Credits**9.3.24.1 General**

Salvaged materials associated with a contract must be disposed of in accordance with federal and state statutes as described in the [LGPP Manual](#). The disposition of property must be made through competitive bidding or auction to the highest bidder.

9.3.24.2 Required Practices

- For projects on the state system with state and federal funds, the LG must follow the procedures described in [1 TAC Chapter 126](#).
- For all projects, the contract documents must be clear on ownership of material found on the project. For contract work, the contractor's bid price will reflect the cost of disposal or ownership.

9.3.24.3 LG Responsibilities

- The LG must contact the Texas Facilities Commission and follow the provisions of [1 TAC Chapter 126](#) for the disposal of surplus property during construction.

9.3.24.4 TxDOT District Responsibilities

- For projects on the state system with state or federal funds, the district must review plans and change orders for disposal of surplus property for compliance with the Texas Administrative Code.
- There is no monitoring on projects without state or federal funds unless specified in the agreement with TxDOT.

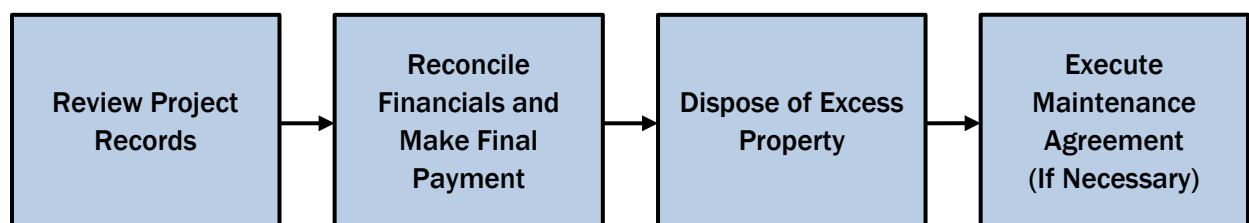
10 Project Close-out and Maintenance

10.1 Introduction

The final phase of a non-construction or construction project involving a partnership between a local government (LG) and the Texas Department of Transportation (TxDOT) is the project close-out and the establishment of a maintenance agreement, if necessary. At the end of work on the project, the LG and TxDOT will concur the project scope has been completed according to the advance funding agreement (AFA) and contract documents for both construction and non-construction projects. TxDOT and the LG will determine each party's final share of the project costs and make final payment. The parties will enter into a maintenance agreement if appropriate for the project. For the purposes of this chapter, the term "TxDOT" or "the TxDOT district" is referring to the TxDOT office, division, district or area office that has project oversight responsibilities.

This chapter of the Local Government Project Management Guide (LGPM Guide) describes the procedures required to close-out the project and establish a maintenance agreement, if required. The companion [Local Government Projects Policy Manual \(LGPP Manual\)](#) provides related policies and regulations for this phase of the project. The general tasks listed below are usually typical of project close-out and are shown on the subsequent flowchart:

- review the project for compliance with the AFA and bid documents;
- ensure the right-of-way and utility relocation documentations are complete;
- complete the final form documenting disadvantaged business enterprise (DBE) compliance;
- complete project records, including:
 - financial documents;
 - a "Notification of Completion" acknowledging the project's construction completion and submit certification sealed by a professional engineer licensed in the State of Texas;
 - a set of as-built plans to the TxDOT district if the project is on the State Highway System;
- records review;
- receive final payment/reimbursement, and
- dispose of excess property.



In some cases, the LG and TxDOT may cooperate in the maintenance of the state highway system. This will be contracted through a municipal maintenance agreement or through an AFA for a specific project. The tasks associated with these agreements will depend on the type of agreement and are briefly described in [Section 3](#). A workflow of the Project Close-Out and Maintenance phase is presented in more detail in the [LG Project Process Development Flowchart](#).

10.2 Project Close-out

10.2.1 Overview

Project close-out is a critical step in the project and is necessary to complete the requirements of the AFA. Close-out includes a project review by TxDOT to:

- determine if all work was completed and acceptable to TxDOT;
- determine each party's final cost share for the project;
- process the final payment to close the work on the project; and
- complete the project audit.

The close-out process requires the LG to provide physical or electronic access to all necessary project documentation to TxDOT for review. Upon completion of its review, the LG will retain the project files as defined in the AFA.

10.2.2 Project Review

Within 30 days of project completion, the LG should submit to the TxDOT district the final reimbursement request with backup documentation and provide access to the project records for final review. All requests for reimbursable costs must be submitted no later than 90 days after the project completion end date, as established pursuant to [2 CFR 200.211\(b\)\(5\)](#). The following procedures must be followed.

- The LG shall deliver the final billing statement that may include the retained percentage of final construction cost (if withheld from LG by TxDOT) and required documents to the TxDOT project manager.
- TxDOT district or area office personnel will review all required elements of the project using the Final Project Records Review Report and/or other review tools from the [Best Practices Workbook](#).
- TxDOT district personnel will perform a review of the project records and documentation (includes right-of-way acquisition, utility accommodation and DBE compliance documents).
- If hard copy records were provided, TxDOT will ensure the records are secured and returned to the LG after performance of the review.
- TxDOT will provide a final project report to the LG along with returning the project records; this may include instructions to address comments, if any, from the records review.
- The final billing statement will be paid within 10 days of TxDOT's review being completed and comments, if any, are addressed.

- After final payment to the LG has been processed in the TxDOT financial management system, the TxDOT district office must notify the Accounting Management Section of TxDOT's Financial Management (FIN) Division via e-mail that the project is complete so the project can be inactivated in the financial management system.
- All federally funded projects are subject to final audit by the Federal Highway Administration (FHWA). If the FHWA audit identifies any inconsistencies in payment from contract terms or if the audit rules any previously reimbursed expenses ineligible, TxDOT will prepare a revised final statement of cost (SOC) and mail it to the LG along with a reimbursement check or a letter requesting the LG repay TxDOT the appropriate amount of previously reimbursed expenses. If additional funds are required as a result of the FHWA audit and are not paid within 90 days, the TxDOT district office will place a warrant hold on the LG ensuring that no treasury warrants are issued to the LG until payment is received.

10.2.3 Final Close-out

The primary responsibility to fiscally close-out an AFA project lies with the TxDOT district or division. The district maintains cost data throughout the project and should determine the actual shared cost at the conclusion of the work on the project. All financial records will be reconciled against the data in the TxDOT financial management system. If the LG has overpaid for costs incurred by TxDOT, the unexpended funds will be returned to the LG. If the LG has underpaid for costs incurred by TxDOT, the LG will submit the additional funds in accordance with the requirements of the individual AFA. The district should prepare a SOC detailing the necessary information that would allow FIN to refund money or notify FIN that additional funds must be collected from the LG. FIN will submit [FWHA Form PR-20](#) to FHWA.

- The TxDOT district office will process a certified SOC after the project has been inactivated within the financial management system and within 90 days from when final payment was made to the LG. The district will coordinate with FIN to obtain concurrence and will then provide the approved SOC to the LG with either a reimbursement for any excess escrow funds or a letter requesting additional funds from the LG. The request for additional funds shall contain a due date for receipt of payment that is no later than 30 days following the date of the request.
- If payment is not received by the stated due date in the request letter, districts shall follow [43 TAC §5.10](#), Collection of Debts, which entails mailing out demand letters and possibly having to contact the Payments Management Section of FIN to initiate a "warrant hold" on that entity. The "warrant hold" procedure, which is officially processed by the Texas Comptroller of Public Accounts, ensures no treasury warrants are issued to the LG until payment is received. SOC procedures can be found in Section 1.6 of TxDOT's Financial Management Policy Manual, which is available from TxDOT's district offices through the TxDOT intranet system.

10.2.4 Audit

Provisions in the AFA between TxDOT and the LG dictate the project audit requirements. The AFA will contain project specific information on the audit requirements. The retention of complete records by the LG and TxDOT will provide for a more efficient audit process. The [LGPP Manual](#) provides the regulations governing the audit.

10.2.5 Document Retention

When a contract is closed out, the file of record should be securely stored by the LG and protected until the legal document retention requirements have been met as specified in the AFA. The project records must be kept during the contract period and for the length of time after completion of the project activities as specified in the AFA, until completion of all audits or until any pending litigation has been completely and fully resolved, whichever occurs last. However, if the AFA includes right-of-way or surviving (permanent) maintenance provisions, the file must be retained indefinitely. More information on the retention of documents is included in [Chapter 2](#) and [Chapter 9](#) of this Guide and in [Chapter 2](#) and [Chapter 9](#) of the LGPP Manual.

10.2.6 Disposition of Excess Property

10.2.6.1 General

Consideration should be given for the disposition of property interests recommended as being no longer needed for highway purposes. TxDOT's Right of Way (ROW) Division is available to facilitate all dispositions of real property. Additional information on the disposition of property can be found in [TxDOT's ROW Property Management Manual](#). LGs should also be aware that certain requirements apply to the disposition of real property acquired as part of a federally assisted project. The [LGPP Manual](#) describes the federal and state regulations associated with the disposition of excess property.

10.2.6.2 Required Practices

- At the completion of the project, the property interests associated with the project should be reviewed and a determination made if the property is no longer needed for highway purposes.
- The LG should coordinate the disposition of property with the TxDOT project manager.
- For federal-aid projects, federal requirements must be followed for the disposition of property.

10.2.6.3 LG Responsibilities

- The LG should review its property interests at the completion of the project and develop a plan for the disposition of property interests that are no longer needed according to the procedures in [TxDOT's ROW Property Management Manual](#).
- The LG should coordinate with the TxDOT project manager.

- For federal aid projects, the LG must follow the federal requirements for disposition of real property.

10.2.6.4 TxDOT District Responsibilities

- For the disposition of real property, the TxDOT project manager should provide assistance to the LG and coordinate with ROW, if appropriate.

10.3 Maintenance

10.3.1 Overview

LGs and TxDOT district offices have frequently cooperated in the maintenance of the state highway system. From a contractual perspective, this is done either through a municipal maintenance agreement or through an AFA for a specific project. The LG may assume all or part of the responsibility for maintenance in these agreements; however, the district remains the primary contact between TxDOT and the LG and, therefore, takes the lead in assuring projects are maintained in accordance with agreement provisions.

10.3.2 Municipalities

The LG and TxDOT must follow state regulations related to maintenance activities and agreements within an incorporated city's limits. The [LGPP Manual](#) describes the policies and regulations regulating these activities.

10.3.3 Federally Funded Projects

All projects built with federal funds have an executed agreement between FHWA and TxDOT. One agreement provision requires maintenance of the completed project. For projects on the state highway system, TxDOT will normally perform the maintenance with state forces or through a contract with a private vendor. For projects off the state highway system, the LG must assure the project is maintained "satisfactorily." Maintenance responsibilities are outlined in the AFA. For example, an enhancement project AFA requires the LG to maintain the project for a period of at least 10 years. Federally funded project AFAs usually require the LG to maintain the subject highway improvements indefinitely, as long as the highway is in use. Chapter 2 of the [LGPP Manual](#) and this [Guide](#) contain more information on these two types of agreements. TxDOT and FHWA retain authority to periodically review federally funded projects and assess the LG's efforts to maintain the project as designed.

10.3.4 Comprehensive Maintenance Management Agreement

10.3.4.1 General

When the LG agrees to maintain the highway facility, a comprehensive maintenance management agreement (CMMA) must be complete. TxDOT's Maintenance Division will serve as the approval agency for the CMMA. The [LGPP Manual](#) provides the regulations associated with these agreements.

10.3.4.2 Required Practices

- Local maintenance of a roadway on the state highway system or funded with state or federal funds must meet or exceed the most current standards and guidelines found in the [Maintenance Operations Manual](#), [Maintenance Management Manual](#), [Use of Right of Way by Others Manual](#) and [computer aided drawings standard plan files](#).

10.3.4.3 LG Responsibilities

- The LG must complete a CMMA and submit to TxDOT for approval.

- The LG must use the standards and guidelines found in TxDOT manuals to develop maintenance plans for projects on the state highway system or funded with state or federal funds.

10.3.4.4 TxDOT Responsibilities

- The TxDOT district must coordinate approvals for the CMMA through the Maintenance Division.

10.3.5 One-year Maintenance Plans and Inspections

In addition to having a CMMA, each year a maintenance plan must be developed and submitted to TxDOT for approval at least 30 days before the beginning of the fiscal year. The plan shall follow the CMMA for items to be maintained by the LG. Each year the maintenance plan shall be updated and approved by TxDOT.

As specified in the AFA, regular inspections should be made by the LG to determine the condition of the highway in order to establish maintenance needs. TxDOT will make inspections to determine compliance with the maintenance requirements of the CMMA and one-year plan. The standard set in the CMMA may be revised by the one-year plan if approved by TxDOT.

10.3.6 Material Specifications

Materials utilized in maintenance of the facilities on the state highway system must conform to the latest version of TxDOT's [Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges](#), and must conform to TxDOT's required [special specifications and special provisions](#). TxDOT may approve the use of an alternative specification if the proposed alternative specification is determined to be sufficient to ensure the quality and durability of the finished product for the intended use and the safety of the traveling public.

Materials utilized in maintenance of the facilities off the state highway system do not have to conform to TxDOT standards. However, if federal funds were used in the construction, the LG should use materials providing a comparable level of service and safety.