

Arizona Department of Transportation

Local Public Agency Projects Manual

Prepared for

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*The manual will be updated for rules and procedure changes through an established process.
If a user wishes to make comments for ongoing improvement or to report errors, complete the comment form at:
<http://www.azdot.gov/business/programs-and-partnerships/LocalPublicAgency>*

The Arizona Department of Transportation's (ADOT's) process for working with Local Public Agencies (LPAs) in the development and delivery of their transportation projects has evolved over the years. Recent changes in Arizona's economy have reduced the distribution of state funds for local transportation projects, which has increased the demand for federal funding sources. In response to the anticipated increase in LPA projects desiring the use of federal funds and the continuing need to meet state and local transportation requirements, this updated manual highlights the steps necessary to capably deliver LPA projects in compliance with federal, state, and local requirements.

The ADOT *Local Public Agency Projects Manual* has been a collaborative effort among the various Divisions, Groups, and Sections within ADOT, as well as the Federal Highway Administration (FHWA) Arizona Division, with input from LPAs. ADOT would like to express sincere gratitude to Logan Simpson Design Inc. for successfully facilitating that effort and for their contribution to the production of this manual. Their hard work and in-depth coordination with ADOT and FHWA staff has been invaluable to the preparation of this manual.

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ABBREVIATIONS

AASHTO	American Association of State Highway and Transportation Officials
ACC	Arizona Corporation Commission
ACIA	Arizona Commission of Indian Affairs
ADA	Americans with Disabilities Act
ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
APE	area of potential effect
ARS	Arizona Revised Statutes
ATIS	Arizona Transportation Information System
ATSPT	Arizona Tribal Strategic Partnering Team
AZPDES	Arizona Pollutant Discharge Elimination System
BIA	U.S. Bureau of Indian Affairs
BLM	U.S. Bureau of Land Management
bqAZ	Building a Quality Arizona
CAA	Clean Air Act
CAAG	Central Arizona Association of Governments
CCP	Communication and Community Partnerships (ADOT)
CE	categorical exclusion
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CGP	Construction General Permit
CMAQ	Congestion Mitigation and Air Quality Improvement Program
COG	council of governments
Corps	U.S. Army Corps of Engineers
CRO	Civil Rights Office (ADOT)
C&S	Contracts and Specifications Section (ADOT)
CTIP	Coordinated Technology Implementation Program
CWA	Clean Water Act
CWHSSA	Contract Work Hours and Safety Standards Act
CYMPO	Central Yavapai Metropolitan Planning Organization
DBE	Disadvantaged Business Enterprise
DCR	design concept report
EA	environmental assessment
ECS	Engineering Consultants Services Section (ADOT)
EEO	Equal Employment Opportunity

EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
EPG	Environmental Planning Group (ADOT)
ER	Emergency Relief
ESA	environmental site assessment
FAA	Federal Aviation Administration
FAHP	Federal-Aid Highway Program
FEMA	Federal Emergency Management Agency
FIRE	Financial Integrity Review and Evaluation
FMIS	Fiscal Management Information System
FMPO	Flagstaff Metropolitan Planning Organization
FHWA	Federal Highway Administration
Five-Year Program	Five-Year Transportation Facilities Construction Program for Highways and Airports
FLHP	Federal Lands Highway Program
FONSI	Finding of No Significant Impact
FTA	Federal Transit Administration
GIS	geographic information system
GOHS	Governor's Office of Highway Safety
HBP	Highway Bridge Program
HPP/TI	High Priority Projects/Transportation Improvements
HPT	Historic Preservation Team (ADOT)
HRRRP	High Risk Rural Roads Program
HSIP	Highway Safety Improvement Program
IGA	intergovernmental agreement
IP	individual permit
ITCA	Inter Tribal Council of Arizona
ITD	Intermodal Transportation Division (ADOT)
JD	jurisdictional delineation
JPA	joint project agreement
LEP	limited English proficiency
LPA Section	Local Public Agency Section (ADOT)
LPA	local public agency
LRTP	long-range transportation plan
LWCF	Land and Water Conservation Fund
MAG	Maricopa Association of Governments
MDR	materials design report
MPD	Multimodal Planning Division (ADOT)

MPO	metropolitan planning organization
MS4	municipal separate storm sewer system
MSATs	mobile source air toxics
NAAQS	National Ambient Air Quality Standards
NACOG	Northern Arizona Council of Governments
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NHS	National Highway System
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NWP	nationwide permit
OMB	U.S. Office of Management and Budget
OJT	on-the-job training
PA	project assessment
PAG	Pima Association of Governments
PARA	Planning Assistance for Rural Areas
PIF	public interest finding
PISA	preliminary initial site assessment
PPAC	Priority Planning Advisory Committee
PS&Es	plans, specifications, and estimates
QA	quality assurance
QBS	qualification-based selection
QC	quality control
RHGCP	Railway-Highway Grade Crossing Program
ROD	Record of Decision
ROW	right-of-way
ROW Group	Right of Way Group (ADOT)
RTP	regional transportation plan
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SEAGO	SouthEastern Arizona Government Organization
SEP-14	Special Experimental Project No.14
SHPO	State Historic Preservation Office
SHS	State Highway System
SHSP	Strategic Highway Safety Plan
SRTS	Safe Routes to School

STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program
SUE	subsurface utility engineering
SWPPP	stormwater pollution prevention plan
TAC	Technical Advisory Committee
TE	Transportation Enhancement
TE/SR	Transportation Enhancement and Scenic Roads (ADOT)
TERO	Tribal Employment Rights Office
THPO	Tribal Historic Preservation Office
TIP	transportation improvement program
TMA	transportation management area
TNW	traditional navigable waters
TRACS	Transportation Accounting System
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act for Federal and Federally Assisted Programs
URR	Utilities and Railroad Engineering Section (ADOT)
U.S.	United States
USC	United States Code
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
VE	value engineering
WACOG	Western Arizona Council of Governments
Waters	waters of the United States
YMPO	Yuma Metropolitan Planning Organization



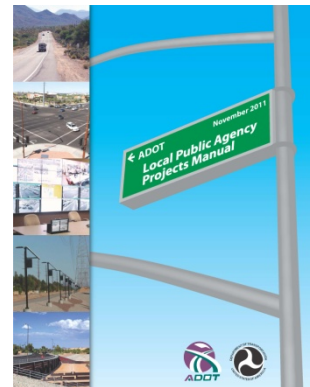
CHAPTER 1

Project Overview

Introduction

The Federal Highway Administration (FHWA) delegates authority to the Arizona Department of Transportation (ADOT) to administer federally funded local public agency (LPA) projects through the *FHWA and ADOT Stewardship and Oversight Agreement for Arizona*. ADOT and FHWA's Arizona Division follow the provisions and oversight responsibilities outlined in the agreement to implement the Federal-Aid Highway Program (FAHP).

This *ADOT Local Public Agency Projects Manual* provides information and guidance to assist LPAs (i.e., counties, cities, towns, and tribal governments) with projects funded under the FAHP, from planning to final acceptance (Figure 1-1). The manual outlines the ADOT and FHWA policies and procedures that federally funded LPA projects must follow and provides references to important contacts and resources throughout the project development process. This chapter introduces the project life cycle and provides a brief overview of how federally funded LPA projects are developed; specific policy and procedural guidance that is applicable to a project's life cycle is detailed in Chapters 2 through 18. This manual is not intended to include all the requirements that may be necessary for an LPA project. Instead, it discusses the various roles and responsibilities relevant to an LPA project and references specific outside sources for detailed instructions concerning ADOT's and FHWA's policies and procedures.



This manual is a living document and is subject to change as ADOT or FHWA policies and procedures are updated. For the most recent version of the manual, see the ADOT Local Public Agency Section (LPA Section) website.



Figure 1-1 Overview of the Project Development Process

LPA's are encouraged to become familiar with ADOT and FHWA policies and procedures applicable to their project. ADOT and FHWA manuals and websites provide information about how to meet ADOT and federal requirements when developing LPA projects. The Resources list at the end of each chapter provides links to important policy and procedural documents and websites to assist LPA's in the project development process so that they have the information needed to successfully deliver their projects.



The *ADOT Local Public Agency Projects Manual* provides information and guidance regarding ADOT and FHWA policies and procedures applicable to federally funded LPA projects and provides references to important contacts and resources throughout the project development process. Local agencies and organizations, such as metropolitan planning organizations and councils of governments, should be contacted for information regarding local policy and procedural requirements.

Project Life Cycle

The life cycle of an LPA project consists of specific phases completed as part of the federal-aid project development process (Figure 1-2). The *ADOT Local Public Agency Projects Manual* follows the project life cycle and emphasizes the phases of the project development process, which include:

- Planning/programming
- Development/design
- Construction
- Final acceptance

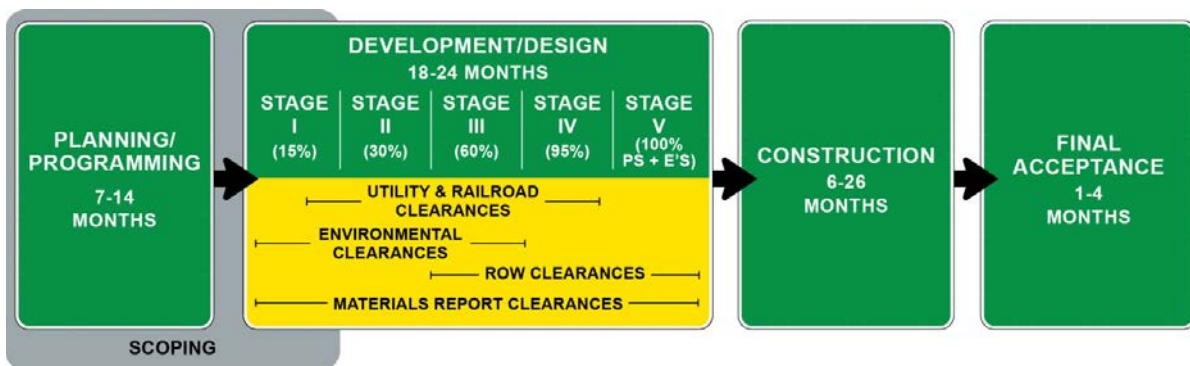


Figure 1-2 Life Cycle of the Project Development Process

This manual also provides detailed information regarding an LPA's project management duties, environmental and financial obligations, civil rights commitments, contracting and procurement requirements, and general administrative roles and responsibilities necessary throughout the project life cycle.

Roles and responsibilities for LPA project activities may vary depending on whether the project is administered by ADOT or by the LPA. See the Project Administration section of this chapter for a summary of ADOT administration, self-administration, and Certification Acceptance. Detailed information on the processes for each administration type is discussed in Chapter 2, ADOT Administration; Chapter 3, Self-Administration; and Chapter 4, Certification Acceptance.

Project Development Process

During the different phases of the project development process, LPA projects are planned, programmed, designed, constructed, and accepted according to established FHWA and ADOT policies and procedures (Figure 1-2). The completion of each phase signifies a major project milestone, since each phase produces the necessary information and documentation that is required to proceed through the process and to deliver a successful project. Brief descriptions of each phase of the project development process are provided in the sections that follow.

Timeline

The typical LPA project takes approximately 7 to 14 months for planning/programming, 18 to 24 months for development/design, 6 to 26 months for construction, and 1 to 4 months for final acceptance (Figure 1-3). However, the timeline for any given LPA project can vary significantly from the “typical” timeline, depending on project specifics and complexity. LPAs should coordinate with their ADOT project manager to determine a realistic anticipated timeline for each project.



Figure 1-3 Project Development Process Milestone Timeline

Some procedural requirements can significantly affect the project’s schedule and cost. For instance, the environmental clearance process can take as little as a few months or may take more than 3 years depending on the complexity of the project. The typical environmental clearance process takes 10 to 12 months from initial submittal to environmental clearance, but the time needed to achieve environmental clearance varies from project to project, depending on the potential for environmental impacts and the level of documentation needed.

Planning/Programming

Planning/programming is the first phase in the project development process (Figure 1-4). Transportation planning is an interdisciplinary process that systematically analyzes transportation issues and their impacts on Arizona’s social, economic, physical, natural, and political environment. The planning process is continuous, comprehensive, and cooperative (i.e., the three Cs), engaging residents and other stakeholders to provide input on their vision for the future of the state transportation system, as well as for specific projects.

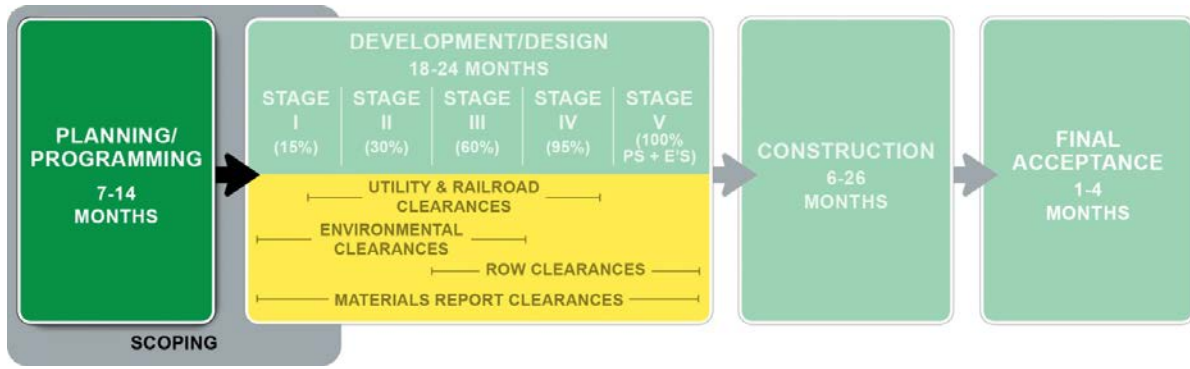


Figure 1-4 Planning/Programming in the Project Life Cycle

Programming occurs on the project level and involves the identification of short-term, fiscally constrained capital improvement programs that commit funds to planned and eligible projects. During programming activities, ADOT works with LPAs to carry out federal transportation policy and administer federal funding requirements.

Project Identification

Key documents for identification and prioritization of projects during the transportation planning/programming process include the Statewide Transportation Planning Framework; the State Long-Range Transportation Plan (LRTP); the Five-Year Transportation Facilities Construction Program for Highways and Airports (Five-Year Program); the Statewide Transportation Improvement Program (STIP); and regional transportation plans (RTPs) and regional transportation improvement programs (TIPs), managed by metropolitan planning organizations (MPOs) and councils of governments (COGs) (Figure 1-5).

LPA projects must first be listed in their regional TIP to be eligible for federal funds. LPAs should consult with their regional MPO/COG for instructions on the process and deadlines for adding projects to regional TIPs (see Appendix A for MPO/COG contact information).

**PLANNING/
PROGRAMMING**

- > Project identified
- > Funding identified/eligibility approved
- > Programmed in TIP
- > Programmed in STIP
- > TRACS # assigned
- > Federal aid # assigned
- > Scoping
- > IGA

**CHAPTER
6-7**

The TIP is compiled by the local MPO or COG and submitted to the ADOT Multimodal Planning Division (MPD) each year in order to become part of the STIP. The STIP is a compilation of all the TIPs within the state, as well as a listing of all anticipated funding and priority projects that have gone through the planning and programming process in accordance with ADOT and FHWA federal-aid procedures. Certain projects may be eligible for listing directly in the STIP. The STIP is reviewed and submitted by ADOT to FHWA and FTA for a joint approval. Once projects are in the STIP, LPAs can initiate their projects with ADOT by requesting ADOT Transportation Accounting System (TRACS) and federal-aid numbers from their assigned ADOT project managers.

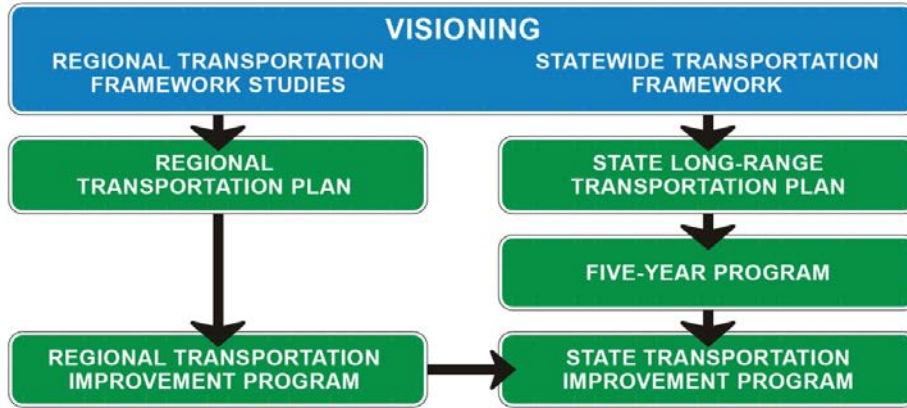


Figure 1-5 Project Identification Process

Scoping

Scoping should define a project’s purpose and need, budget, schedule, scale, and any anticipated issues and opportunities. Projects must be evaluated multiple times: during the planning process, during the programming process, and during the development/design phase. ADOT encourages LPAs to scope projects as thoroughly as possible and to evaluate cost estimates during planning before projects are included in regional TIPs to ensure adequate funding is obtained. Timely identification of the project purpose and need, along with logical termini, during preliminary scoping is critical to support project advancement.

During programming, scoping focuses on defining the details of a specific project that will be proposed for inclusion in a TIP and the STIP. The level of scoping during the programming phase should:

- ▶ Be commensurate with the complexity of the proposed project;
- ▶ Identify any fatal flaws;
- ▶ Define project cost and budget sufficiently to allow the project to be programmed;
- ▶ Be sufficient to support an analysis of the level of environmental investigations, right-of-way (ROW) clearances, utility/railroad coordination, and materials report clearances that will be required during the design phase.

The anticipated project costs must take into consideration the expected year of expenditure to account for anticipated inflation; otherwise, there may be insufficient federal funds to complete the project as initially planned. Finally, scoping during the development/design phase involves preparing a formal scoping document, such as a project assessment (PA) or design concept report (DCR). Chapter 7, Scoping, provides information on the various scoping tasks that occur throughout the LPA project life cycle.

Funding

LPA projects may be eligible for federal funding under the FAHP, which is a reimbursement program administered by FHWA. The FAHP makes funds available to states and LPAs for a variety of highway, road, and street improvements. FHWA reimburses ADOT for the federal share (i.e., pro rata amount) of eligible costs for LPA projects; ADOT, in turn, will reimburse the LPA as costs are incurred. The LPA is responsible for project funding not provided by FHWA for LPA projects (i.e., “local match” funding). FAHP funds are authorized by Congress for

FHWA programs and activities and are made available to states at the beginning of each federal fiscal year (October 1). FHWA receives contract authority to obligate FAHP funds through an authorization act, which typically covers a multiyear period. LPAs should consult with their regional MPO/COG or with ADOT MPD for guidance on how to apply for specific funding.

Federal-aid funding can be used for project activities within one or more phases of a project (i.e., preliminary engineering, ROW, and/or construction), and authorization is required for each phase in which funds will be applied. The source of federal funds must be identified and determined eligible for those funds by FHWA before the LPA submits the project for inclusion in a TIP. Once the project has been included in a TIP and the STIP, and an intergovernmental agreement (IGA) is fully executed (if needed), the LPA may apply for authorization for any or all eligible project activities.



LPA projects must be listed in a TIP and the STIP before they can receive federal funding authorization. Project costs incurred before the federal authorization effective date are not eligible for reimbursement with federal funds.

It is recommended that LPAs submit all authorization request paperwork to their ADOT project manager by June 1 for processing. ADOT and FHWA need sufficient time to authorize by June 30 and obligate federal-aid funding before their September 15 deadline before the beginning of the federal fiscal year. FHWA enters LPA project information into the Fiscal Management Information System (FMIS), which is the agency’s accounting system. Upon receiving an authorization request, FHWA may approve and obligate federal-aid funds. LPA projects must have an FMIS authorization “effective date” before project work begins for those costs to be eligible for reimbursement with federal funds.

Upon federal authorization, FHWA obligates funds for the authorized phase or phases of the project. Federal funds are provided to LPAs on a reimbursement-only basis and may only be expended after authorization from FHWA. The project is not considered to be closed out until the final voucher payment is recorded in the FMIS. A detailed discussion on federal funding guidelines, sources, and eligibility can be found in Chapter 6, Planning/Programming.



LPAs should submit all authorization request paperwork to their ADOT project manager by June 1 for processing. ADOT and FHWA need sufficient time to authorize and obligate federal-aid funding before their September 15 deadline.

Intergovernmental Agreements

The ADOT Local Public Agency Section (LPA Section) prepares IGAs for all ADOT-administered and self-administered LPA projects and select Certification Acceptance projects. IGAs are legally binding documents that define the obligations of all parties involved in a project; they must be executed before federal funding authorization is obtained. The IGA outlines LPA and ADOT roles and responsibilities, project financing based on the cost estimate developed during programming and scoping, and the estimated costs for ADOT to administer the project. An IGA should be initiated once the LPA’s project is listed in a TIP and in the STIP and after the project has been adequately scoped. Refer to Chapter 2, ADOT Administration, for further information regarding IGAs.



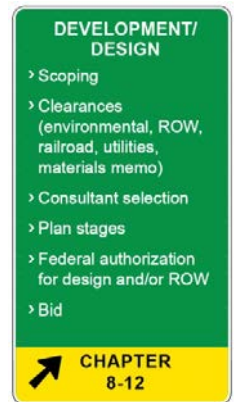
IGA development can begin as soon as the TRACS and federal-aid numbers have been assigned and must be completed before federal funding can be authorized. Be sure to obtain federal authorization before beginning work for any phase or activity funded with federal dollars. Any work conducted before the federal authorization effective date will not be eligible for reimbursement of federal-aid funds. LPAs must pay any costs exceeding the amount of federal aid authorized.

Development/Design

The ADOT development/design process consists of five stages: Stage I (15% design plans), Stage II (30% design plans), Stage III (60% design plans), Stage IV (95% design plans), and Stage V (100% design plans, specifications, and estimates [PS&Es]) (Figure 1-6). The development/design process also includes scoping and other preliminary engineering activities, environmental documents and clearances, ROW clearances, utility and railroad clearances, and materials report clearances. These activities are needed to achieve construction-ready PS&Es.

ADOT-administered projects will follow the five-stage ADOT development/design process described in Chapter 8, Development/Design, but self-administered and Certification Acceptance projects may follow their own design process, as approved by ADOT. However, all projects receiving federal funds for design or any other project activities must comply with all applicable federal and state design standards, requirements, and regulations. Title 23 United States Code (USC) 109 provides that all projects, with the exception of projects on the National Highway System (NHS), shall be designed, constructed, operated, and maintained in accordance with state laws, regulations, directives, safety standards, design standards, and construction standards.

Project design plans and specifications for ADOT-administered and self-administered projects must be approved by the ADOT Contracts and Specifications Section (C&S) before projects can be advertised for bid. Design plans and specifications for Certification Acceptance projects do not require ADOT approval, because their processes have been approved by ADOT during the Certification Acceptance process. Certified LPAs may request ADOT to review plans and specifications, if desired.



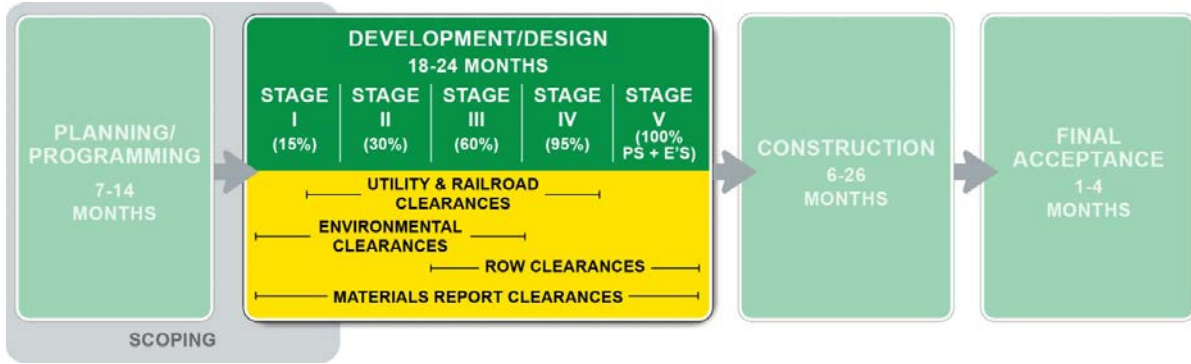


Figure 1-6 Development/Design in the Project Life Cycle

Preliminary Engineering

Following receipt of federal funding authorization for preliminary engineering, LPAs can commence preliminary design activities and establish an anticipated bid-advertisement date. Preliminary engineering during the development/design phase should refine and further evaluate costs; schedule; relevant design standards; potential design and construction alternatives; likely construction constraints; and anticipated clearances, environmental requirements, or permitting needs. Typically, scoping in the preliminary engineering phase is achieved through the preparation of PAs or DCRs in which project-specific evaluations are made. A fully developed scoping document will provide an LPA with a detailed account of the considerations used to generate potential project needs regarding public and private agency coordination, construction feasibility, and anticipated costs. The scoping results will also provide insight on the type and level of LPA staff and consultants that may be necessary for a project.



If at any point during preliminary engineering activities it is discovered that funding provided for a project is inadequate, LPAs must contact their MPO/COG representative and ADOT project manager to discuss amending the TIP and the STIP, respectively, to include the funding necessary for project completion.

Design Criteria and Review

The principal design standards for federally funded LPA projects in Arizona consist of those established by the American Association of State Highway and Transportation Officials (AASHTO), Maricopa Association of Governments, and Pima Association of Governments. In addition, LPAs may use ADOT design guidelines if applicable to their projects. For projects off the National Highway System (NHS), locally adopted specifications, plans, standards, ordinances, and regulations (e.g., street themes, overlay districts, county specifications) may also become criteria for the final project design. Additional requirements may also be placed on projects by tribal, state, and federal landowners who are affected by the project.

All federally funded LPA projects must comply with applicable AASHTO design standards and criteria. LPAs may also use ADOT, Maricopa Association of Governments, or Pima Association of Governments design standards

and criteria for projects. For ADOT-administered and self-administered projects, project specifications must be approved by ADOT C&S before advertising for bid. ADOT-administered projects must also meet ADOT drafting standards, guidelines, and submittal requirements. Self-administered projects are not required to meet ADOT drafting standards, guidelines, and submittal requirements, but doing so is encouraged since it may expedite the ADOT design review process.

LPAs will be assessed a design review fee for ADOT-administered and self-administered projects to recover ADOT’s costs for design review and bid-package preparation while administering development and advertisement. This review fee is due at the time of project initiation (i.e., when the TRACS and federal-aid numbers are requested and assigned). LPAs should contact their ADOT project manager for more information regarding ADOT fees due for specific projects. See the Initiating an LPA Project section in Chapter 2, ADOT Administration, for a summary of estimated costs for ADOT to administer LPA projects.

Refer to Chapter 8, Development/Design, for further information regarding the design and delivery of federally funded projects. Additional information regarding required clearances during the development/design phase is provided in Chapter 9, Environmental Clearances; Chapter 10, Right-of-Way Clearances; Chapter 11, Utility and Railroad Coordination; and Chapter 12, Materials Report Clearances.



The design process for federally funded projects should not proceed beyond Stage III design (60% plans) without final National Environmental Policy Act (NEPA) clearance. Project work proceeding beyond Stage III design before obtaining NEPA clearance, without prior approval by ADOT and FHWA, is considered “at risk” and potentially may not be reimbursed. Refer to Chapter 9, Environmental Clearances, for more information.

Construction

Planning, programming, scoping, and design activities are prerequisites for construction (Figure 1-7). ADOT is responsible for administering the construction of federally funded transportation projects, except when LPAs have been authorized to self-administer the construction phase or when projects are being administered by an LPA under an approved Certification Acceptance agreement (i.e., a certified LPA). Furthermore, for ADOT-administered projects, ADOT is responsible for ensuring that LPAs are in compliance with all federal procurement requirements, for providing adequate inspection and supervision during construction of approved 100% PS&Es, and for meeting FHWA closeout requirements.

CONSTRUCTION

- > Award
- > Construction administration
- > Construction oversight
- > Materials sampling and testing
- > Mitigation
- > Federal authorization

CHAPTER 13

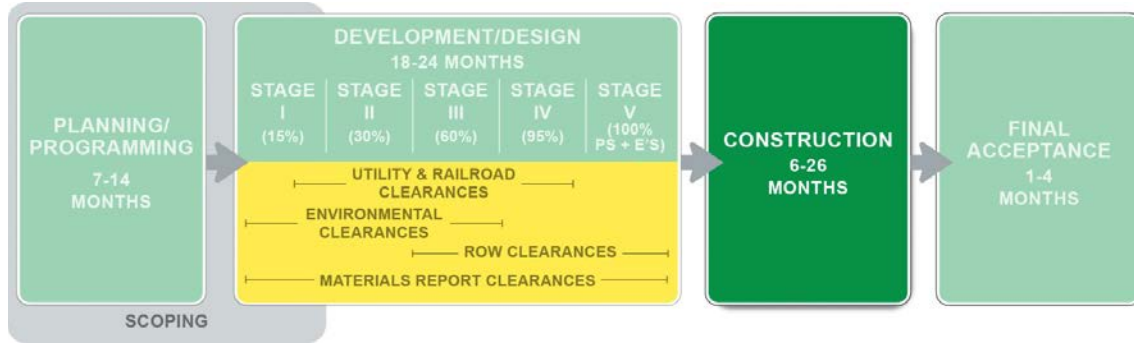


Figure 1-7 Construction in the Project Life Cycle

LPA projects receiving federal funds for construction activities must follow the procedures included in Chapter 13, Construction. For projects not using federal funds for construction, LPAs may follow their own procedures but must comply with all federal requirements and regulations if federal funds are used for any other project activities.



Other than environmental, ROW, and utility and railroad clearances provided by ADOT, LPAs are solely responsible for acquiring and complying with all required environmental permits, clearances, and mitigation measures. ADOT will monitor compliance for ADOT-administered projects throughout the project development process and will audit for compliance on self-administered and Certification Acceptance projects during final acceptance of the project.

Construction Administration

For ADOT-administered projects, ADOT will provide construction-administration services. Certified and self-administering LPAs are responsible for conducting construction-administration activities on their projects, but they must comply with all applicable state, federal, and tribal laws, regulations, and requirements. Typical construction-administration responsibilities include but are not limited to the following: approval of construction staking and surveying, review of shop drawings and contractor submittals, materials testing and certifications, daily reviews and inspections of construction activities, compliance with civil rights requirements, and ensuring that the workmanship and materials are in accordance with the approved PS&Es as well as with other documents incorporated by reference in the PS&E package. LPAs are also responsible for ensuring that independent quality assurance (QA) activities related to workmanship and materials are completed during construction. Recordkeeping and documentation must be one of the most diligently executed tasks on federally funded projects.

Inspections

Unless ADOT is administering project construction, LPAs are required to inspect ongoing construction activities and work practices and to conduct a review of past inspection findings and on-site records for corrective action as warranted. At the completion of construction activities, LPAs are responsible for initiating final acceptance by

inviting the ADOT district engineer, designer of record, and FHWA area engineer (as needed) to the final walk-through and inspection.

Final Acceptance

After construction is complete, the project work must be inspected and documentation must be reviewed to ensure that it has been completed in accordance with the approved contract documents and federal-aid requirements before the project obtains final acceptance. Final acceptance and closeout of the project involves several steps that typically take 1 to 4 months to complete (Figure 1-8).

The final acceptance and project closeout process includes compiling project closeout documentation, participating in the final walk-through and inspection, preparing a final acceptance letter, compiling the final construction package, and preparing the final voucher report.

FINAL ACCEPTANCE

- > Project close out
- > Funding reimbursement
- > Monitoring

➔ **CHAPTER 14**

For ADOT-administered projects, ADOT will conduct all final acceptance and project closeout activities. For self-administered and Certification Acceptance projects, the LPA's person in responsible charge will:

- Document construction activities and maintain project records
- Conduct inspections during and at the completion of construction activities
- Prepare and sign the final acceptance letter, and submit it to ADOT LPA Section
- Compile and review the project closeout documentation for accuracy and completeness
- Prepare the final construction package (with applicable project closeout documentation)
- Submit the final construction package to ADOT LPA Section, who will then forward the final construction package to the ADOT Final Voucher Section

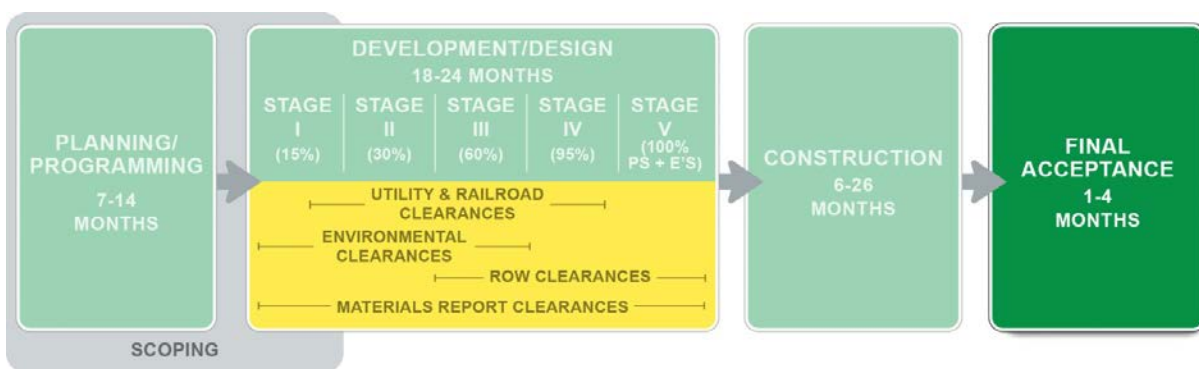


Figure 1-8 Final Acceptance in the Project Life Cycle

For all projects, the ADOT Final Voucher Section will prepare the final voucher report and submit it to FHWA for review and approval; FHWA will then send final reimbursement funds to ADOT. At that point, the project is considered final, and no further federal-aid reimbursement of project costs can be made. The project is considered to be closed out when FHWA records the final voucher payment in the FMIS. The LPA is responsible for all post-construction monitoring and maintenance.



Although partial reimbursement occurs throughout the project development process, full federal-aid reimbursement cannot be sought for ADOT-administered, self-administered, or Certification Acceptance projects until FHWA has approved that the construction is complete and final acceptance has been obtained.



The contractor is responsible for the cost and maintenance of the project until a final acceptance letter for the project is provided by the ADOT district engineer or LPA person in responsible charge. Except for circumstances outside the contractor's control, the contractor must rebuild, repair, restore, and make good on all injuries or damages to any portion of the work before final acceptance is obtained (see ADOT's *Standard Specifications for Road and Bridge Construction*). No reimbursement will be made for work required because of the LPA's failure to comply with the contract, specifications, or any environmental permits.

File Retention

Recordkeeping and documentation should be one of the most diligently executed tasks on federally funded projects. For ADOT-administered projects, the ADOT resident engineer will maintain project records. For self-administered and Certification Acceptance projects, the LPA is responsible for maintaining project records. FHWA records and manages project information using the FMIS. Project information is initially recorded in the FMIS during the federal-aid authorization process, and the project is not considered to be closed out until the final voucher payment is recorded in the FMIS.

In accordance with Arizona Revised Statutes (ARS) 35-214, LPAs are required to keep all records, as necessary to document compliance with federal requirements, for a minimum of 5 years following FHWA closeout of the project in the FMIS. These records must be available for inspection and audit by authorized representatives of ADOT and FHWA. Refer to Chapter 14, Final Acceptance, for the LPA's documentation obligations during the project closeout process, as well as for ADOT and FHWA policies and procedures regarding project auditing.

Other Essential Project Considerations

The *ADOT Local Public Agency Projects Manual* provides essential information on project administration responsibilities that do not fit within a specific project phase. LPAs should become familiar with the requirements and processes associated with these responsibilities. These other essential topics discussed in the manual occur throughout the project life cycle and are considered fundamental to the success of an LPA project.

Civil Rights

Nondiscrimination provisions apply to all federally assisted programs and activities of federal-aid recipients, subrecipients, and contractors, regardless of tier. ADOT is responsible for monitoring and ensuring compliance with the LPA's signed assurances that all programs, activities, services, and benefits are free of discrimination. Compliance with all civil rights programs is required for receipt of federal-aid funds. ADOT is committed to implementing and obtaining compliance with all civil rights programs to ensure nondiscrimination and, as a primary recipient of federal-aid funds, has the responsibility for monitoring for compliance on federally funded transportation projects. Information on ADOT's civil rights programs and the LPA's obligations can be found in Chapter 16, Civil Rights.

Financial Management/Reimbursement

ADOT reimburses the LPA for the federal share of eligible project costs as those costs are incurred, and ADOT is then reimbursed by FHWA. Following the proper invoicing and reimbursement procedures, including the steps related to LPA consultants and contractors, is critical for timely payments to the LPA and is important to the overall financial management of a federally funded project. Chapter 17, Financial Management/Reimbursement, includes the invoicing requirements, reimbursement procedures, and allowable project costs applicable to federally funded LPA projects.

Contracting, Consultant Selection, and Procurement

The selection of contractors and consultants and the procurement of materials are inherently critical to the planning and construction of an LPA project. Chapter 18, Contracting, Consultant Selection, and Procurement, outlines available contracting mechanisms, consultant and contractor qualifications, selection requirements, procurement procedures, and LPA and ADOT roles and responsibilities.

Project Administration

Through the *FHWA and ADOT Stewardship and Oversight Agreement for Arizona*, FHWA delegates varying degrees of authority to ADOT for approving project development and construction of federally funded projects. Under the agreement, ADOT will administer LPA projects that include federal funding, unless the LPA has been approved to self-administer or has been approved under the Certification Acceptance Program. The types of administration available to federally funded projects are briefly described below and further discussed in Chapter 2, ADOT-Administration; Chapter 3, Self-Administration; and Chapter 4, Certification Acceptance. When deciding whether or not to apply for self-administration or Certification Acceptance status, LPAs should consult Figure 1-9 and review the benefits and requirements for each type of project administration in the corresponding chapter in this manual.

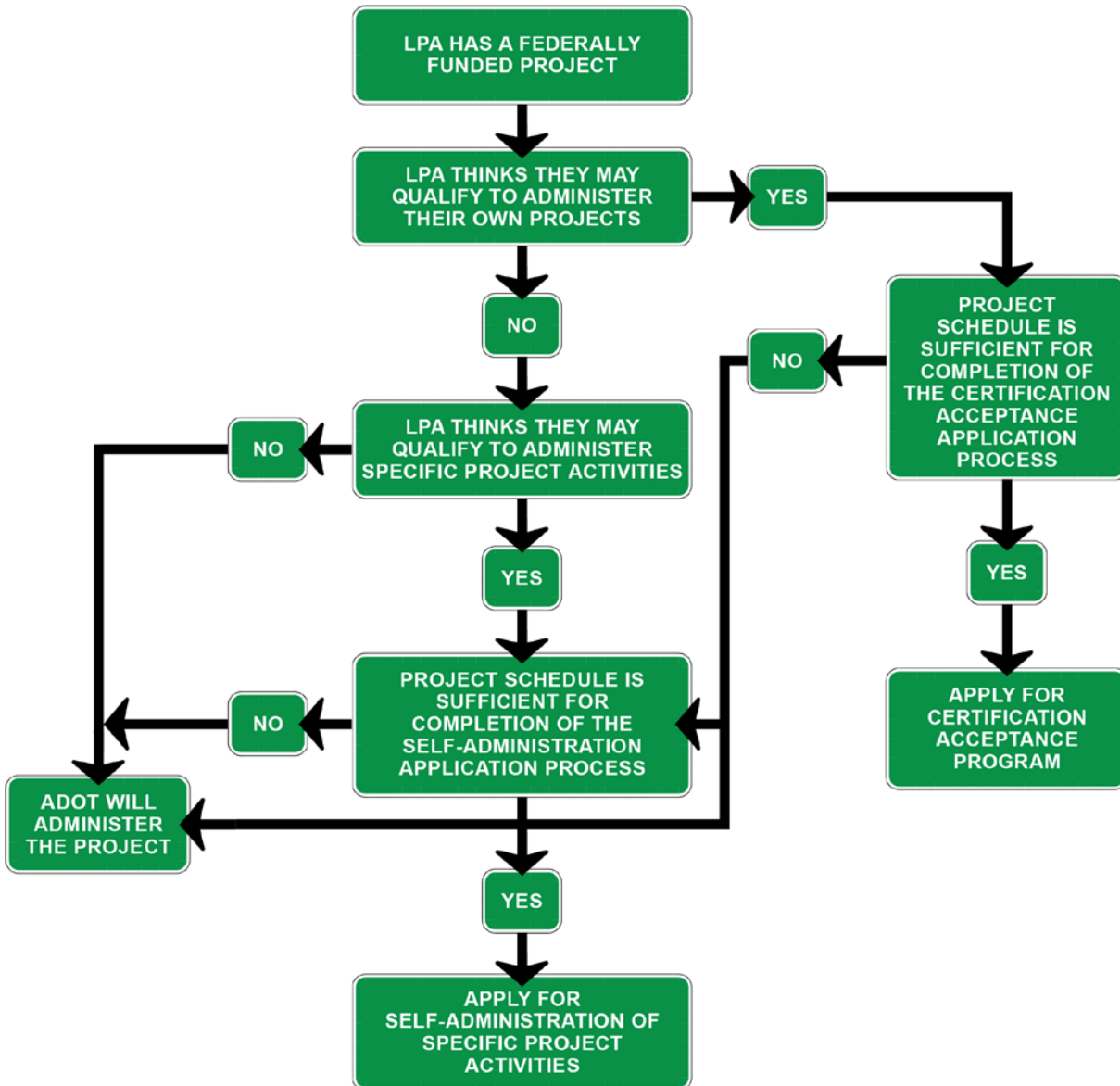


Figure 1-9 Administration Decision Diagram

ADOT Administration

For situations in which ADOT has assumed responsibility for project administration, ADOT is responsible for ensuring that LPA projects meet FHWA requirements. While federal guidelines allow ADOT to assume certain project responsibilities, FHWA is ultimately held accountable for ensuring that the FAHP is delivered consistent with established requirements. Even when a project is ADOT administered, LPAs should remain actively involved in all phases of a project in order to help keep the project on schedule and within budget (Figure 1-10).

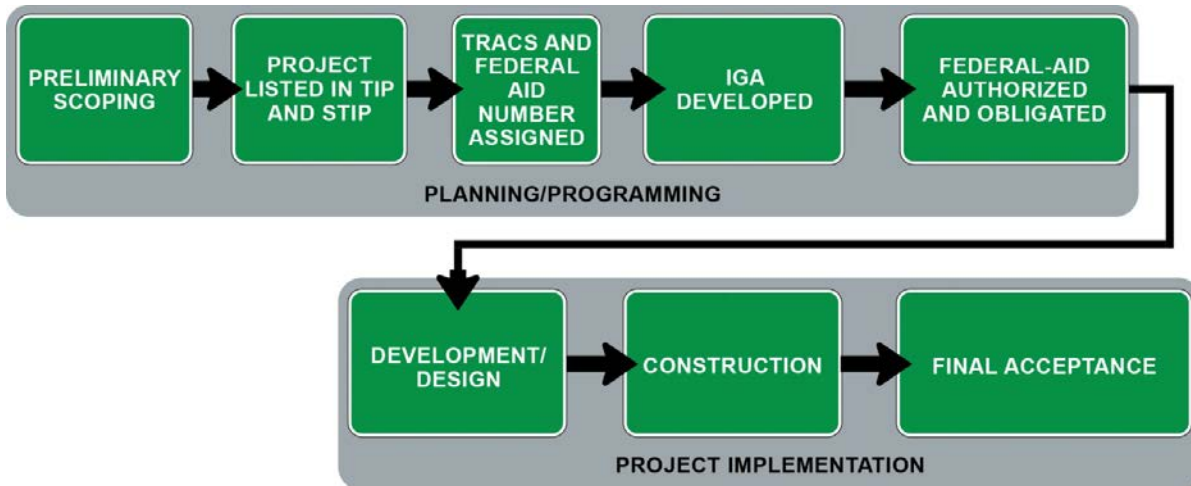


Figure 1-10 ADOT-Administration Process



ADOT requires a fee to recover ADOT’s costs for design review, bid-package preparation, and administering the development and advertisement of ADOT-administered and self-administered projects. The review fee is due at the time of project initiation (i.e., when the TRACS and federal-aid numbers are requested and assigned). ADOT also requires fees for ADOT-administered projects based on the estimated project construction cost to cover ADOT construction engineering, contingencies for potential cost overruns, and postproject activities. These fees are due before advertisement for bid.

Self-Administration

Self-administration is a process through which ADOT can authorize LPAs to administer specific project activities related to development/design and construction on a project-by-project basis, with FHWA’s concurrence. However, ADOT retains ultimate responsibility for the LPA’s compliance with all applicable state, federal, and tribal laws, regulations, and requirements.



The self-administration process is currently under review by ADOT and FHWA and will not be fully available to LPAs until the process is developed and approved by ADOT with concurrence from FHWA (see Attachment 3-2 for the ADOT bulletin regarding the current limits of self-administration). The information in this chapter is provided for informational purposes, and is the process as proposed by ADOT to FHWA. LPAs should note that some requirements or policies may change.

Before approving an LPA for self-administration, ADOT will evaluate the LPA's organization and past performance to determine whether the LPA can execute the work. The application process requires significant documentation of the LPA's prior experience and capabilities relative to LPA projects, as well as a nonrefundable review fee. The amount of review fee is currently under deliberation. The application process must be conducted for each new project that the LPA proposes to self-administer (Figure 1-11). LPAs that are considering self-administration should carefully review their qualifications and the pros and cons of self-administration before completing the application (see Chapter 3, Self-Administration, for more information on the self-administration application process).

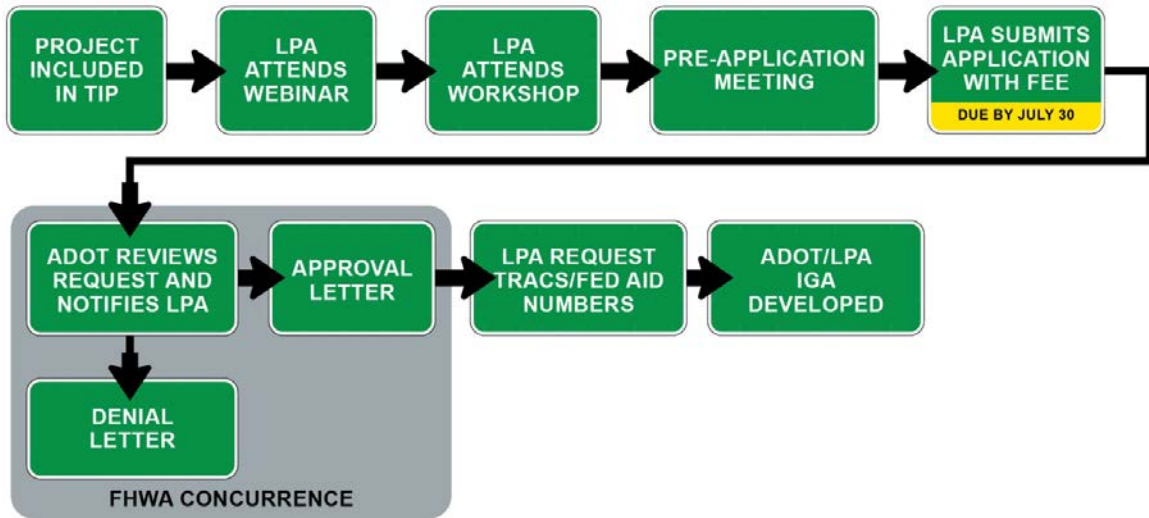


Figure 1-11 Self-Administration Application Process

Certification Acceptance

Through the Certification Acceptance Program, certified LPAs are authorized to independently manage most aspects of the project development process. The Certification Acceptance Program requires LPAs to have the capability, experience, and resources to develop and administer projects according to all applicable agency, state, federal, and tribal laws, regulations, and requirements.

LPAs approved by ADOT (with FHWA concurrence) through the Certification Acceptance Program retain a significant degree of approval authority at the local level when developing federally funded transportation projects. However, ADOT retains ultimate responsibility for the LPA's compliance with all applicable state, federal, and tribal requirements. While the Certification Acceptance Program does not eliminate any project development procedures or requirements, it may help LPAs save time and money by giving them control over the process of developing, advertising, awarding, and managing their own projects. The Certification Acceptance application process is summarized in Figure 1-12.

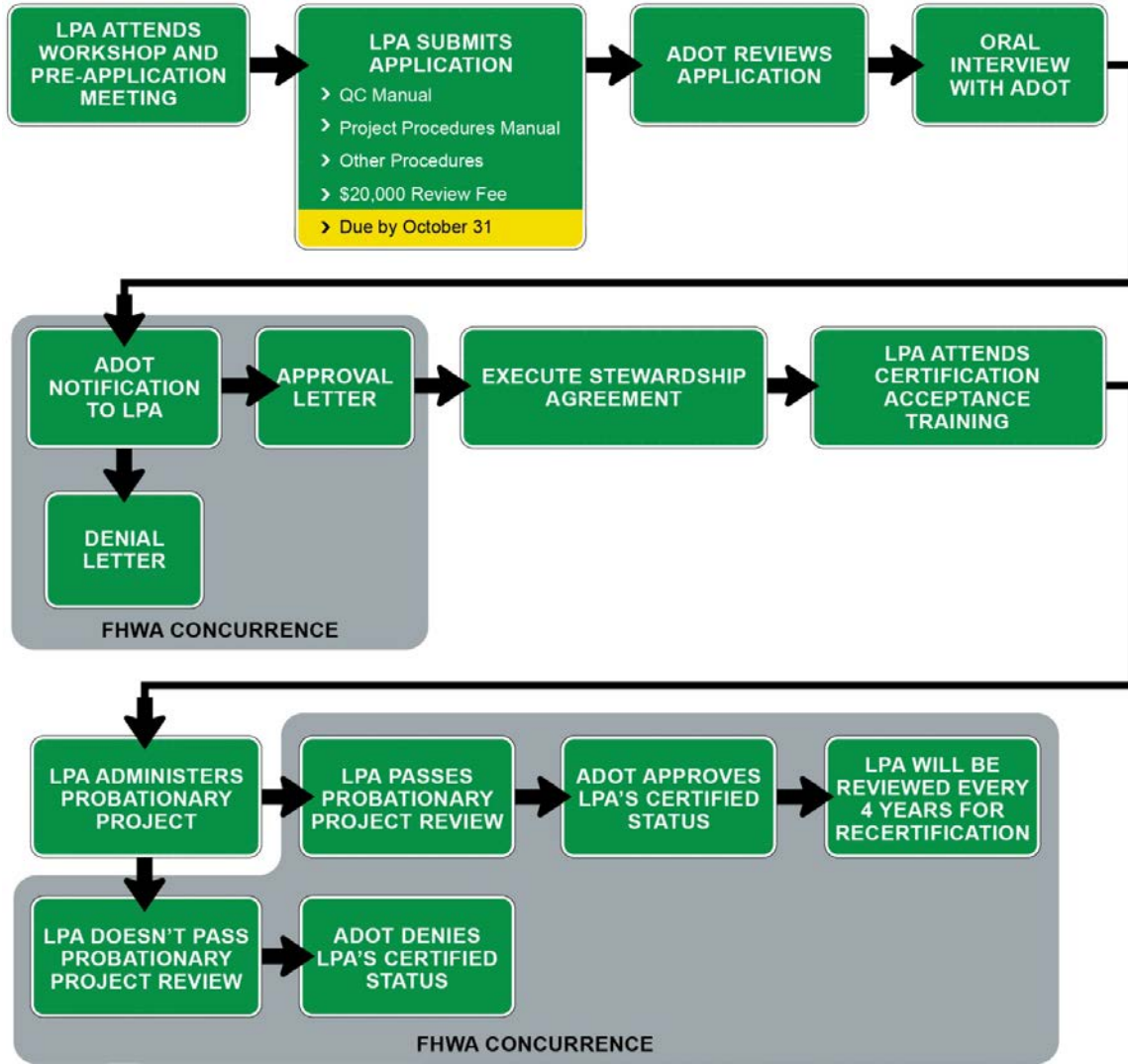


Figure 1-12 Certification Acceptance Application Process

LPAs that are considering certification should carefully review their qualifications before pursuing certification and keep in mind that certified LPAs are reevaluated every 4 years, or more frequently if ongoing issues or concerns regarding the LPA’s ability to properly administer projects are identified. ADOT conducts a thorough review of the LPA’s processes, staff qualifications, resources, experience, etc., to successfully administer the program. LPAs applying for certification under the Certification Acceptance Program must provide their LPA project procedures manual and a quality control (QC) manual as part of the application process. The Certification Acceptance application process requires a \$20,000 nonrefundable application review fee.



The Certification Acceptance application process is currently under review by ADOT and FHWA and will not be available to LPAs until the process is approved by ADOT with concurrence from FHWA. If the LPA has been previously certified under the Certification Acceptance Program, the LPA may continue to administer their projects as described in this manual; however, ADOT is not currently accepting new applications for the Certification Acceptance Program.

The information in this chapter is provided for informational purposes, and is the process as proposed by ADOT to FHWA. LPAs should note that some requirements or policies may change. LPAs should contact their ADOT project manager for the current status of the Certification Acceptance Program.

Determining Project Oversight

The *FHWA and ADOT Stewardship and Oversight Agreement for Arizona* defines roles and responsibilities of the FHWA Arizona Division and ADOT in the oversight and administration of projects funded under the FAHP. Through the agreement, FHWA delegates specific oversight roles and approval responsibilities to ADOT for certain project-level actions and authorities (i.e., design, plans, specifications, estimates, contract awards, and inspections of projects), as defined in Title 23 USC 106. ADOT will act in the relative role of FHWA for all actions and authorities delegated to them by FHWA. For all actions and authorities not delegated, FHWA maintains approval authority. FHWA is ultimately accountable for ensuring that the FAHP is delivered consistent with all applicable laws, regulations, and policies.

The federal-aid project number assigned to the project will include one of the following letters at the end of the number to denote the type of oversight authority for the project:

- S = Full Oversight LPA Project /ADOT Administered (formerly “N” and “X”)
- F = Full Oversight LPA Project /Locally Administered (formerly “N” and “X”)
- T = LPA Project / ADOT Administered (formerly “A”)
- D = LPA Project /Locally Administered (formerly “A”)
- Z = Other

On full Oversight ADOT Administered (“S”) and Full Oversight Locally Administered (“F”) LPA projects, FHWA retains full-oversight and approval authority. It should be noted that LPAs cannot administer projects that are full oversight unless they have been approved under the Certification Acceptance Program. For full-oversight projects, the LPA should coordinate with ADOT LPA Section for further guidance; ADOT will coordinate with FHWA.

For other LPA projects that are ADOT Administered (i.e., “T” projects), ADOT has been delegated oversight and approval authority by FHWA. For LPA projects that are locally administered through self-administration or Certification Acceptance (i.e., “D” projects), the LPA has been delegated oversight and approval authority by ADOT. ADOT retains some monitoring and oversight of “D” project activities, as required by law.



FHWA retains full oversight and approval authority for all projects on the NHS that involve new construction or reconstruction with total costs over \$25 million. FHWA also retains full oversight and approval authority for projects off the NHS funded under the FAHP that have total project costs exceeding \$75 million in the ADOT Phoenix District or \$25 million for projects occurring elsewhere in Arizona.

Summary

Information and guidance provided in this manual is intended to assist LPAs through the project development process for federally funded projects. LPAs are encouraged to become familiar with ADOT and FHWA policies and procedures discussed in this manual. The Resources list at the end of each chapter provides links to important policy information and procedural documents and websites to further assist LPAs in the project development process so that they can successfully deliver their projects.

LPAs are encouraged to contact ADOT LPA Section and their local MPO/COG for questions or information regarding policy and procedures covered in this manual. This manual will be periodically updated in response to modifications to ADOT and FHWA guidance and directives. It is recommended that LPAs check the LPA Section website for the most recent version of the manual.

CHAPTER 2

ADOT Administration



Introduction

As outlined in the *FHWA and ADOT Stewardship and Oversight Agreement for Arizona*, FHWA has delegated authority to ADOT for administering projects funded under the FAHP. This chapter has been developed to help LPAs understand the federal-aid project development process as administered by ADOT. ADOT will administer LPA projects that receive federal funding—unless the LPA has been approved to self-administer, as outlined in Chapter 3, Self-Administration, or has been approved under the Certification Acceptance Program, as outlined in Chapter 4, Certification Acceptance. The ADOT-administration process is briefly outlined in Figure 2-1.

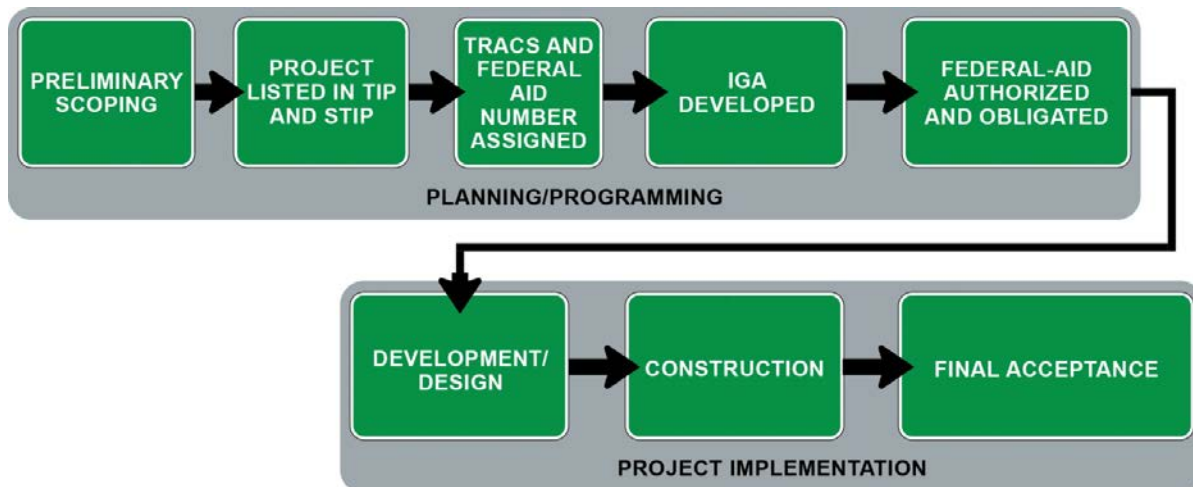


Figure 2-1 ADOT-Administration Process

Initiating an LPA Project with ADOT

LPAs must initiate projects with their MPO/COG through inclusion in a TIP before initiating project activities with ADOT. To initiate a project with ADOT, LPAs must request a TRACS number and federal-aid number from the assigned ADOT project manager by sending a letter that provides key information about the project, including the following:

- Project name and limits
- Project location, length, and functional classification of the proposed or existing roadway
- Project scope
- Current year of expenditure cost estimate of the project
- Amount of federal funds being requested for development/design, ROW, and construction activities, and which fiscal year the funds will be used
- Anticipated construction bid-advertisement date
- An attachment of an excerpt from the currently adopted TIP of the MPO/COG to which the LPA belongs (this should indicate that the project has been determined eligible for FAHP funding)
- Contact information for the person in responsible charge (see Chapter 3, Self-Administration, for a full definition of this role)
- Submittal of review fee

See Attachment 2-1 for a sample project initiation letter to request a TRACS number and federal-aid number. Once the TRACS number has been assigned, the ADOT project manager will initiate development of an IGA. IGAs are discussed in more detail in the Intergovernmental Agreements section of this chapter. Approximately 2 weeks are required for project numbers to be assigned and provided to the LPA. After the IGA has been executed, the ADOT project manager will request federal-aid authorization from FHWA. It is recommended that LPAs submit all authorization request paperwork to their ADOT project manager by June 1 for processing. ADOT and FHWA need sufficient time to authorize by June 30 and obligate federal-aid funding before their September 15 deadline.



Even when a project is ADOT administered, LPAs should remain actively involved in all phases to help keep the project on schedule and within budget by:

- Participating in project partnering meetings
- Attending monthly design project meetings and weekly construction meetings, as appropriate
- Reviewing project schedule and costs to ensure that the project stays within scope and on budget
- Notifying the ADOT project manager if changes in the project are desired
- Approving change orders during construction, as needed
- Participating in the final walk-through

ADOT Design Review Costs

LPAs will be assessed a fee to recover ADOT's costs for design review and bid-package preparation while administering the development and advertisement of ADOT-administered LPA projects. The amount of the fee is

currently under deliberation. The review fee is due at the time of project initiation (i.e., when the TRACS and federal-aid numbers are requested and assigned), and is not eligible for federal reimbursement.

ADOT Construction Administration Costs

ADOT also requires the following fees based on the final project construction cost estimate to be included in all projects:

- 15% for construction engineering (i.e., construction administration) to cover ADOT administration costs during the construction phase of the project.
- 5% for construction contingency to account for potential cost overruns.
- 1% for consultant services to cover the postproject fee for postdesign activities.

The 15% construction engineering fee (i.e., construction administration fee), 5% construction contingency, and 1% consultant services postproject fee for postdesign activities are due before advertisement for bid. These costs are eligible for federal reimbursement at the pro rata rate for the program in which the project is funded. Unused local matching funds can be refunded by ADOT. Refer to Table 2-1 for a summary of estimated costs for ADOT to administer LPA projects.

Table 2-1 Estimated Costs for ADOT to Administer LPA Projects

Fee Purpose	Fee Requirement	Due Date
ADOT design and bid-package review costs	To be determined	Project initiation (when the ADOT TRACS and federal-aid numbers are requested and assigned)
ADOT construction-administration costs	15% of the final project construction estimate	Before advertisement for bid
Potential construction change orders	5% construction contingency (minimum)	Before advertisement for bid
ADOT postproject fee for postdesign activities	1% of the final project construction estimate	Before advertisement for bid

Benefits of ADOT Administration

Benefits of ADOT administration include but are not limited to the following:

- Ensures compliance with all applicable state, federal, and tribal laws, regulations, and requirements
- Does not require experience with ADOT and FHWA policies and procedures, although knowledge of the basic requirements (as provided in this manual) is needed
- Provides assistance with FAHP procedures
- Allows for less experienced LPAs to deliver projects successfully
- Provides assistance in managing project schedule and budget
- Provides assistance with scoping the project
- Requires fewer upfront financial resources as compared to self-administered or Certification Acceptance projects

- ▶ Ensures that the project follows proper QC procedures and is in compliance with applicable quality standards
- ▶ Reduces time needed to secure consultant/contractor services or materials by using the ADOT Engineering Consultants Services Section (ECS) on-call list of consultants (refer to Chapter 18, Contracting, Consultant Selection, and Procurement, for more information about the on-call list of consultants)
- ▶ Does not involve an additional nonrefundable application review fee, as is required for Certification Acceptance
- ▶ Does not require the submittal of significant documentation of the LPA's prior experience and capabilities, as is required for self-administration or Certification Acceptance
- ▶ Does not require that the LPA have sufficient qualified staff with the appropriate credentials and registrations to administer project activities, including a qualified professional as its person in responsible charge
- ▶ Does not require that the LPA have adequate resources, including equipment, to successfully complete project activities

Intergovernmental Agreements

An IGA is required for all ADOT-administered projects that are federally funded. IGAs are legally binding documents that define the obligations of all parties involved in a project. IGA development provides an opportunity for collaboration and coordination between ADOT and LPAs. The IGA outlines LPA and ADOT roles and responsibilities, project financing based on the cost estimate developed during programming and scoping, and the estimated costs for ADOT to administer or review the project. See Attachment 2-2 for a sample executed IGA.

Initiating an Intergovernmental Agreement

The IGA development process is initiated by the ADOT project manager once the project is listed in the STIP and has been assigned a TRACS number. The IGA must be fully executed before federal funding authorization is obtained and is required for reimbursement of federal funds after FHWA's FMIS effective date. The ADOT project manager will gather project details from the LPA and provide them to ADOT's Joint Project Administration Branch, which will draft the IGA. After an internal ADOT review, the draft IGA will be forwarded to the LPA for review. This is a highly interactive process that can be time consuming. The LPA must be aware of the schedule of its board of supervisors, municipal council, or other approving authority to ensure that the IGA is on the schedule for approval within the required time frame. Once approved by the LPA's approving authority, the IGA must then be approved by ADOT.



IGA development can begin as soon as the TRACS number has been assigned and must be completed before federal funding can be authorized. Any work on the project that was performed before federal funding authorization is not eligible for reimbursement.



Executed agreements (e.g., IGAs) are available for review on ADOT's Joint Project Administration Branch website. The Joint Project Administration Branch also offers an instructional PowerPoint presentation on how to develop joint project agreements (JPAs), which can also be used to develop IGAs, since JPAs are essentially the same as IGAs. JPAs carry the same statutory requirements as IGAs, but they generally differ in that IGAs are agreements between public entities and JPAs are agreements between ADOT and the private sector. See the Resources list at the end of this chapter for links to the Joint Project Administration Branch resources, including instructional documents and templates.



LPAs should allow up to 6 months for development and execution of the IGA. The IGA process should begin before, or as early as possible in, the federal fiscal year (October 1 to September 30) to ensure that funding can be authorized in a timely manner.

How to Develop and Execute an Intergovernmental Agreement

IGAs must be in place before funds are authorized and obligated for LPA project activities (i.e., development/design, ROW, or construction activities). By executing the IGA, the LPA is guaranteeing that it will provide local matching funds for the project and will pay all project costs over the amount of authorized federal funding. The funding identified in the IGA represents the maximum amount of federal funds that may be authorized for the project. It is possible that the federal-aid funding amount identified in the IGA will not be approved by FHWA. In that case, the LPA will also be responsible for financing the unfunded portion of the project costs. See Chapter 6, Planning/Programming, for more information on project funding.



Every effort should be made to identify any necessary project changes in schedule, cost, or scope as early as possible in the IGA development process. The IGA must be amended whenever significant changes occur to the scope and budget of the project, as well as when changes in key staff or project schedule occur. If the federal-aid funding amount specified in the IGA is not approved by FHWA, the LPA will be responsible for financing the unfunded portion of the project costs.



The LPA must submit payment of the local matching funds to ADOT within 30 days of execution of the IGA.

An IGA should contain the following elements, as appropriate:

- ▶ Purpose of the agreement
- ▶ TRACS number
- ▶ Funding, including the amount, source, and year of expenditure
- ▶ Roles and responsibilities for each phase of the project
- ▶ Estimated project costs (including ADOT administration costs), which should be as accurate as possible because they are directly linked to the amount of federal funding that can be authorized for the project
- ▶ Project contacts and team members
- ▶ Project location noting NHS designation, if applicable
- ▶ Project schedule
- ▶ Project scope
- ▶ Term of the agreement, including specific beginning and ending dates, if applicable
- ▶ Total cost of the agreement to each agency party, including payment terms, if any
- ▶ Schedule identifying when federal funds will be obligated
- ▶ Methods to be employed to terminate the agreement
- ▶ Any other necessary or proper terms or provisions
- ▶ Funding and cost responsibilities for planning, project development, ROW acquisition, utility and railroad needs, construction, and maintenance
- ▶ Long-term maintenance responsibilities of a facility, such as traffic signals or landscaping
- ▶ Access to ROWs belonging to other agencies, temporary or permanent street closures, and approval for required grade changes
- ▶ Jurisdictional transfers (also known as “turnbacks”) of roadway from one agency to another, or roadway abandonment
- ▶ Required permits and mitigation measures
- ▶ Specific criteria for local land use
- ▶ Access management specifications



In July 2011, ADOT introduced new IGA provisions for completing projects funded through the FAHP (see Attachment 2-3). Additional provisions specify timelines for deobligation of federal funds following project closeout. See Chapter 6, Planning/Programming, and Chapter 17, Financial Management/Reimbursement, for additional information on the obligation and deobligation of federal funds.

Roles and Responsibilities

Roles and responsibilities during initiation and development of ADOT-administered projects are outlined in Table 2-2.

Table 2-2 Roles and Responsibilities for ADOT-Administered Projects

Task	LPA	ADOT	FHWA
TRACS number and federal-aid number	Submit request	Assign TRACS and corresponding federal-aid number	N/A
IGA development and execution	Coordinate and sign	Coordinate, prepare, and sign	N/A
Federal-aid authorization	Submit request to ADOT	Assess for eligibility and submit request to FHWA	Review and authorize funds
Project administration	Actively participate	Administer project	Provide oversight for federal requirements

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RESOURCES

ADOT Joint Project Administration Website

<http://www.azdot.gov/business/programs-and-partnerships/JointProjectAdministration/overview>

ADOT Joint Project Agreement (JPA) Instructional Guide

<http://www.azdot.gov/docs/business/joint-project-administration---joint-project-agreement-instructional-tutorial.pdf?sfvrsn=0>

Executed JPA Search Engine (includes scanned copies of JPAs)

<http://www.azdot.gov/applications/ecms/JPASearch.aspx>

FHWA and ADOT Stewardship and Oversight Agreement for Arizona

<http://www.fhwa.dot.gov/federalaid/stewardship/agreements/az.cfm>

<http://www.azdot.gov/business/engineering-and-construction/traffic/traffic-safety/stewardship-and-oversight-agreement-for-arizona>

What is Joint Project Administration?

<http://www.azdot.gov/business/programs-and-partnerships/JointProjectAdministration/overview>

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ATTACHMENT 2-1: SAMPLE PROJECT INITIATION LETTER

INSERT DATE

Mr. John Dickson, PE
Local Government Section Manager
Arizona Department of Transportation
1615 W Jackson St, MD EM11
Phoenix, AZ 85007

RE: INSERT PROJECT NAME AND LIMITS

Dear Mr. Dickson:

On behalf of the (LOCAL PUBLIC AGENCY NAME), I am writing to request initiation of the project development process and assignment of a federal project number and ADOT TRACS number for a project titled (PROJECT NAME AND LIMITS). (LOCAL PUBLIC AGENCY NAME) also intends to use federal funds for project design and clearances, and hereby requests:

the assignment of an ADOT on-call consultant to assist with these tasks.

OR

independent local public agency consultant selection utilizing the ADOT procurement procedures available through the ADOT Engineering Consultant Services.

This project is located in (CITY/TOWN), (COUNTY), Arizona. The project extends along (NAME OF STREET WHERE PROJECT OCCURS) for a distance of approximately _____ miles. This facility is currently assigned the functional classification of (FEDERAL FUNCTIONAL CLASSIFICATION). The project consists of (PROJECT SCOPE). The current cost estimate for the project, including construction engineering and administration, is \$ _____.

Attached please find an excerpt from the currently adopted (COG NAME) Transportation Improvement Program indicating that the project has been approved for (NAME OF FUNDING SOURCE) funds in the amount of \$ _____ for design in FY _____ and, \$ _____ for construction in FY _____. The anticipated construction bid advertisement date is _____.

If you need additional information regarding this project, please contact me at (PHONE NUMBER). Thank you for your assistance.

Sincerely,

Attachment: Excerpt from (COG NAME) TIP

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ATTACHMENT 2-2: SAMPLE EXECUTED INTERGOVERNMENTAL AGREEMENT

ADOT File No.: IGA/JPA 10-0831
AG Contract No.: P0012010002700
COG/MPOTIP Item No. YYV-0(201) A
Project: Pioneer Parkway
Section:
TRACS No.: SS 91001C
Budget Source Item No.: N/A

INTERGOVERNMENTAL AGREEMENT

BETWEEN
THE STATE OF ARIZONA
AND
THE YAVAPAI COUNTY

THIS AGREEMENT is entered into this date August 31, 2010, pursuant to the Arizona Revised Statutes § 11-951 through 11-954, as amended, between the STATE OF ARIZONA, acting by and through its DEPARTMENT OF TRANSPORTATION (the "State"), and the YAVAPAI COUNTY, acting by and through its CHAIRPERSON and BOARD OF SUPERVISORS the ("County"). The State and the County are collectively referred to as "Parties".

I. RECITALS

1. The State is empowered by Arizona Revised Statutes § 28-401 to enter into this Agreement and has delegated to the undersigned the authority to execute this Agreement on behalf of the State.
 2. The County is empowered by Arizona Revised Statutes § 11-251 to enter into this Agreement and has by resolution, a copy of which is attached hereto and made a part hereof, resolved to enter into this Agreement and has authorized the undersigned to execute this Agreement on behalf of the County.
 3. Congress has authorized appropriations for, but not limited, the construction of streets and primary, feeder and farm-to-market roads; the replacement of bridges; the elimination of roadside obstacles; and the application of pavement markings.
 4. Such project lies within the boundary of the County and has been selected by the County, the survey of the project has been completed; and the plans, estimates and specifications will be prepared and, as required, submitted to the State and Federal Highway Administration (FHWA) for its approval.
 5. The County in order to obtain Federal funds for the construction of the project, is willing to provide County funds to match Federal funds in the ratio required or as finally fixed and determined by FHWA, including actual construction engineering and administration costs (CE).
 6. The interest of the State in this project is the acquisition of Federal funds for the use and benefit of the County and to authorize such Federal funds for the project pursuant to Federal law and regulations. The State shall be the designated agent for the County.
-

7. The work contemplated under this Agreement is for the construction for the mill and fill rehabilitation plan for the four lane parkway, hereinafter referred to as the "Project". The Project will run 2.2 miles and also consist of center median, and drainage system improvements. The State shall advertise, bid and award the Project. The estimated construction costs are as follows:

8. The Central Yavapai Metropolitan Planning Organization (CYMPO) and the Northern Arizona Council of Governments (NACOG), in order to obtain Federal funds for the construction of the project, are each contributing Federal Surface Transportation Program (STP) apportionments and obligation authority as finally fixed and determined by FHWA, including actual construction engineering and administration costs (CE).

TRACS No. SS 91001C

*Estimated Project Costs		\$3,500,000.00
Federal Aid Funds @ 94.3% (capped)		\$2,516,000.00
Estimated CYMPO Funds	\$1,266,000.00	
Estimated NACOG Funds	\$1,250,000.00	
County Funds @ 5.7%	\$ 984,000.00	
Estimated County Funds @ 100%		<u>\$ 984,000.00</u>
*Total Estimated Project Funds		\$3,500,000.00
*(Includes 15% CE and 5% project contingencies)		

The Parties acknowledge that the eventual actual cost may exceed the estimate and in such case the County is responsible for any and all costs exceeding the estimate. Actual costs may be less than the estimate and not needed for the Project, under which circumstance excess funding apportionments or obligation authority will be de-obligated from the Project and returned to the parties in an amount equal to their respective proportionate share of the total Project.

THEREFORE, in consideration of the mutual Agreements expressed herein, it is agreed as follows:

II. SCOPE OF WORK

1. The State will:

a. Submit a program to the Federal Highway Administration (FHWA) containing the above-mentioned Project with the recommendation that it be approved for construction and funding. The Project will be performed, completed, accepted and paid for in accordance with the requirements of the Project Plans.

b. Upon approval by FHWA, and with the aid and consent of the Parties and the FHWA, the State shall proceed to advertise for, receive and open bids subject to the concurrence of the FHWA and the Parties, to whom the award is made for and enter into a contract(s) with a firms(s) for the construction of the project.

c. Enter into a Project Agreement with FHWA on behalf of the Parties covering the work encompassed in said construction contract and will request the maximum Federal Funds available, including construction engineering and administration costs. Should costs exceed the maximum Federal funds available, it is understood and agreed that the Parties will be responsible for any overage.

d. Upon execution of this Agreement, prior to advertisement and before any work is undertaken, invoice the County for the County's estimated share of the Project, currently estimated at **\$984,000.00**. Once the Project costs have been finalized, the State will either invoice or reimburse the County for the difference between estimated and actual costs.

e. Upon execution of this Agreement, deduct obligation authority and apportionments from CYMPO's local allocation of federal Surface Transportation Program (STP) funding in an amount not to exceed **\$1,266,000.00** for the construction of the Project. The deduction shall be reflected on a future CYMPO STP quarterly ledger.

f. Upon execution of their Agreement, deduct obligation authority and apportionments from NACOG's local allocation of federal Surface Transportation Program (STP) funding in an amount not to exceed **\$1,250,000.00** for the construction of the Project. The deduction shall be reflected on a future NACOG STP quarterly ledger.

g. Not be obligated to maintain said Project, should the County fail to budget or provide for proper and perpetual maintenance as set forth in this Agreement.

2. The County will:

a. Upon execution of this Agreement designate the State as authorized agent for the County

b. Upon execution, prior to advertising the execution of any work and within 30 days of receipt of invoice, deposit funds with the State in the an amount equal to the difference between the total cost of the work provided for in this Agreement and the amount of Federal Aid (capped) received, currently estimated at **\$984,000.00**.

c. Be entirely responsible for all costs incurred in performing and accomplishing the work as set forth in this Agreement whether covered by Federal funding or not.

d. Provide for cost and, as an annual item in the County's budget, proper maintenance of the Project including all of the Project components, conditioned upon the availability of funds being appropriated or allocated for the pavement of said obligations.

e. Provide a set of as-built plans upon completion of the construction phase of the Project. An electronic version of the as-built plans shall be forwarded to Arizona Department of Transportation Local Government Section.

f. Upon completion of the Project, agree to accept and assume full responsibility of said Project in writing.

III. MISCELLANEOUS PROVISIONS

1. The terms, conditions and provisions of this Agreement shall remain in full force and effect until completion of said project and related deposits or reimbursement, except any provisions for maintenance shall be perpetual, unless assumed by another competent entity. Further, this Agreement may be cancelled at any time prior to the award of the project construction contract, upon thirty days (30) written notice to the other party. It is understood and agreed that, in the event the County terminates this Agreement, the State shall in no way be obligated to maintain said Project.

2. The State assumes no financial obligation or liability under this Agreement, or for any resulting construction Project. The County in regard to the Parties relationship with the State only, assumes full responsibility for the design, plans, specifications, reports, the engineering in connection therewith and the construction of the improvements contemplated, cost over-runs and construction claims. It is understood and agreed that the State's participation is confined to securing Federal aid on behalf of the Parties; that any damages arising from carrying out, in any respect, the terms of this Agreement or any modification thereof shall be solely the liability of the Parties and that to the extent permitted by law, the Parties hereby agree to save and hold harmless, defend, and indemnify from loss the State, any of its

departments, agencies, officers or employees from any and all costs and/or damage incurred by any of the above and from any other damage to any person or property whatsoever, which is caused by any activity, condition, misrepresentation, directives, instruction or event arising out of the performance or non performance of any provisions of this Agreement by the State, any of its departments, agencies, officers and employees, or its independent contractors, the Parties any of its agents, officers and employees, or its independent contractors. Costs incurred by the State, any of its departments, agencies, officers or employees shall include in the event of any action, court costs, and expenses of litigation and attorneys' fees.

3. The cost of construction and construction engineering work covered by this Agreement is to be borne by FHWA and the Parties, each in the proportion prescribed or as fixed and determined by FHWA as stipulated in this Agreement. Therefore, the Parties agree to furnish and provide the difference between the total cost of the work provided for in this Agreement and the amount of Federal Aid received.

4. The cost of the Project under this Agreement includes applicable indirect costs approved by the Federal Highway Administration (FHWA).

5. This Agreement shall become effective upon signing and dating of the Determination Letter by the State's Attorney General.

6. This Agreement may be cancelled in accordance with Arizona Revised Statutes § 38-511.

7. To the extent applicable under law, the provisions set forth in Arizona Revised Statutes § 35-214 and § 35-215 shall apply to this Agreement.

8. This Agreement is subject to all applicable provisions of the Americans with Disabilities Act (Public Law 101-336, 42 U.S.C. 12101-12213) and all applicable Federal regulations under the Act, including 28 CFR Parts 35 and 36. The parties to this Agreement shall comply with Executive Order Number 99-4 issued by the Governor of the State of Arizona and incorporated herein by reference regarding "Non-Discrimination".

9. Non-Availability of Funds: Every payment obligation of the State under this Agreement is conditioned upon the availability of funds appropriated or allocated for the payment of such obligations. If funds are not allocated and available for the continuance of this Agreement, this Agreement may be terminated by the State at the end of the period for which the funds are available. No liability shall accrue to the State in the event this provision is exercised, and the State shall not be obligated or liable for any future payments as a result of termination under this paragraph.

10. In the event of any controversy, which may arise out of this Agreement, the parties hereto agree to abide by required arbitration as is set forth for public works contracts in Arizona Revised Statutes § 12-1518.

11. All notices or demands upon any party to this Agreement shall be in writing and shall be delivered in person or sent by mail, addressed as follows:

Arizona Department of Transportation
 Joint Project Administration
 205 S. 17th Avenue, Mail Drop 637E
 Phoenix, Arizona 85007
 (602) 712-7124
 (602) 712-3132 Fax

**Yavapai County – Public Works
 Department**
 Attn: Phil Bourdon, County Engineer
 1100 Commerce Drive
 Prescott, Arizona 86305
 (928) 771-3183
 (328) 771-3167 Fax

12. Compliance requirements for Arizona Revised Statutes § 41-4401—immigration laws and E-Verify requirement:

a. The Parties warrant compliance with all Federal immigration laws and regulations relating to employees and warrants its compliance with Section A.R.S. 23-214, Subsection A.

b. A breach of a warranty regarding compliance with immigration laws and regulations shall be deemed a material breach of the contract, and the Parties may be subject to penalties up to and including termination of the Agreement.

c. The State retains the legal right to inspect the papers of any employee who works on the Project to ensure that the Parties or subcontractor is complying with the warranty under paragraph (a).

13. Pursuant to A.R.S. Sections 35-391.06 and 35-393.06, each Party certifies that it does not have a scrutinized business operation in Sudan or Iran. For the purpose of this Section the term "scrutinized business operations" shall have the meanings set forth in A.R.S. Section 35-391 or and 35-393, as applicable. If any Party determines that another Party submitted a false certification, that Party may impose remedies as provided by law including terminating this Agreement.

14. In accordance with Arizona Revised Statutes § 11-952 (D) attached hereto and incorporated herein is the written determination of each party's legal counsel and that the parties are authorized under the laws of this State to enter into this Agreement and that the Agreement is in proper form.

IN WITNESS WHEREOF, the Parties have executed this Agreement the day and year first above written.

YAVAPAI COUNTY

STATE OF ARIZONA

Department of Transportation

By 
A.G. CHIP DAVIS
Chairman Board of Supervisors

By 
SAM MAROUFKHANI, P.E.
Deputy State Engineer, Development

ATTEST:

By 
JULIE AYERS
Clerk of the Board

JPA 10-083

ATTORNEY APPROVAL FORM FOR THE YAVAPAI COUNTY

I have reviewed the above referenced Intergovernmental Agreement between the State of Arizona, acting by and through its DEPARTMENT OF TRANSPORTATION, and the YAVAPAI COUNTY, an Agreement among public agencies which, has been reviewed pursuant to A.R.S. § 11-951 through § 11-954 and declare this Agreement to be in proper form and within the powers and authority granted to the County under the laws of the State of Arizona.

No opinion is expressed as to the authority of the State to enter into this Agreement.

DATED this 2nd day of August, 2010



County Attorney

CERTIFIED COPY OF ENTRY IN OFFICIAL MINUTES OF THE YAVAPAI COUNTY BOARD OF SUPERVISORS

YAVAPAI COUNTY)
) ss.
ARIZONA)

Julie Ayers, having been first duly sworn, deposes and says:

I am the duly appointed, qualified and acting Clerk of the Yavapai County Board of Supervisors and in such capacity under the provisions of ARS §11-241 am charged with the responsibilities, among others, of recording all proceedings of the Board and maintaining custody of such records of the Board as are required by law to be maintained.

Set forth below is a copy of an entry in the aforesaid minute book of which, as aforesaid, I am the officer having the legal custody. This is my certificate under the provisions of Rule 44(A), Rules of Civil Procedure, and the Uniform Business Records Act, that the said copy is a true and correct copy thereof, to which I attest by my signature subscribed hereunto:

Date of meeting of which the minutes are a record: August 2, 2010.

The entry in the said minutes:

CONSENT AGENDA Upon a motion by Supervisor Thurman, seconded by Supervisor Springer, the Board voted unanimously to approve all items appearing on the Consent Agenda with the exception of C. 11, 15, 26 and 28.

26. Public Works - Request approval to enter into an Intergovernmental Agreement with the Arizona Department of Transportation for the Mill and Fill rehabilitation project on Pioneer Parkway (JPA#100831) at an amount currently estimated at \$984,000.00. (Prescott Area) District 1.

Julie Ayers
Julie Ayers, Clerk

SUBSCRIBED AND SWORN to before me August 16, 2010.

My Commission Expires:

Carolyn Dicus
Notary Public



<p>TERRY GODDARD Attorney General</p>	 <p>OFFICE OF THE ATTORNEY GENERAL STATE OF ARIZONA</p>	<p>CIVIL DIVISION TRANSPORTATION SECTION Writer's Direct Line: 602.542.8855 Facsimile: 602.542.3646 E-mail: Susan.Davis@azag.gov</p>
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INTERGOVERNMENTAL AGREEMENT
DETERMINATION

A.G. Contract No. P0012010002700 (**IGA/JPA 10-083-I**), an Agreement between public agencies, i.e., The State of Arizona and The Yavapai County, has been reviewed pursuant to A.R.S. § 11-952, as amended, by the Undersigned Assistant Attorney General who has determined that it is in the proper form and is within the powers and authority granted to the State of Arizona.

No opinion is expressed as to the authority of the remaining Parties, other than the State or its agencies, to enter into said Agreement.

DATED: August 31, 2010

TERRY GODDARD
Attorney General


SUSAN E. DAVIS
Assistant Attorney General
Transportation Section

SED:ln:#1019946
Attachment

ATTACHMENT 2-3: IGA PROVISIONS REGARDING PROJECT COMPLETION AND OBLIGATION/DEOBLIGATION

Provisions regarding project completion and obligation/deobligation of federal funds which should be included in IGAs:

All or part of the Project contemplated under this Agreement is funded with Federal Aid Highway Program funding. In addition to complying with all applicable federal laws and regulations regarding the use of the funds, the City/Town/County/etc. agrees to abide by the following timelines related to the use of this funding.

1. If applicable, within nine (9) months of the date of initial federal funds authorization for design:
 - Advertise the project using Federal Procurement Procedures;
 - Award and enter into a contract(s) with a firm(s) for the design of the Project, as applicable; and
 - Begin designing the Project.
2. If applicable, within nine (9) months of the date of initial federal funds authorization for construction:
 - Advertise the project using Federal Procurement Procedures;
 - Award and enter into a contract(s) with a firm(s) for the construction of the Project, as applicable; and
 - Begin construction on the Project.
3. Notify the State of the total, final contract amount within thirty (30) days of the award of either a design or construction contract. The State will deobligate any federal funds authorized for that phase of the Project which are in excess of the final contract amount.
4. Invoice the State for reimbursement of eligible, incurred Project costs at least once every ninety (90) days throughout the Project, or within thirty (30) days of payment to a contractor or consultant. Provide all necessary backup documentation with said invoice. Costs incurred prior to the date of federal funds authorization are not eligible for reimbursement. Total invoiced costs may not exceed \$ _____, the amount of Federal funds programmed for the Project.
5. Notify the State in writing within sixty (60) days of completion of design or construction of the Project. The State will deobligate any remaining federal funds from the Project.

Federal funding is subject to deobligation and removal from the Project twelve (12) months after the date of initial authorization unless the deadlines in this subsection are met, or sufficient justification regarding the delay and the expected construction start date are provided to the State and FHWA in writing.

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CHAPTER 3

Self-Administration

Introduction

Self-administration is a process through which ADOT can permit LPAs to administer specific project activities on a project-by-project basis, with FHWA's concurrence. Through the *FHWA and ADOT Stewardship and Oversight Agreement for Arizona*, FHWA has delegated the authority to ADOT to administer projects funded under the FAHP. Title 23 Code of Federal Regulations (CFR) Sections 1.11 and 635.105 allow ADOT to further delegate this authority to qualified LPAs, but ADOT retains ultimate responsibility for monitoring and overseeing the LPA's compliance with all applicable state, federal, and tribal laws, regulations, and requirements.



The self-administration process is currently under review by ADOT and FHWA and will not be fully available to LPAs until the process is developed and approved by ADOT with concurrence from FHWA (see Attachment 3-2 for the ADOT bulletin regarding the current limits of self-administration). The information in this chapter is provided for informational purposes, and is the process as proposed by ADOT to FHWA. LPAs should note that some requirements or policies may change.

Under self-administration, LPAs are only authorized to administer selected activities related to development/design or construction of a specific project (see Table 3-1 for a list of potentially eligible activities) and must apply for self-administration on a project-by-project basis. Figure 3-1 shows an overview of the self-administration application process.



Authorization to self-administer project activities is granted on a project-by-project basis; that is, authorization for selected activities for one project does not guarantee that authorization will be granted for all eligible project activities for that project or for any or all activities for future LPA projects.

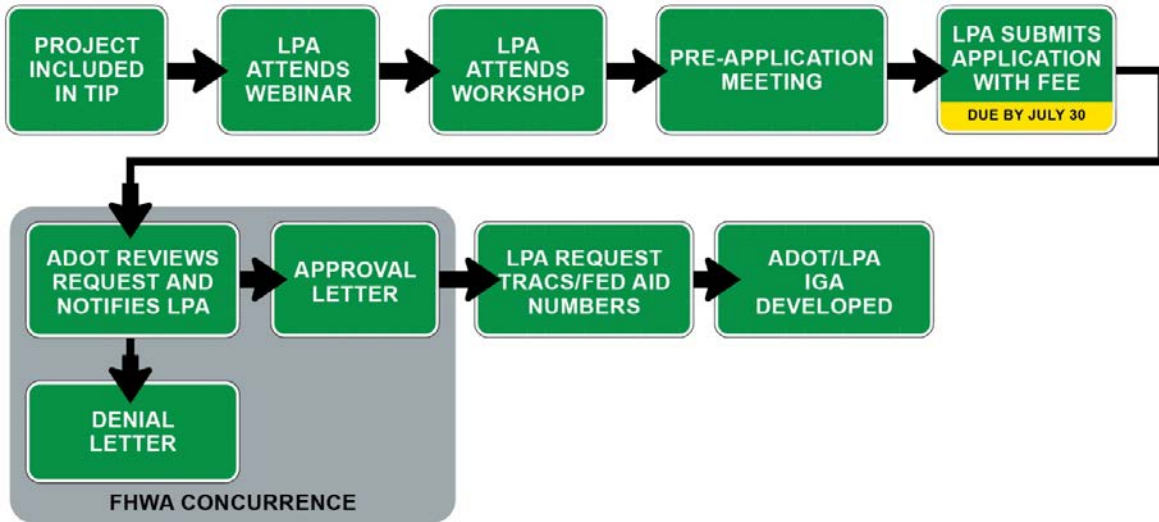


Figure 3-1 Self-Administration Application Process

Before approving an LPA for self-administration, ADOT will evaluate the LPA’s organization and past performance to determine whether the LPA can execute the work as described in the Self-Administration Application Process section of this chapter. LPAs that are granted self-administration authority will be held accountable for compliance with rules and regulations of the FAHP. However, the ADOT project manager will oversee the project to ensure the LPA’s compliance with all applicable state, federal, and tribal laws, regulations, and requirements through project management.



LPAs should work directly with their ADOT project manager, who will coordinate with:

- FHWA to secure necessary concurrences and funding authorizations, and
- Other applicable ADOT sections for various reviews and approvals.

Self-Administration Costs

Self-administering LPAs will be assessed a fee to recover ADOT’s costs for design review and bid-package preparation while administering the development and advertisement of LPA projects. This review fee is due at the time of project initiation (i.e., when the TRACS and federal-aid numbers are requested and assigned), and is not eligible for federal reimbursement.

ADOT also requires fees based on the estimated project construction cost to cover ADOT construction engineering, contingencies for potential cost overruns, and postproject activities. These fees are due before advertisement for bid and are eligible for federal reimbursement at the pro rata rate for the program in which the project is funded. See the Initiating an LPA Project section in Chapter 2, ADOT Administration, for a summary of estimated costs for ADOT to administer LPA projects.



ADOT delegates specific authority to LPAs under self-administration but remains ultimately responsible for compliance with all applicable state, federal, and tribal laws, regulations, and requirements. Once authorized by FHWA, all project activities must be administered according to the procedures and processes outlined in this manual. Otherwise, some or all project activities may not be eligible for reimbursement with federal funds.

Overview of Self-Administration

To qualify for self-administration, an LPA must demonstrate its capability, experience, and resources to develop and administer approved activities for the given project in accordance with all applicable agency, state, federal, and tribal laws, regulations, and requirements. Under self-administration, ADOT:

- ▶ Systematically and rigorously evaluates the LPA's ability to successfully develop and implement federal-aid projects
- ▶ Delegates authority to the LPA to carry out responsibilities for specific activities, through an IGA
- ▶ Evaluates the LPA's performance throughout the project development and implementation process to ensure that all applicable state, federal, and tribal laws, regulations, and requirements are being met

LPAs that are granted authority to self-administer project activities must:

- ▶ Commit sufficient resources, including a qualified professional as their person in responsible charge and qualified staff with the appropriate credentials and registrations to ensure that the project is developed according to ADOT and FHWA requirements
- ▶ Meet all applicable state, federal, and tribal laws, regulations, and requirements
- ▶ Meet all required recordkeeping and reporting requirements, including those under Arizona Revised Statutes (ARS) 35-214
- ▶ Follow the ADOT *Construction Manual*
- ▶ Follow ADOT procurement procedures
- ▶ Follow applicable ADOT and federal requirements to select a consultant (e.g., qualification-based selection process) or opt to request that ADOT ECS select a consultant from the on-call list to obtain consultant services
- ▶ Follow applicable ADOT/federal requirements to select a contractor or opt to request that ADOT C&S administer contractor selection with concurrence from ADOT LPA Section (refer to Chapter 18, Contracting, Consultant Selection, and Procurement, for more information on the ADOT and federal requirements for contracting, consultant selection, and procurement)



The person in responsible charge must be a full-time LPA staff member (not a consultant) who is qualified to successfully complete projects in accordance with all applicable state, federal, and tribal laws, regulations, and requirements. He or she will serve as the project administrator and must have the training, experience, and knowledge needed to review and make critical decisions about a project as it progresses to completion. The LPA's person in responsible charge does not have to be an engineer; however, if an engineer is not used, the LPA must have access to engineering expertise when needed. Additional responsibilities of the person in responsible charge include but are not limited to the following:

- Ensure that all applicable federal and state regulations are followed
- Ensure that the LPA is financially capable of paying project costs before receiving federal reimbursement of funds
- Commit resources required to manage project activities effectively
- Serve as agency contact for issues or inquiries concerning the project
- Closely monitor the project progress and participate in decisions that may modify the project
- Oversee QC during field construction activities to ensure compliance with all applicable requirements
- Ensure project records are complete, accurate, and properly maintained through the use of an acceptable document control system for a minimum of 5 years following FHWA closeout of the project in the FMIS (ARS 35-214)
- Ensure certified payrolls and compliance interviews are completed

Areas of Authority

An LPA may be approved to self-administer one or more of the federally funded project activities listed in Table 3-1 (this table also lists other chapters in this manual that discuss the policies and procedures for those activities). The areas of authority not delegated to a self-administering LPA belong to ADOT, FHWA, or both agencies. ADOT will grant authority to self-administer project activities based on its assessment of the LPA's qualifications, capacity, and capability to successfully carry out each activity. See the Self-Administration Application Process and Evaluation Criteria sections of this chapter for more information. Activities approved for self-administration must be identified as specific areas of authority in the IGA between the LPA and ADOT.



ADOT, FHWA, or both agencies retain final approval authority of specific activities related to ROW, utility and railroad clearances, civil rights, and environmental clearances according to state and federal requirements.

Table 3-1 Potential Areas of Authority for Self-Administration

Activity	Additional Information
Development/Design (excluding ROW activities) <ul style="list-style-type: none"> • Consultant selection • Preliminary engineering <ul style="list-style-type: none"> • Scoping documents • Environmental investigations up to 30% design plans (Stage II) • Design plans • Utility agreements • Materials reports • PS&Es • Bidding and advertising • Contract administration, including contract modifications 	Chapter 7, Scoping Chapter 8, Development/Design Chapter 9, Environmental Clearances Chapter 11, Utility and Railroad Coordination Chapter 12, Materials Report Clearances Chapter 13, Construction Chapter 14, Final Acceptance Chapter 16, Civil Rights Chapter 17, Financial Management/Reimbursement Chapter 18, Contracting, Consultant Selection, and Procurement
Construction <ul style="list-style-type: none"> • Consultant and contractor selection • Construction administration • Change-order approval • Materials-source approval • Financial management, including progress billings • Project closeout 	Chapter 13, Construction Chapter 14, Final Acceptance Chapter 16, Civil Rights Chapter 17, Financial Management/Reimbursement Chapter 18, Contracting, Consultant Selection, and Procurement

Approval Time Frame

Requests to self-administer can be submitted to ADOT as soon as the project has been included in a regional TIP, but applications are only reviewed once a year beginning in August. Once ADOT has approved the LPA for self-administration of specific project activities, ADOT will forward the application to FHWA for concurrence. It can take up to 3 months to receive approval to self-administer the specified activities for a project, depending on the complexity of the project.



LPA's should allow sufficient time to develop the project and to process the self-administration application. It can take up to 2 years to develop a project after it is entered into a regional TIP and the STIP. Additionally, it can take up to 3 months from the time of application for self-administration status to receive approval to self-administer a project.

Intergovernmental Agreements

For all federally funded self-administered LPA projects, an IGA is required between the LPA and ADOT to outline how the LPA will self-administer approved project activities. See the Intergovernmental Agreements section in Chapter 2, ADOT Administration, for more information on IGAs.



CAUTION

IGA development can begin as soon as the TRACS and federal-aid numbers have been assigned and must be fully executed before federal-aid funding can be authorized. Any work on the project performed before the federal-aid funding authorization effective date is not eligible for reimbursement.



CALENDAR WATCH

LPAs should allow up to 6 months for development and execution of the IGA. The IGA process should begin before, or as early as possible in, the federal fiscal year to ensure that funding can be authorized in a timely manner.

Things to Think about When Considering Self-Administration

LPAs should consider various issues when deciding whether or not to apply for the authority to self-administer project activities. ADOT will thoroughly review LPA processes, staff qualifications, resources, experience, etc., to ensure successful administration of the project activities. LPAs should review the factors ADOT uses to evaluate LPAs for self-administration, which are identified in the Evaluation Criteria section of this chapter. If LPAs decide to pursue self-administration, they should contact their MPO/COG before contacting ADOT to determine whether they have sufficient experience to qualify for self-administration. LPAs may also seek advice from ADOT LPA Section if they are uncertain about whether they have sufficient experience to qualify for self-administration.



CAUTION

Self-administration approval and federal-aid funding authorization can be rescinded if an LPA does not meet all applicable state, federal, or tribal laws, regulations, requirements, and procedures.

The self-administration application process requires significant documentation of the LPA's prior experience and capabilities for relative projects, as well as a nonrefundable application review fee. The amount of the fee is currently under review. The application process must be conducted for each new project that the LPA submits to self-administer, and the review process can take 3 months to complete. LPAs that are considering self-administration should carefully review their qualifications and assess the pros and cons of self-administration before completing the application. The following sections discuss why LPAs should—or should not—consider applying to self-administer specific activities of a project.



Myth: Self-administration saves money. Don't count on it. LPAs are held fully accountable to ADOT for compliance with all aspects of the LPA project development process and FAHP requirements. Therefore, the costs of self-administered projects may be equal to or higher than those of projects administered by ADOT. The self-administration process may not be as rigorous or labor intensive as the Certification Acceptance Program process, but LPAs considering self-administration status should carefully evaluate their resources and conduct a cost-benefit analysis on a project-by-project basis to ensure that the overall expected benefits outweigh the associated costs, effort, and time involved.

Factors to Consider When Applying for Self-Administration

LPAs should consider applying for self-administration if they:

- ▶ Have past experience with and understand the requirements of the FAHP
- ▶ Have sufficient financial resources to complete the project activities they are applying to administer before receiving federal reimbursement, as well as sufficient resources to pay the ADOT project review fee
- ▶ Have a contract-approving authority (i.e., a person who has the authority to enter into a contract with ADOT) with knowledge of the LPA project development process and the requirements of the federal-aid process (knowledge may be gained through experience or training)
- ▶ Can assign a full-time LPA employee as the person in responsible charge for the project who is a qualified professional with experience in the LPA project development process respective to the FAHP
- ▶ Have sufficient overall staffing capacity to accomplish the authorized activities
- ▶ Can assign an LPA staff member with an appropriate technical registration who is able to seal final versions of documents in accordance with ARS 32-125, or have acceptable consultant selection procedures in place to ensure selection of a qualified, registered consultant
- ▶ Have adequate resources, including equipment, to successfully complete the project activities they are applying to administer
- ▶ Have adequate QC procedures related to the activities they are applying to administer (checks and balances)
- ▶ Can adhere to ADOT's processes and procedures for administering LPA projects
- ▶ Have generally accepted accounting principles in place
- ▶ Have successfully completed annual single-audit reviews as required by the Single Audit Act Amendments of 1996 and the U.S. Office of Management and Budget (OMB) Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*

LPAs may decide against applying for self-administration if they:

- ▶ Do not meet one or more of the above-mentioned factors
- ▶ Do not have political support for the application process or to administer the project activities
- ▶ Are unwilling or unable to pay the nonrefundable project review fee

Benefits of Self-Administration

Benefits of self-administration include:

- ▶ Ability to exercise greater control over a project
- ▶ Opportunity to thoroughly scope a project
- ▶ Ability to manage project schedule and budget
- ▶ Opportunity to gain experience in administering FAHP projects
- ▶ Opportunity for staff to develop the knowledge, skills, and abilities needed to deliver projects successfully
- ▶ Opportunity to introduce an innovative approach to projects with ADOT and FHWA concurrence
- ▶ Opportunity to develop and implement QC practices



CAUTION

If LPAs decide to pursue self-administration, they should contact their MPO/COG before contacting ADOT to determine whether they have sufficient experience to qualify for self-administration.

Self-Administration Application Process

An LPA must apply for self-administration on a project-by-project basis and will only be approved to self-administer development/design or construction activities for each project. The LPA self-administration application process includes the following steps and is summarized in Figure 3-2:

1. Have key staff, including the person in responsible charge, from the LPA's project team attend ADOT Self-administration *LPA Projects Manual* webinar within the 12 months preceding the application to self-administer. LPAs should contact LPA Section for more information.
2. Have LPA staff attend an ADOT self-administration information workshop, which is held quarterly by LPA Section.
3. Request and schedule a pre-application informational meeting between the LPA and ADOT to discuss the self-administration process. FHWA's Local Programs engineer and the appropriate FHWA area engineer should be invited.
4. Submit a completed application package, which includes a Consideration of Self-Administration Request Form, to the ADOT project manager (the application will be forwarded to LPA Section if the ADOT project manager is not a member of LPA Section), to the appropriate ADOT district engineer, and to appropriate ADOT technical program representatives by July 30 (self-administration applications are only reviewed once a year beginning in August). Contact LPA Section for a copy of this form. The application package with the Consideration of Self-Administration Request Form must include the documentation listed below, in order to assist reviewers with identifying satisfactory status regarding an LPA's ability and qualifications to administer the project. Incomplete applications will not be processed.

- Project overview, including identification of sensitive areas or issues and how they will be addressed, and the anticipated bid-advertisement date
- Summary of previous experience administering LPA projects successfully, focusing on the types of activities included during the requested project activities
- Financial capability and resources to carry out activities included in the request
- Documentation of contracting authority
- Organization chart identifying authority, responsibilities, and names and qualifications of key staff
- Brief summaries of key staff capabilities and experience
- Description of procedures for contracting, consultant selection, procurement, civil rights compliance, QC, and project development/construction related to the applied-for project activities, as applicable. LPAs that would like to select their own consultants must also complete ADOT ECS's *Local Public Agency (LPA) Application Review Checklist* to be forward by LPA Section to ECS for separate approval for consultant selection activities. The most current version of the checklist is available on ECS's website (see the Resources list at the end of this chapter).
- Additional information (to be included in an appendix): two-page résumés for key staff (LPAs should note that résumés must be updated and ADOT must be notified for any changes in key staff that occur before project closeout)
- Application review fee

Applications will be reviewed by the LPA Section group manager, appropriate ADOT district engineer, and appropriate ADOT technical program representatives. Each applicant's qualifications will be evaluated by ADOT and FHWA according to the criteria outlined in the Evaluation Criteria section of this chapter.

5. Receive notification of approval/denial of authority to self-administer. ADOT will notify applicants in writing whether they have been approved or denied the authority to self-administer the requested project activities. Approval is subject to FHWA concurrence.
6. Execute the IGA. LPAs should actively work with ADOT's Joint Project Administration Branch to develop the IGA, which will:
 - Identify estimated project costs and funding amount and type, including local match requirements (refer to Chapter 6, Planning/Programming, for descriptions of funding programs under the FAHP and their match requirements)
 - Identify any items not eligible for federal-aid funds
 - Provide project description, including the location and key issues and how they will be addressed
 - Provide a detailed scope of work, what project development/design or construction activities will be required, and who will be responsible for them
 - Provide project schedule
 - Identify contract authority and the person in responsible charge
 - Define project closeout procedures

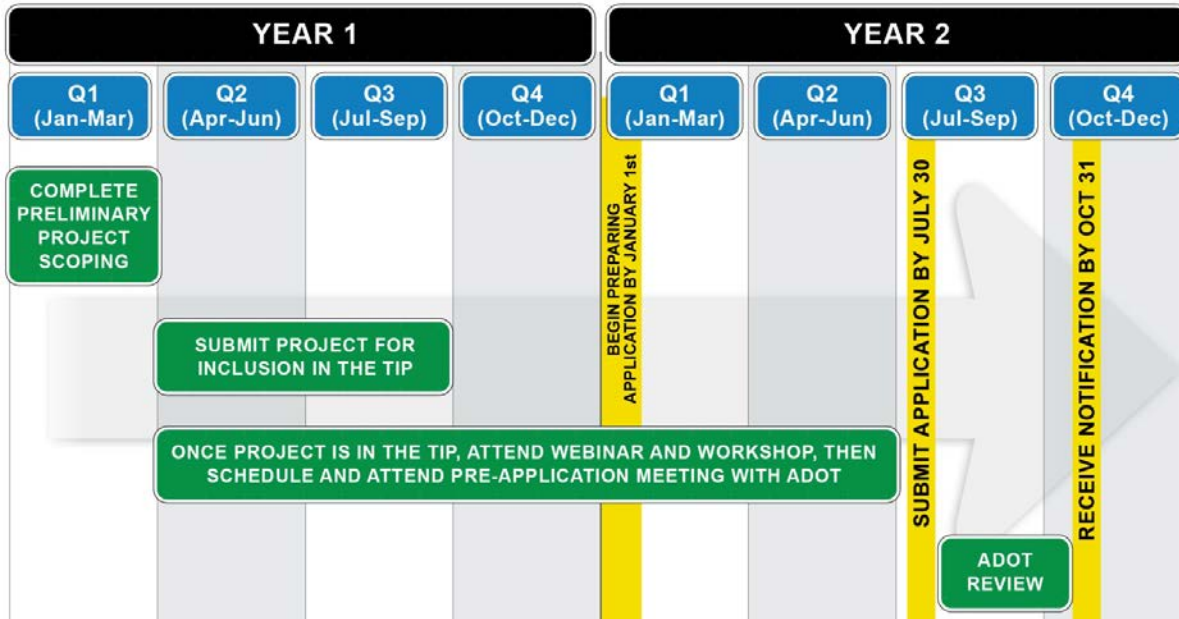


Figure 3-2 Self-Administration Application Process Timeline



CAUTION

For LPAs that would like to select their own consultants, the self-administration application package must include a completed ADOT ECS *Local Public Agency (LPA) Application Review Checklist*, which will be forward by ADOT LPA Section to ECS for separate approval. LPAs must use the most recent version of the checklist, which is available on the ECS website (see the Resources list at the end of this chapter).

Evaluation Criteria

The following list includes the primary factors that will be evaluated by ADOT when considering an LPA’s request to self-administer:

- Eligibility of the project for FAHP funding
- LPA’s availability of resources to complete the project:
 - Ability to meet local match requirements, if applicable
 - Capability to finance all project costs before reimbursement with federal funds
 - Ability to provide other needed resources (e.g., hardware, software, materials-testing equipment)
- Thoroughness of the project overview, including identification of key issues and how they are addressed
- Adequacy of procedures for procurement, consultant selection, contracting, civil rights compliance, QC, development/design, and construction
- Adequacy of process for communicating effectively with ADOT/FHWA

- ▶ History of prior project delivery using federal-aid funding, including any process review/audit performed for prior projects
- ▶ Staffing capacity, including a qualified person in responsible charge
- ▶ History of orderly recordkeeping (e.g., documentation, including contractor staff interviews, daily diaries)
- ▶ Acceptable LPA audit/review results

**CAUTION**

LPA that have received approval to self-administer selected activities within the project development process must provide updated information to ADOT for major changes to the scope and budget, as well as changes in key staff or schedule. LPAs should notify ADOT of changes as soon as possible—preferably in advance of the change since the IGA must be amended. If the federal-aid funding amount specified in the IGA is not approved by FHWA, the LPA will be responsible for financing the unfunded portion of the project costs. Changes greater than 20% require FHWA involvement.

Evaluation Results

Potential self-administration evaluation results are as follows:

- ▶ **Approval:** The LPA is approved to self-administer specified project activities on a particular project. However, ADOT, FHWA, or both agencies retain final approval authority of specific activities related to ROWs, utility and railroad clearances, civil rights, and environmental clearances according to state and federal requirements (see Attachment 3-1 for a list of the approval authority for specific project activities).
- ▶ **Denial:** The self-administration application will be denied if the LPA staff is found to have insufficient qualifications or if the LPA fails to meet all applicable state, federal, and tribal laws, regulations, and requirements. If the LPA is denied self-administration status, ADOT will administer the project activities.

Third-Party Project Administration

Under the Certification Acceptance Program, certified LPAs may administer projects on behalf of noncertified LPAs. Noncertified LPAs, including those considering self-administration, that are interested in this option should contact their ADOT project manager; approval from ADOT and concurrence from FHWA is needed before third-party administration of a project. The LPA serving as third-party project administrator may charge a fee to review the project before determining whether to accept the third-party administrator role, as well as a fee for project administration and project review. Projects administered using a third-party administrator must meet all applicable state, federal, and tribal laws, regulations, and requirements for federally funded LPA projects; however, specific processes for meeting these requirements will vary. LPAs choosing the third-party method of project administration must execute an IGA with ADOT and the third-party administrator that specifies the details of project funding and administration.

Roles and Responsibilities

The LPA’s roles and responsibilities for a given project depend on project-specific information and the LPA’s qualifications. Roles and responsibilities during the self-administration application process are outlined in Table 3-2. In addition, approval authority for specific project tasks is summarized in Attachment 3-1, LPA Responsibility Chart: ADOT Administration versus Self-Administration.

Table 3-2 Roles and Responsibilities for Self-Administered Projects

Task	LPA	ADOT	FHWA
LPA Projects Manual webinar	Have key project staff attend in the 12 months preceding the application to self-administer	Facilitate	N/A
Self-administration information workshop	Participate	Facilitate	Participate
Pre-application meeting	Request meeting	Conduct	Participate
Self-administration application	Complete and submit	Evaluate and approve/deny	Review and concur
IGA development and execution	Coordinate and sign	Coordinate, prepare, and sign	N/A
Project administration	Administer approved activities; actively participate in administration of remaining activities	Administer project activities not approved for self-administration; monitor and provide oversight for state, federal, and tribal requirements	Provide technical guidance; ensure compliance with federal requirements; retain final approval authority of specific activities

RESOURCES

ADOT Engineering Consultants Section Local Public Agency (LPA) Application Review Checklist

<http://www.azdot.gov/docs/business/ecs-local-public-agency-review-checklist.pdf?sfvrsn=0>

ADOT Joint Project Administration Website

<http://www.azdot.gov/business/programs-and-partnerships/JointProjectAdministration/overview>

ADOT Joint Project Agreement (JPA) Instructional Guide

<http://www.azdot.gov/docs/business/joint-project-administration---joint-project-agreement-instructional-tutorial.pdf?sfvrsn=0>

Executed JPA Search Engine (includes scanned copies of JPAs)

<http://wwwa.azdot.gov/applications/ecms/JPASearch.aspx>

FHWA and ADOT Stewardship and Oversight Agreement for Arizona

<http://www.fhwa.dot.gov/federalaid/stewardship/agreements/az.cfm>

<http://www.azdot.gov/business/engineering-and-construction/traffic/traffic-safety/stewardship-and-oversight-agreement-for-arizona>

What is Joint Project Administration?

<http://www.azdot.gov/business/programs-and-partnerships/JointProjectAdministration/overview>

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ATTACHMENT 3-1: LPA RESPONSIBILITY CHART: ADOT ADMINISTRATION VERSES SELF-ADMINISTRATION

Approval Action	Approval Authority		
	State Delegated Oversight Projects		Full Oversight
	ADOT Administered LPA Projects ("T" Projects)	Self-Administered LPA Projects ("D" Projects)	ADOT Administered LPA Projects ("S" Projects) (note: full oversight projects cannot be self-administered)
ADMINISTRATION			
Financial Management			
Authorization of funds (23 CFR 630.106)	FHWA	FHWA	FHWA
Modified project agreement—preliminary engineering through construction (23 CFR 630.110)	FHWA	FHWA	FHWA
Final acceptance letter from LPA to ADOT LPA Section or TE	ADOT	ADOT	ADOT
Final acceptance letter from ADOT Final Voucher Section to FHWA	FHWA	FHWA	FHWA
Final voucher report	FHWA	FHWA	FHWA
Section 1.9 waiver (23 CFR Section 1.9)	FHWA	FHWA	FHWA
Final contractor estimate	ADOT	LPA	FHWA
PROGRAM DEVELOPMENT			
Right-of-Way			
Interstate control of access (23 CFR 620. 203[h])	FHWA	FHWA	FHWA
Federal land transfer request (23 CFR 710.601)	FHWA	FHWA	FHWA
Withholding of payments (23 CFR 710.203[c]; 23 CFR 1.36)	FHWA	FHWA	FHWA
Protective buying and hardship acquisition (23 CFR 710.307, 503)	FHWA	FHWA	FHWA
ROW relinquishment request (23 CFR 620[b]; 23 CFR 710.401, 23 CFR 710.403)	FHWA	FHWA	FHWA
Disposal of federally funded ROW (23 CFR 710.403, 409)	FHWA	FHWA	FHWA
Railroad agreement (23 CFR 646.216[3][d])	ADOT	ADOT	FHWA
Request for credits for early acquisition of ROW (23 CFR 710.501)	FHWA	FHWA	FHWA
Direct federal acquisition (23 CFR 710.603)	FHWA	FHWA	FHWA
Planning			
Ensure project is in STIP	ADOT	ADOT	ADOT
Verify eligibility for funding category	ADOT	ADOT	ADOT
Project assessment, scope, schedule, and budget	ADOT	ADOT	ADOT
Authorization for federal-aid reimbursement of project expenditures	FHWA	FHWA	FHWA

Approval Action	Approval Authority		
	State Delegated Oversight Projects		Full Oversight
	ADOT Administered LPA Projects ("T" Projects)	Self-Administered LPA Projects ("D" Projects)	ADOT Administered LPA Projects ("S" Projects) (note: full oversight projects cannot be self-administered)
PROJECT DEVELOPMENT			
Environment			
Class II programmatic CEs (23 CFR 771.117) that fit within ADOT/FHWA programmatic agreement parameters	ADOT	ADOT	ADOT
Class II nonprogrammatic CEs (23 CFR 771.117)	FHWA	FHWA	FHWA
EAs (draft, final, FONSI) (23 CFR 771.119)	FHWA	FHWA	FHWA
EISs (NOI, draft, final, ROD) (23 CFR 771.123)	FHWA	FHWA	FHWA
Re-evaluations (programmatic CEs) (23 CFR 771.129)	ADOT	ADOT	ADOT
Reevaluations (nonprogrammatic CEs, EAs, EISs) (23 CFR 771.129)	FHWA	FHWA	FHWA
Section 4(f) determinations (23 CFR 774)	FHWA	FHWA	FHWA
150-day statute of limitations (23 USC 139[1][1])	FHWA	FHWA	FHWA
Section 106 actions (36 CFR 800)	FHWA	FHWA	FHWA
Design			
Authorize preliminary design funds	FHWA	FHWA	FHWA
Consultant agreements (23 CFR 172.7-172.9)	ADOT	ADOT (1)	FHWA
Design exceptions that deviate from AASHTO design standards	ADOT (2)	ADOT (2)	FHWA
Geotechnical investigation reports (initial and final)	ADOT	LPA	FHWA
Materials design report (initial and final)	ADOT	LPA	FHWA
Drainage report (initial and final)	ADOT	LPA	FHWA
Structures selection (initial and final)	ADOT	ADOT	FHWA
15%, 30%,60%, 95% plans	ADOT	LPA (3)	FHWA
Utility clearance letter	ADOT	ADOT	FHWA
ROW clearance letter	ADOT	ADOT	FHWA
LPA request to self-bid and/or administer a project	Not applicable	ADOT (4)	FHWA
Design concept report	ADOT	ADOT	ADOT
Hiring of consultant to serve in a "management" role (23 CFR 172.9[d])	FHWA	FHWA	FHWA
Innovative contracting requirements (SEP 14 and 15)	FHWA	FHWA	FHWA
PS&E and Advertising			
PS&Es (23 CFR 630.205, 23 USC 106)	ADOT	ADOT	FHWA
Authorize advertising for bids (23 CFR 635.112)	FHWA	FHWA	FHWA
Authorize utility or railroad force-account work (23 CFR 645.113, 646.216)	ADOT	LPA (3)(5)	FHWA
Bid analysis (engineer estimates)	ADOT	LPA (3)	FHWA
Advertising period less than 3 weeks (23 CFR 635.112[b])	FHWA	FHWA	FHWA
Use of contracting method other than competitive bidding (23 CFR 635.104 and 204)	FHWA	FHWA	FHWA

Approval Action	Approval Authority		
	State Delegated Oversight Projects		Full Oversight
	ADOT Administered LPA Projects ("T" Projects)	Self-Administered LPA Projects ("D" Projects)	ADOT Administered LPA Projects ("S" Projects) (note: full oversight projects cannot be self-administered)
Utility and railroad agreements (23 CFR 645.113 & 646.216)	ADOT	ADOT	FHWA
Warranties (23 CFR 635.413)	ADOT	ADOT	FHWA
PIFs			
PIF—statewide and project-specific use of proprietary products and processes (23 CFR 635.411)	ADOT	ADOT	FHWA
PIF and cost-justification letter—statewide and project-specific concurrence in use of publicly furnished material and expenses (23 CFR 635.407)	ADOT	ADOT	FHWA
Blanket PIFs	FHWA	FHWA	FHWA
PIF—use of force account (23 CFR 635.204, 205)	ADOT	ADOT	FHWA
PIF—use of mandatory borrow/disposal sites (23 CFR 635.407)	ADOT	ADOT	FHWA
PIF—use of publicly owned equipment (23 CFR 635.106)	ADOT	ADOT	FHWA
Construction (Currently not available [6])			
Authorization of construction funds	FHWA	FHWA	FHWA
Approve addenda during advertising period (23 CFR 635.112)	ADOT	ADOT	FHWA
Concur in settlement of contract claims	ADOT	ADOT	FHWA
Concur in award of contract (23 CFR 635.114)	ADOT	ADOT	FHWA
Bid rejections (23 CFR 635.114)	ADOT	ADOT	FHWA
Termination of contracts (23 CFR 635.125)	FHWA	FHWA	FHWA
Construction engineering by LPA (23 CFR 635.105)	ADOT	ADOT	FHWA
Contract time extensions (23 CFR 635.120, 121)	ADOT	LPA (3)	FHWA
Major changes and extra work (23 CFR 635.120)	FHWA	FHWA	FHWA
Minor changes and extra work (23 CFR 635.120)	ADOT	LPA (3)	FHWA
Final inspection/acceptance of completed work (23 USC 114[a])—must notify ADOT/FHWA of final inspections	ADOT	LPA (3)	FHWA
Buy America waiver (23 CFR 635.410, ISTEA Sec. 1041[a], 1048[a]; 41 CFR 101 [a-d])	FHWA	FHWA	FHWA
Materials certification acceptance (23 CFR 637.207)	ADOT	LPA (3)	FHWA
Subcontracting requirements (23 CFR 635.116[b])	ADOT	LPA (3)	FHWA
Any contract change order that would make a change to committed DBE, EEO, and OJT/apprenticeship participation must involve ADOT's Civil Rights Office. The LPA must contact the ADOT project manager.	FHWA	FHWA	FHWA

Table Key: AASHTO = American Association of State Highway and Transportation Officials; CE = categorical exclusion; CFR = Code of Federal Regulations; DBE = Disadvantaged Business Enterprise; EA = environmental assessment; EEO = Equal Employment Opportunity; EIS = environmental impact statement; FONSI = Finding of No Significant Impact; LPA Section = ADOT Local Public Agency Section; NOI = Notice of Intent; OJT = on-the-job training; PIF = public interest finding; PS&Es = plans, specifications, and estimates; ROW = right-of-way; STIP = Statewide Transportation Improvement Program; TE = Transportation Enhancement; USC = United States Code.

Table General Note: All correspondence to FHWA must be sent via the ADOT project manager.

Table Notes: (1) If LPA is paying for design activities then the LPA will approve and administer; if federal-aid funds are used for design activities then ADOT will review and approve. (2) Design exceptions for projects on the National Highway System, including the Interstate System, must be approved by FHWA. (3) ADOT project manager must receive a copy of the documentation (4) FHWA concurrence required. (5) ADOT Utilities and Railroad Engineering Section must receive a copy of the documentation. (6) The self-administration process is currently under review by ADOT and FHWA and will not be fully available to LPAs until the process is developed and approved by ADOT with concurrence from FWHA (see Attachment 3-2 for the ADOT bulletin regarding the current limits of self-administration).

ATTACHMENT 3-2: LPA BULLETIN #1, SELF-ADMINISTRATION ON LPA PROJECTS



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September 10, 2012

Local Public Agency (LPA) Bulletin #1

Self-Administration on Local Public Agency Projects

Purpose: To give direction and clarification concerning Self-Administration (SA) on LPA projects.

In the Fall of 2011 the Federal Highway Administration (FHWA) and Arizona Department of Transportation (ADOT) performed a number of audits on LPA self-administered projects. These projects included: Local Government, Transportation Enhancement, Local Bridge and Local Highway Safety Improvement Program Projects. The audits reported on a number of concerns including: Conflict of Interest, lack of source documentation, missing Buy America Certifications, and unapproved LPA consultant procurement procedures. As a result of this audit, in at least one case, ADOT and the LPA will be asked to repay the federal funds. This has prompted the question as to whether local agencies have been given adequate guidance and training to self-administer federally funded projects using funding from FHWA. There is also concern that ADOT does not have in place a system to provide proper oversight and monitoring of the LPA SA program. To address these concerns, ADOT is implementing the following changes to the SA program.

Development Activities

When federal aid funds are used in the development (design, environmental, and right of way) of an LPA project, the Arizona Department of Transportation (ADOT) is required to administer the project or to provide oversight of the process. When ADOT provides administration of the development process, ADOT will do so in accordance with the approved *Stewardship and Oversight Agreement* between ADOT and FHWA. Pursuant to 23 USC 106(c), only certain project-level actions and authorities can be delegated. These involve: design, plans, specifications, estimates, contract awards, and inspection of projects. However, actions under the following non-Title 23 authorities cannot be delegated: National Environmental Policy Act (excepted as permitted under Title 23); Uniform Relocation Assistance & Real Property Acquisitions Act; and Clean Air Act. Therefore, ADOT is unable to allow local oversight for right-of-way purchases and environmental clearances. ADOT may allow an LPA to self-administer the design elements of the project. In order to qualify for self-administration, an LPA must apply for and demonstrate its capability, experience, and resources to develop and administer approved activities for the given project in accordance with all applicable agency, state, federal, and tribal laws, regulations, and requirements. If the LPA uses a consultant to design the project, they must follow applicable ADOT and federal requirements to select a consultant (e.g., qualification-based selection process) or opt to request that ADOT Engineering Consultant Services select a consultant from the on-call list to obtain consultant services.

Pre-Construction and Construction Activities

When federal aid funds are used in the construction of an LPA project, ADOT is required to administer the project or to provide oversight of the process. When ADOT provides construction administration they will do so in accordance with the approved *Stewardship and Oversight Agreement* between ADOT and FHWA.

Pre-construction administration includes:

- Review of design plans and specifications
- Review and approve all required clearances (environmental, right-of-way and utilities)
- Advertise for construction, open bids and award projects in accordance with state and federal regulations

Construction administration includes:

- Performing construction oversight as detailed in the ADOT construction manual to insure work conforms to the project plans and specifications
- Making Contractor monthly payments
- Approving supplemental agreements
- Perform required testing and ensure all materials have the needed certifications
- Completing final document and making final payment

Currently ADOT is not approving new local self-administration of construction projects. ADOT will be looking for opportunities to partner with local agencies to share the construction administration duties if there is a desire from the local agency. ADOT will soon begin developing an Oversight and Monitoring Program. Once the program is in place, ADOT will revisit the subject of self-administration of federal aid LPA projects.

In Summary, ADOT may allow an LPA to self-administer the design elements of a project if requirements are met. ADOT is unable to allow local oversight for right-of-way purchases and environmental clearances. ADOT is not approving new local self-administration of pre-construction and construction project phases.

ADOT understands that this is a change in the way business has been conducted in the past, but we believe that for Arizona to have a successful and compliant LPA program, these changes are needed. ADOT will continue to look for opportunities to improve the LPA process.



CHAPTER 4

Certification Acceptance

Introduction

Through ADOT's Certification Acceptance Program, ADOT can permit certified LPAs to independently administer most project activities, with ADOT oversight. Through the *FHWA and ADOT Stewardship and Oversight Agreement for Arizona*, FHWA has delegated the authority to ADOT to administer projects funded under the FAHP. Title 23 CFR Sections 1.11 and 635.105 allow ADOT to further delegate this authority to qualified LPAs, but ADOT retains ultimate responsibility for monitoring and overseeing the LPA's compliance with all applicable state, federal, and tribal laws, regulations, and requirements.

LPAs that have been approved by ADOT through the Certification Acceptance Program (certified LPAs) have been delegated approval authority to programmatically administer federally funded transportation projects (see Attachment 4-1 for specific approval authority information). While the Certification Acceptance Program does not eliminate any project development and implementation procedures or requirements, it may help LPAs save time and money by giving them control over the process of developing, advertising, awarding, and managing their own projects with ADOT's oversight. Figure 4-1 shows an overview of the Certification Acceptance process.



The Certification Acceptance application process is currently under review by ADOT and FHWA and will not be available to LPAs until the process is approved by ADOT with concurrence from FHWA. If the LPA has been previously certified under the Certification Acceptance Program, the LPA may continue to administer their projects as described in this manual; however, ADOT is not currently accepting new applications for the Certification Acceptance Program.

The information in this chapter is provided for informational purposes, and is the process as proposed by ADOT to FHWA. LPAs should note that some requirements or policies may change. LPAs should contact their ADOT project manager for the current status of the Certification Acceptance Program.

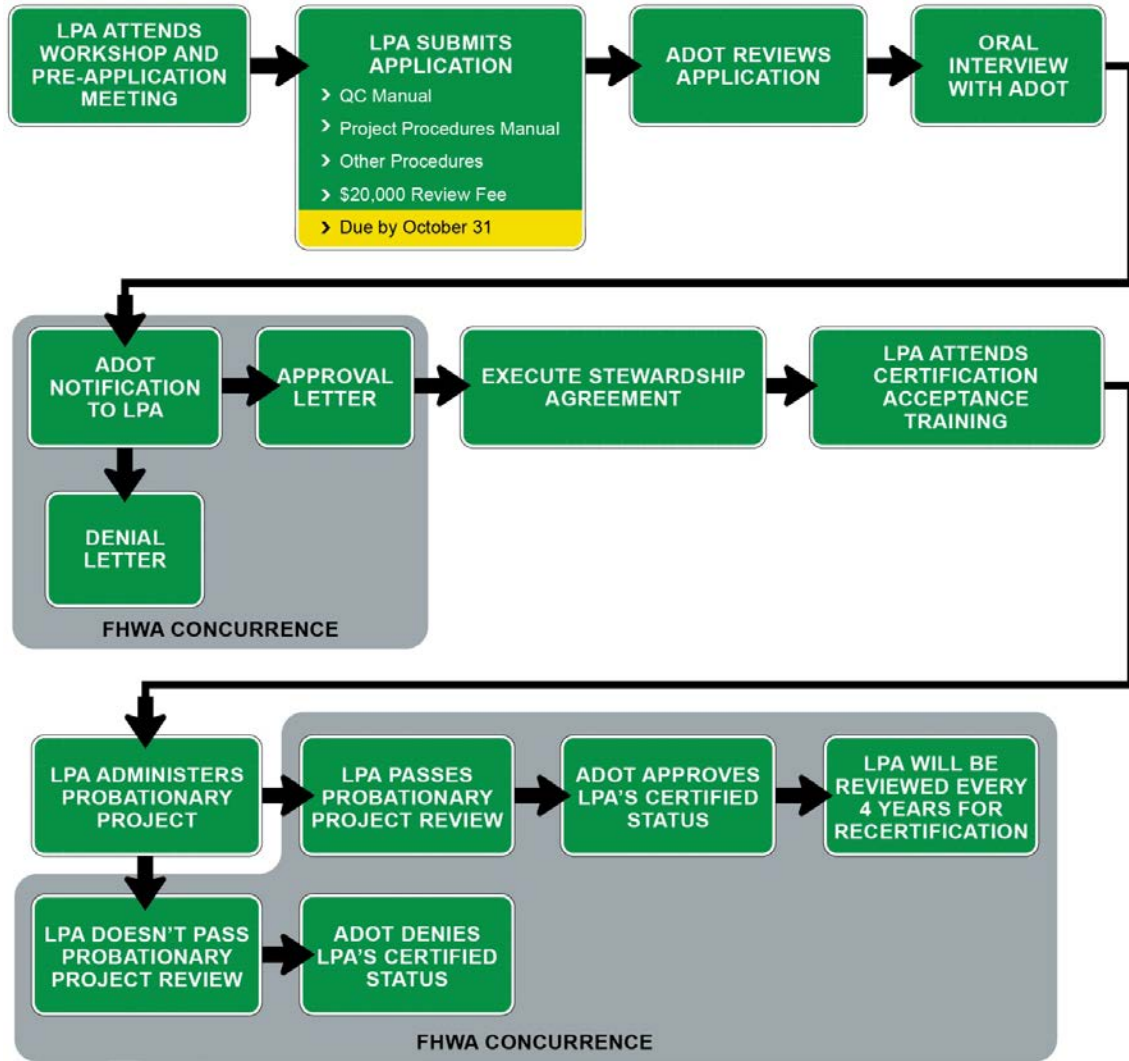


Figure 4-1 Certification Acceptance Application Process



CAUTION

While ADOT may delegate authority to LPAs under the Certification Acceptance Program, ADOT remains ultimately responsible for monitoring and overseeing the LPA's compliance with all applicable state, federal, and tribal laws, regulations, and requirements.



Typically, LPAs that have fewer than two projects per year (with a value of at least \$1 million each) should not apply to become certified under the Certification Acceptance Program since it would not be cost effective.

The Certification Acceptance application process is rigorous and requires significant effort and resources. LPAs that are considering Certification Acceptance status should carefully evaluate their resources and conduct a cost-benefit analysis to ensure that the overall expected benefits of being certified outweigh the associated costs, effort, and time involved.

Overview of Certification Acceptance

The Certification Acceptance Program requires LPAs to have the capability, experience, and resources to develop and administer projects according to all applicable agency, state, federal, and tribal laws, regulations, and requirements. Through the Certification Acceptance Program, ADOT:

- ▶ Systematically and rigorously evaluates the LPA's ability to successfully develop federal-aid projects
- ▶ Delegates authority to the LPA through an ADOT/LPA stewardship agreement, as applicable
- ▶ Evaluates the LPA's performance throughout the project development process to ensure that all applicable state, federal, and tribal laws, regulations, and requirements are being met
- ▶ Evaluates the LPAs performance on the initial project
- ▶ Reevaluates the LPA's ability to retain certification every 4 years through its Certification Acceptance recertification process, or more frequently if ongoing issues or concerns regarding the LPA's ability to properly administer projects are identified

LPAs that are granted certification under the Certification Acceptance Program must:

- ▶ Commit sufficient resources, including a person in responsible charge and qualified staff with the appropriate credentials and registrations to ensure that the project is developed according to ADOT and FHWA requirements
- ▶ Meet all applicable state, federal, and tribal laws, regulations, and requirements
- ▶ Meet all required recordkeeping and reporting requirements, including those under ARS 35-214
- ▶ Follow ADOT procurement procedures as approved by ADOT ECS, ADOT C&S, and ADOT Procurement Group
- ▶ Follow applicable ADOT/federal requirements to select a consultant (e.g., qualification-based selection process) or opt to request that ADOT ECS select a consultant from the on-call list to obtain consultant services
- ▶ Follow applicable ADOT/federal requirements to select a contractor or opt to request that ADOT C&S administer contractor selection with concurrence from ADOT LPA Section (refer to Chapter 18, Contracting, Consultant Selection, and Procurement for more information on the ADOT and federal requirements for contracting, consultant selection, and procurement)



As discussed in Chapter 3, Self-Administration, the person in responsible charge must be a full-time LPA staff member (not a consultant) who is qualified to successfully complete projects in accordance with all applicable state, federal, and tribal laws, regulations, and requirements. He or she will serve as the project administrator and must have the training, experience, and knowledge needed to review and make critical decisions about a project as it progresses to completion. The LPA’s person in responsible charge does not have to be an engineer; however, if an engineer is not used, the LPA must have access to engineering expertise when needed. Additional responsibilities of the person in responsible charge include but are not limited to the following:

- Ensure that all applicable federal and state regulations are followed
- Ensure that the LPA is financially capable of paying project costs before receiving federal reimbursement of funds
- Commit resources required to manage project activities effectively
- Serve as the agency contact for issues or inquiries concerning each LPA project
- Closely monitor project progress and participate in decisions that may modify the project
- Oversee QA during field construction activities
- Ensure that project records are complete, accurate, and properly maintained through the use of an acceptable document control system
- Ensure certified payrolls and compliance interviews are completed

Areas of Authority

A certified LPA is approved by ADOT to administer LPA projects funded through the FAHP and may be the approving authority for project activities unless specified otherwise. For example, ADOT maintains authority to process the federal funding authorization, review and approve the project scoping report, and provide environmental clearance. The specific areas of authority delegated to the certified LPA will be outlined in the ADOT/LPA stewardship agreement (see the ADOT/LPA Stewardship Agreement section of this chapter for additional details). The remaining areas of authority belong to ADOT, FHWA, or both agencies.



ADOT, FHWA, or both agencies retain final approval authority of specific activities related to ROW, utility and railroad clearances, civil rights, and environmental clearances according to state and federal requirements.

Intergovernmental Agreements

An IGA is only required for Certification Acceptance projects that are processed through ADOT Procurement (see the Intergovernmental Agreements section in Chapter 2, ADOT Administration, for more information about IGAs, and see Chapter 18, Contracting, Consultant Selection, and Procurement, for more information about the procurement process).

ADOT/LPA Stewardship Agreement

LPAs considering applying to become certified under the Certification Acceptance Program must review the requirements listed in the Things to Think about When Considering the Certification Acceptance Program section of this chapter.

Qualified LPAs that are accepted into the Certification Acceptance Program will enter into a stewardship agreement with ADOT. The ADOT/LPA stewardship agreement is a legally binding document that delegates approval authority to the LPA for specified areas of authority. The ADOT/LPA stewardship agreement remains in effect as long as the LPA remains certified and continues to demonstrate its ability to successfully develop projects according to state, federal, and tribal laws, regulations, and requirements. It should be noted that all federally funded projects must be included in the STIP and be assigned TRACS and federal-aid numbers by the ADOT project manager.

Items that will be included in the ADOT/LPA stewardship agreement are listed below:

- ▶ Areas of authority to be delegated to the LPA
 - Federal-aid funding provisions
 - Environmental studies (except environmental approval)
 - Procurement of professional consultant services
 - Preliminary design
 - Preparation of design plans
 - Surveying
 - ROW engineering
 - ROW appraisal and acquisition
 - ROW relocation
 - ROW demolition
 - Preparation of PS&Es
 - Preparation of bid-proposal package
 - Advertisement for receipt of bids
 - Award of contract
 - Contract administration
 - Inspection

- A responsibility chart identifies positions that will have approval authority for each action (e.g., PS&Es; design exceptions; public interest findings) (see Attachment 4-1 for the LPA Responsibility Chart: ADOT Administration versus for Certification Acceptance)
- A list of potential LPA federal-aid projects anticipated to be administered under the Certification Acceptance Program, based on the regional TIP

According to the *FHWA and ADOT Stewardship and Oversight Agreement for Arizona*, ADOT or FHWA (or both agencies) retain responsibility for the following:

- Review and approval of the Certification Acceptance Program and agreements with FHWA concurrence
- National Environmental Policy Act (NEPA) review
- Design review
- Design-exception approval (FHWA approves all design exceptions to AASHTO standards for projects on the NHS; ADOT approves design exceptions to any required design standards or criteria for projects off the NHS)
- Establishment of Disadvantaged Business Enterprise (DBE) goals
- Certification of payrolls and compliance interviews
- Construction oversight
- Final inspection and acceptance
- Project audit
- Select ROW activities (see Attachment 4-1, LPA Responsibility Chart: ADOT Administration versus Certification Acceptance)
- Utility and railroad clearance, and environmental certifications
- Public interest findings (PIFs)

ADOT will review the LPA's certification every 4 years, or more frequently if ongoing issues or concerns regarding the LPA's ability to properly administer projects are identified, and will make any necessary updates to the stewardship agreement. The stewardship agreement may also need periodic updates based on changes to laws, regulations, guidelines, ordinances, tribal requirements, etc. Certified LPAs *must* update the stewardship agreement to reflect changes to any of the following conditions:

- Changes in federal laws, regulations, policies, or guidance
- Changes in key personnel named in the agreement (e.g., officials, chief executive officer, person in responsible charge, registered professionals)
- Modifications to LPA policies and procedures
- Changes required by Certification Acceptance reviews

If any changes or updates are made to LPA policies and procedures that affect federally funded projects, approval from ADOT and FHWA is required before implementation.

Things to Think about When Considering the Certification Acceptance Program

By certifying an LPA, ADOT (with FHWA concurrence) is delegating authority to the LPA for project administration and certifying that the LPA is qualified to meet all applicable state, federal, and tribal laws, regulations, and requirements. In essence, a certified LPA becomes a “mini-ADOT” for the purposes of administering the LPA’s federal-aid highway projects.

ADOT conducts a thorough review of the LPA’s processes, staff qualifications, resources, experience, etc., to successfully administer federally funded projects. The Certification Acceptance application process requires a \$20,000 nonrefundable application review fee and may take 12 to 18 months to complete. LPAs that are considering certification should carefully review their qualifications before completing the application. The following sections discuss why LPAs should—or should not—consider applying for certification under the Certification Acceptance Program.



The LPA’s certification can be placed on probationary status or rescinded if the LPA does not comply with all applicable state, federal, or tribal laws, regulations, requirements, and procedures.

Factors to Consider When Applying for Certification

LPAs may consider applying for certification when they:

- ▶ Anticipate two or more projects per year with a value of at least \$1 million each
- ▶ Have past experience with administering projects under the FAHP and have an in-depth knowledge of the requirements
- ▶ Have sufficient financial capacity to complete LPA projects before receiving federal reimbursement
- ▶ Have a contract-approving authority (i.e., a person who has the authority to enter into a contract with ADOT) with knowledge of the LPA project development process and the requirements of the federal-aid process (knowledge may be gained through experience or training)
- ▶ Can assign a full-time LPA staff member as the person in responsible charge for the project who is a qualified professional with experience in the LPA project development process respective to the FAHP
- ▶ Can assign an LPA staff member with an appropriate technical registration who is able to seal final versions of documents in accordance with ARS 32-125, or have acceptable consultant selection procedures in place to ensure selection of a qualified, registered consultant
- ▶ Have sufficient overall staffing capacity to accomplish the authorized project activities
- ▶ Have adequate resources, including equipment, to successfully complete the project
- ▶ Have written quality control (QC) procedures related to the authorized project activities (checks and balances)

- Have suitable staff training in place
- Can adhere to ADOT's processes and procedures for administering LPA projects
- Have an understanding of FHWA's consultant procurement requirements, including conflict of interest, the Brooks Act, and the qualification-based selection (QBS) process
- Have generally accepted accounting principles in place
- Have successfully completed annual single-audit reviews as required by the Single Audit Act Amendments of 1996 and the OMB Circular A-133, *Audits of States, Local Governments and Non-Profit Organizations*

LPAs may decide against applying for certification if they:

- Do not meet one or more of the above-mentioned factors
- Do not have political support for the application process or to administer projects
- Are unwilling or unable to pay the nonrefundable application review fee

Benefits of Certification

Certification benefits include but are not limited to the following:

- Ability to exercise greater control over projects
- Opportunity to thoroughly scope the project
- Ability to manage schedule and budget
- Opportunity to gain experience in administering FAHP projects
- Opportunity for staff to develop the knowledge, skills, and abilities needed to deliver projects successfully
- Opportunity to introduce an innovative approach to projects with ADOT and FHWA concurrence
- Opportunity to develop and implement QC practices

Certification Acceptance Application Process

LPAs that are applying for certification go through an evaluation process that includes a written application, payment of a \$20,000 nonrefundable application review fee, and an oral interview. LPAs must meet all qualification requirements to be approved under the Certification Acceptance Program; completing the process does not guarantee approval to become a certified LPA.

The application process includes the following steps and is summarized in Figure 4-2:

1. Attend the Certification Acceptance information workshop, which is held once a year in September by ADOT LPA Section.
2. Request and schedule a pre-application informational meeting with LPA Section in October to discuss the Certification Acceptance process. FHWA's Local Programs engineer and the appropriate FHWA area engineer should be invited. Candidate LPAs may want to consider attending the September workshop and scheduling the October informational meeting in year 1, in order to allow adequate time for document preparation in year 2 to meet the October application deadline.

3. Submit a completed Certification Acceptance Program application with the \$20,000 nonrefundable review fee to LPA Section by October 31 (contact LPA Section for a copy of the application form). The application will not be processed unless it is accompanied by all of the following required items:
 - Documentation of previously completed and maintained successful capital improvement projects that demonstrate the LPA's sufficient expertise and capability to perform/supervise the following in accordance with all applicable state, federal, and tribal laws, regulations, and requirements: design; environmental clearance documents; PS&Es; ROW or land acquisition; construction-administration phases of the project; and procurement of professional and construction services (as applicable)
 - Documentation of contracting authority
 - Organization chart identifying authority, responsibilities, and names and qualifications of key staff
 - Résumés demonstrating key staff capabilities and experience (LPAs should note that résumés must be updated and ADOT must be notified of any changes in key staff)
 - LPA project procedures manual (see the Developing Required Manuals section of this chapter for guidance)
 - Procedures for procurement, consultant selection, contractor selection, contractor administration, civil rights compliance, ROW acquisitions and certifications, utilities and railroads clearances, federal aid, and financial management, if needed. LPAs that would like to select their own consultants must also complete the ADOT ECS *Local Public Agency (LPA) Application Review Checklist*, which will be forward by LPA Section to ECS for separate approval for consultant selection activities. The most current version of the checklist must be used and is available on ECS's website (see the Resources list at the end of this chapter).
 - Detailed QC manual (see the Developing Required Manuals section of this chapter)

Applications will be reviewed by ADOT's Technical Advisory Committee (TAC), which consists of the LPA group manager, ADOT district engineer, representatives from each ADOT program area (e.g., Procurement, Construction, ECS, C&S, Environmental Planning, Utilities and Railroads, Right of Way, Civil Rights, Materials Group), and FHWA area engineer. The application will be reviewed by the ADOT and FHWA representatives in TAC according to the criteria outlined in the Evaluating LPA Qualifications section of this chapter.

4. Participate in an oral interview. ADOT will invite LPAs that meet evaluation criteria to participate in an oral interview, which will include the following:
 - An assessment of the LPA's understanding of the roles and responsibilities for administering federally funded LPA projects
 - A discussion/evaluation of past performance, project delivery processes and procedures, current staffing, overall knowledge of federal and state requirements, and overall LPA capacity and capability
5. Receive notification of the TAC's decision. ADOT will notify applicants in writing whether they have been approved or denied certification. Initially, approval is granted on a probationary basis, pending satisfactory performance on the first project completed under the Certification Acceptance Program. During the first project, ADOT will exercise a high degree of oversight to ensure the LPA's compliance with all applicable state, federal, and tribal laws, regulations, and requirements. Upon successful completion of the first project, the LPA will be granted full certification under the Certification Acceptance Program.
6. Execute an ADOT/LPA stewardship agreement (see the ADOT/LPA Stewardship Agreement section of this chapter for a list of items that should be included in this agreement). LPAs should actively work with LPA Section and ADOT technical sections for guidance on developing the stewardship agreement.

- Attend the Certification Acceptance Program training workshop with LPA Section (attendees must include the person in responsible charge, registered professionals, finance lead, civil rights administrator, and ROW lead)

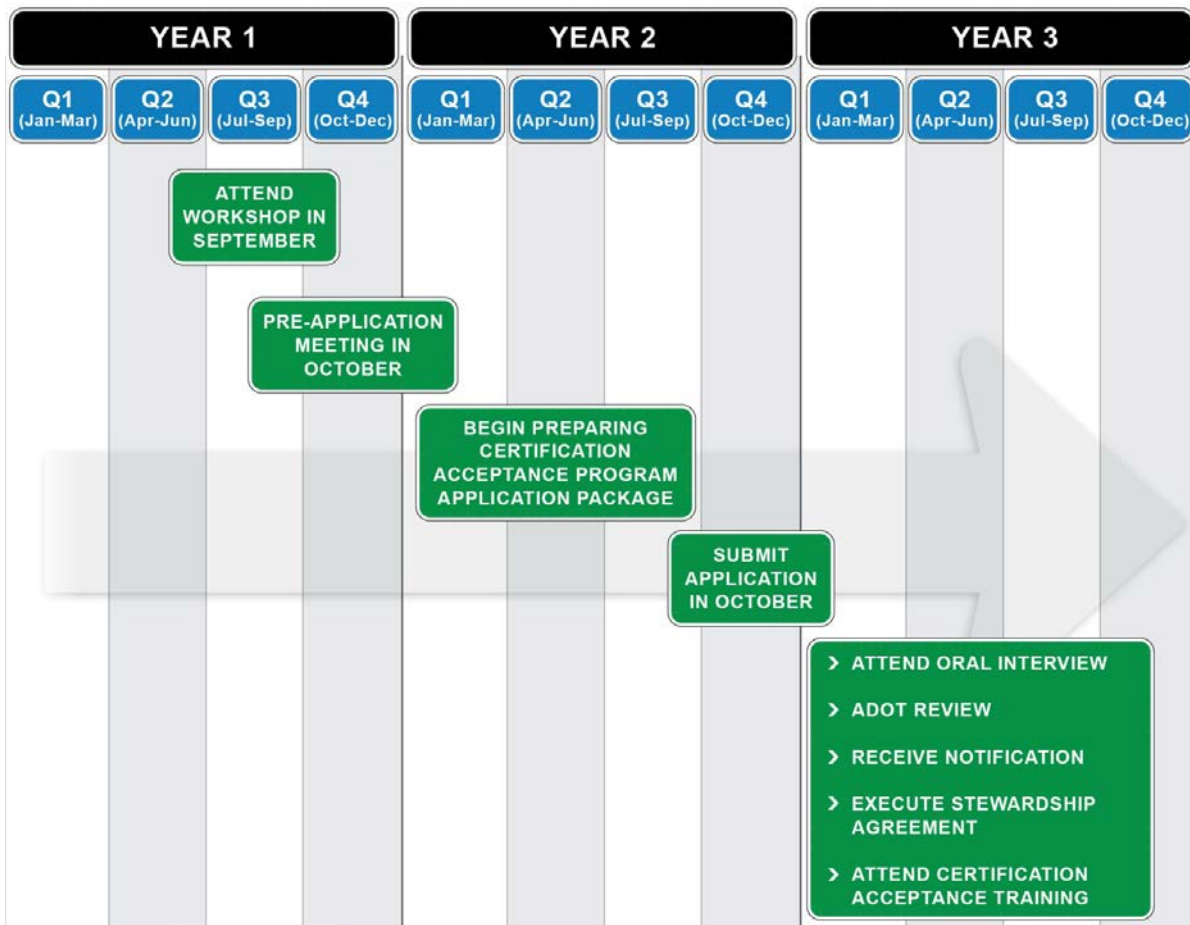


Figure 4-2 Certification Acceptance Application Process Timeline



For LPAs that would like to select their own consultants, the Certification Acceptance application package must include a completed ADOT ECS *Local Public Agency (LPA) Application Review Checklist*, which will be forward by ADOT LPA Section to ECS for separate approval. LPAs must use the most recent version of the checklist, which is available on the ECS website (see the Resources list at the end of this chapter).

Developing Required Manuals

LPAs applying for certification under the Certification Acceptance Program must provide an LPA project procedures manual and a QC manual as part of the application process. Following initial ADOT approval, LPA manuals should be revised in a timely manner following any updates to LPA project development or QC

procedures. The updated manuals must then be resubmitted to the ADOT LPA group manager for review and approval. In addition, manuals will be reviewed by ADOT every 4 years during the Certification Acceptance recertification review process. Therefore, LPAs should review and revise the manuals with any necessary changes in anticipation of the 4-year recertification review.

LPA Project Procedures Manual

A typical LPA internal project procedures manual should address the following topics:

- Federal-aid process
- Scoping
- Development/design
- Environmental clearances (including maintaining temporary and permanent environmental commitments during and after the project is completed)
- Utilities and railroads clearances
- Materials – quality assurance (QA)
- ROW acquisition
- Contracting, consultant selection, and procurement procedures
- Civil rights compliance
- Contract administration, construction, final acceptance, and final voucher
- Project closeout
- Financial management procedures
- Other administrative procedures

LPA Quality-Control Manual

A typical QC manual for LPA projects should address detailed QC procedures for the development/design and construction phases of the project development process. The LPA's QC lead must have the knowledge and ability to adequately perform QC functions (e.g., if a bridge engineer is designing a bridge, QC must be carried out by another individual with equal or greater qualifications in structural engineering experience). In addition to the LPA's QC process, the manual must include a method for documenting compliance for each project that states QC procedures were used.

Evaluating LPA Qualifications

Evaluation Criteria

LPAs planning to be certified will be evaluated according to the following criteria:

- LPA's resource availability
 - Ability to meet local match requirements, if applicable
 - Capability to finance all project costs before federal reimbursement

- Ability to provide other needed resources (e.g., hardware, software, materials-testing equipment)
- Staffing capacity with sufficient well-qualified personnel
- Effective written project development procedures
- Written procedures regarding federal-aid funding (e.g., authorization, notifying ADOT of bid award and closeout in a timely manner, notification for major change orders)
- Written QC program and procedures
- Adequacy of process for communicating effectively with ADOT and FHWA
- Adequacy of administrative structure
- History of orderly recordkeeping (e.g., documentation, including contractor staff interviews, daily diaries)

**CAUTION**

Changing priorities may impact or defer the certification.

Evaluation Results

Potential evaluation results are as follows:

- **Probationary Certification:** Qualified LPAs seeking certification for the first time will be granted probationary certification pending satisfactory performance on the first project completed under the Certification Acceptance Program. If a review of the first project demonstrates satisfactory performance, full certification will be granted. If a review of the first project demonstrates unsatisfactory performance, certification will be denied.
- **Full Certification:** Qualified LPAs that have demonstrated ongoing satisfactory performance will be granted full certification and will be reviewed for recertification every 4 years, or more frequently if ongoing issues or concerns regarding the LPA's ability to properly administer projects are identified.
- **Denial:** LPAs seeking certification for the first time will be denied if they are found to have insufficient qualifications or have not demonstrated satisfactory performance during administration of the first probationary project. LPAs undergoing the 4-year Certification Acceptance recertification review that are found to have major deficiencies or that fail to meet performance requirements in the course of developing projects will have their certifications denied. Any existing ADOT/LPA stewardship agreement is revoked when certification is denied.

Certification Acceptance Review

Once an LPA has received approval under the Certification Acceptance Program, ADOT's intent is for the approval to be permanent. However, each LPA's certification status will be reviewed every 4 years, or more frequently if ongoing issues or concerns regarding the LPA's ability to properly administer projects are identified. As part of the program review process, LPAs will be required to reapply and to provide updated supporting documentation for ADOT's evaluation of their performance over the preceding 4 years. A nonrefundable review

fee is due to ADOT when submitting documentation for the 4-year recertification evaluation. The amount of the recertification review fee is currently under deliberation.

Third-Party Project Administration

Under the Certification Acceptance Program, certified LPAs may administer projects on behalf of noncertified LPAs. Certified LPAs that are approached to serve as a third-party administrator should contact the ADOT project manager; approval is needed from ADOT and FHWA before third-party administration of a project. Third-party project administrators may charge a fee to review the project before determining whether to accept the third-party administrator role, as well as a fee for project administration. Projects administered using a third-party administrator must meet all applicable state, federal, and tribal laws, regulations, and requirements that apply to federally funded LPA projects; however, the third-party administrator will use its own procedures to administer the project. LPAs choosing the third-party method of project administration must execute an IGA with ADOT and the third-party administrator that specifies the details of project funding and administration.

Roles and Responsibilities

Roles and responsibilities during the Certification Acceptance application process are outlined in Table 4-1. In addition, approval authority for specific project tasks is summarized in Attachment 4-1, LPA Responsibility Chart: ADOT Administration verses Certification Acceptance.

Table 4-1 Roles and Responsibilities for Certification Acceptance Projects

Task	LPA	ADOT	FHWA
Certification Acceptance Program application	Complete and submit	Evaluate and approve/deny as part of TAC	Review and concur as part of TAC
Oral interview	Participate	Conduct	Participate
Notification of approval/denial	Receive	Notify LPA and FHWA	Receive
ADOT/LPA stewardship agreement	Coordinate and sign	Coordinate, prepare, sign, and approve	N/A
Certification Acceptance training workshop	Attend in September	Facilitate	Participate
Pre-application informational meeting	Request and schedule in October	Attend	N/A
LPA project procedures manual	Develop and submit	Review and approve	N/A
LPA QC manual	Develop and submit	Review and approve	N/A
Certification Acceptance review	Submit documents for certification review every 4 years	Review certification documents and approve/deny	Review and concur
Project administration	Administer projects; coordinate with ADOT as needed	Monitor and provide oversight; retain final approval authority of specific activities	Provide technical guidance, ensure federal compliance; retain final approval authority of specific activities

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RESOURCES

ADOT Engineering Consultants Section Local Public Agency (LPA) Application Review Checklist

<http://www.azdot.gov/docs/business/ecs-local-public-agency-review-checklist.pdf?sfvrsn=0>

FHWA and ADOT Stewardship and Oversight Agreement for Arizona

<http://www.fhwa.dot.gov/federalaid/stewardship/agreements/az.cfm>

<http://www.azdot.gov/business/engineering-and-construction/traffic/traffic-safety/stewardship-and-oversight-agreement-for-arizona>

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ATTACHMENT 4-1: LPA RESPONSIBILITY CHART: ADOT ADMINISTRATION VERSES CERTIFICATION ACCEPTANCE

Approval Action	Approval Authority		
	State Delegated Oversight Projects		Full Oversight
	ADOT Administered LPA Projects ("T" Projects)	Certified LPA Administered Projects ("D" Projects)	ADOT and Certified LPA Administered Projects ("S" or "F" Projects)
ADMINISTRATION			
Financial Management			
Authorization of funds (23 CFR 630.106)	FHWA	FHWA	FHWA
Modified project agreement—preliminary engineering through construction (23 CFR 630.110)	FHWA	FHWA	FHWA
Final acceptance letter from LPA to ADOT LPA Section or TE	ADOT	ADOT	ADOT
Final acceptance letter from ADOT Final Voucher Section to FHWA	FHWA	FHWA	FHWA
Final voucher report	FHWA	FHWA	FHWA
Section 1.9 waiver (23 CFR Section 1.9)	FHWA	FHWA	FHWA
Final contractor estimate	ADOT	Certified LPA (1)	FHWA
PROGRAM DEVELOPMENT			
Right-of-Way			
Interstate control of access (23 CFR 620. 203[h])	FHWA	FHWA	FHWA
Federal land transfer request (23 CFR 710.601)	FHWA	FHWA	FHWA
Withholding of payments (23 CFR 710.203[c]; 23 CFR 1.36)	FHWA	FHWA	FHWA
Protective buying and hardship acquisition (23 CFR 710.307, 503)	FHWA	FHWA	FHWA
ROW relinquishment request (23 CFR 620[b]; 23 CFR 710.401, 23 CFR 710.403)	FHWA	FHWA	FHWA
Disposal of federally funded ROW (23 CFR 710.403, 409)	FHWA	FHWA	FHWA
Railroad agreement (23 CFR 646.216[3][d])	ADOT	Certified LPA (1)	FHWA
Request for credits for early acquisition of ROW (23 CFR 710.501)	FHWA	FHWA	FHWA
Direct federal acquisition (23 CFR 710.603)	FHWA	FHWA	FHWA
Planning			
Ensure project is in STIP	ADOT	ADOT	ADOT
Verify eligibility for funding category	ADOT	ADOT	ADOT
Project assessment, scope, schedule, and budget	ADOT	Certified LPA (1)	ADOT
Authorization for federal-aid reimbursement of project expenditures	FHWA	FHWA	FHWA

Approval Action	Approval Authority		
	State Delegated Oversight Projects		Full Oversight
	ADOT Administered LPA Projects ("T" Projects)	Certified LPA Administered Projects ("D" Projects)	ADOT and Certified LPA Administered Projects ("S" or "F" Projects)
PROJECT DEVELOPMENT			
Environment			
Class II programmatic CEs (23 CFR 771.117) that fit within ADOT/FHWA programmatic agreement parameters	ADOT	ADOT	ADOT
Class II nonprogrammatic CEs (23 CFR 771.117)	FHWA	FHWA	FHWA
EAs (draft, final, FONSI) (23 CFR 771.119)	FHWA	FHWA	FHWA
EISs (NOI, draft, final, ROD) (23 CFR 771.123)	FHWA	FHWA	FHWA
Re-evaluations (programmatic CEs) (23 CFR 771.129)	ADOT	ADOT	ADOT
Reevaluations (nonprogrammatic CEs, EAs, EISs) (23 CFR 771.129)	FHWA	FHWA	FHWA
Section 4(f) determinations (23 CFR 774)	FHWA	FHWA	FHWA
150-day statute of limitations (23 USC 139[[1]])	FHWA	FHWA	FHWA
Section 106 actions (36 CFR 800)	FHWA	FHWA	FHWA
Design			
Authorize preliminary design funds	FHWA	FHWA	FHWA
Consultant agreements (23 CFR 172.7-172.9)	ADOT	Certified LPA	FHWA
Design exceptions that deviate from AASHTO design standards	ADOT (2)	ADOT (2)	FHWA
Geotechnical investigation reports (initial and final)	ADOT	Certified LPA	FHWA
Materials design report (initial and final)	ADOT	Certified LPA	FHWA
Drainage report (initial and final)	ADOT	Certified LPA	FHWA
Structures selection (initial and final)	ADOT	Certified LPA	FHWA
15%, 30%,60%, 95% plans	ADOT	Certified LPA	FHWA
Utility clearance letter	ADOT	ADOT	FHWA
ROW clearance letter	ADOT	ADOT	FHWA
Design concept report	ADOT	ADOT	ADOT
Hiring of consultant to serve in a "management" role (23 CFR 172.9[d])	FHWA	FHWA	FHWA
Innovative contracting requirements (SEP 14 and 15)	FHWA	FHWA	FHWA
PS&E and Advertising			
PS&Es (23 CFR 630.205, 23 USC 106)	ADOT	ADOT	FHWA
Authorize advertising for bids (23 CFR 635.112)	FHWA	FHWA	FHWA
Authorize utility or railroad force-account work (23 CFR 645.113, 646.216)	ADOT	Certified LPA (1)	FHWA
Bid analysis (engineer estimates)	ADOT	Certified LPA (1)	FHWA
Advertising period less than 3 weeks (23 CFR 635.112[b])	FHWA	FHWA	FHWA
Use of contracting method other than competitive bidding (23 CFR 635.104 and 204)	FHWA	FHWA	FHWA
Utility and railroad agreements (23 CFR 645.113 & 646.216)	ADOT	Certified LPA (1)	FHWA
Warranties (23 CFR 635.413)	ADOT	ADOT	FHWA

Approval Action	Approval Authority		
	State Delegated Oversight Projects		Full Oversight
	ADOT Administered LPA Projects ("T" Projects)	Certified LPA Administered Projects ("D" Projects)	ADOT and Certified LPA Administered Projects ("S" or "F" Projects)
PIFs			
PIF—statewide and project-specific use of proprietary products and processes (23 CFR 635.411)	ADOT	ADOT	FHWA
PIF and cost-justification letter—statewide and project-specific concurrence in use of publicly furnished material and expenses (23 CFR 635.407)	ADOT	ADOT	FHWA
Blanket PIFs	FHWA	FHWA	FHWA
PIF--use of force account (23 CFR 635.204, 205)	ADOT	ADOT	FHWA
PIF—use of mandatory borrow/disposal sites (23 CFR 635.407)	ADOT	ADOT	FHWA
PIF—use of publicly owned equipment (23 CFR 635.106)	ADOT	ADOT	FHWA
Construction			
Authorization of construction funds	FHWA	FHWA	FHWA
Approve addenda during advertising period (23 CFR 635.112)	ADOT	ADOT	FHWA
Concur in settlement of contract claims	ADOT	ADOT	FHWA
Concur in award of contract (23 CFR 635.114)	ADOT	ADOT	FHWA
Bid rejections (23 CFR 635.114)	ADOT	ADOT	FHWA
Termination of contracts (23 CFR 635.125)	FHWA	FHWA	FHWA
Construction engineering by LPA (23 CFR 635.105)	ADOT	ADOT	FHWA
Contract time extensions (23 CFR 635.120, 121)	ADOT	Certified LPA (1)	FHWA
Major changes and extra work (23 CFR 635.120)	ADOT	FHWA	FHWA
Minor changes and extra work (23 CFR 635.120)	ADOT	Certified LPA (3)	FHWA
Final inspection/acceptance of completed work (23 USC 114[a])—must notify ADOT/FHWA of final inspections	ADOT	Certified LPA	FHWA
Buy America waiver (23 CFR 635.410, ISTEA Sec. 1041[a], 1048[a]; 41 CFR 10 [a-d])	FHWA	FHWA	FHWA
Materials certification acceptance (23 CFR 637.207)	ADOT	Certified LPA (1)	FHWA
Subcontracting requirements (23 CFR 635.116[b])	ADOT	Certified LPA (1)	FHWA
Any contract change order that would make a change to committed DBE, EEO, and OJT/apprenticeship participation must involve ADOT's Civil Rights Office. The LPA must contact the ADOT project manager.	FHWA	FHWA	FHWA

Table Key: AASHTO = American Association of State Highway and Transportation Officials; CE = categorical exclusion; CFR = Code of Federal Regulations; DBE = Disadvantaged Business Enterprise; EA = environmental assessment; EEO = Equal Employment Opportunity; EIS = environmental impact statement; FONSI = Finding of No Significant Impact; LPA Section = ADOT Local Public Agency Section; NOI = Notice of Intent; OJT = on-the-job training; PIF = public interest finding; PS&Es = plans, specifications, and estimates; ROW = right-of-way; STIP = Statewide Transportation Improvement Program; TE = Transportation Enhancement; USC = United States Code.

Table General Note: All correspondence to FHWA must be sent via the ADOT project manager.

Table Notes: (1) Delegated to the certified LPA, ADOT receives a copy of the documentation. (2) Design exceptions for projects on the National Highway System, including the Interstate System, must be approved by FHWA. (3) Must be submitted to the ADOT district engineer.

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CHAPTER 5

Managing the Project

Introduction

Projects funded through the FAHP must be completed according to the standards established by FHWA and ADOT. This chapter describes project management principles that should be followed for all federally funded LPA projects. Best practices for managing projects efficiently and for ensuring that they are completed in compliance with FHWA and ADOT regulations are discussed for project scoping, as well as for each of the major project development phases of an LPA project: planning/programming, development/design, construction, and final acceptance. Figure 5-1 provides a visual overview of the key elements of effective project management.

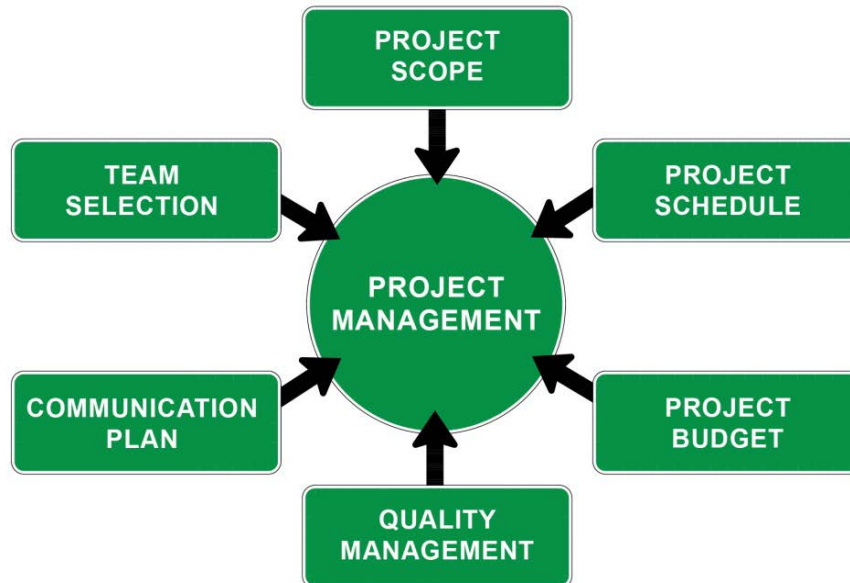


Figure 5-1 Key Elements of Project Management

Principles of Good Project Management

To effectively manage a project, LPAs should:

- Ensure that the project is fully scoped
- Develop a project management plan and follow it
- Participate in partnership meetings
- Begin work only after federal funding authorization has been obtained
- Ensure that the project team has the following required qualifications, certifications, and experience:
 - Contract authority
 - Person in responsible charge
 - Registered professionals (must be currently registered with the Arizona Board of Technical Registration; may be LPA staff or a consultant selected through approved procedures)
 - Staff who are qualified to carry out the following functions, as appropriate: procurement, consultant selection, contracting, civil rights compliance, ROW acquisition, and quality management
- Develop a succession plan that designates replacement staff for key positions
- Establish and maintain communication with ADOT staff; develop an escalation process to resolve conflicts and issues
- Know and understand pertinent regulations(see the FHWA Legislation, Regulations and Guidance Resources website referenced in the Resources list at the end of this chapter)
- Actively oversee consultants and contractors to ensure work is complete and timely and meets quality standards and regulatory requirements
- Establish and implement effective quality-management procedures
- Manage the project to meet approved project plans and specifications in order to successfully pass inspections and complete the final acceptance process
- Accurately complete all paperwork, retain it for required time frames, and submit it on schedule to ensure full reimbursement for all eligible costs
- Finish the project within required time frames

LPAs may be reimbursed for costs related to active management and oversight of a developing project as long as the project has received federal-aid authorization before the costs were incurred. Reimbursable management and oversight costs include those for substantial amounts of time devoted to review and approve actions necessary to continue, accomplish, and complete the work, and devoted to managing the efforts of subordinate staff, consultants, and contractors. However, small and incidental amounts of time to approve or advise on matters may not be eligible for federal-aid reimbursement. LPAs should contact their ADOT project manager to determine eligibility of costs on a per project basis.



Elements of a project management plan include:

- Project objectives
- Scope of work
- Schedule
- Financial plan
- Team organization and resource responsibilities
- Quality-management process
- Change-management process
- Communication plan
- Contingency and risk management plan

Best Practices during Scoping

Initial scoping occurs during the planning/programming phase and may take place years before project development. During the planning phase, projects may be scoped to consider whether they fit into regional or statewide LRTPs or to determine how they fit into systemwide needs. During programming, scoping consists of a formal PA. Fatal flaws are identified and the project is sufficiently defined to develop a realistic schedule and budget. Scoping during the programming phase should also provide details to identify environmental investigations, ROW clearances, and utility/railroad coordination that will be required during the design phase. This degree of scoping should be done for all projects, regardless of whether the project will ultimately be ADOT administered, self-administered, or administered by a certified LPA.



Local MPO/COG staff, ADOT district engineers, and ADOT LPA Section can provide valuable assistance to LPAs in developing an accurate, complete scope during the programming phase. See Appendix A for contact information for these entities.

LPAs may need to refine project scoping as part of preliminary engineering activities undertaken during the development/design phase. During preliminary engineering activities, a more detailed analysis may be conducted to further define project need; overall schedule and budget; and design alternatives, including the identification of applicable design standards, clearances, permits, and coordination needs.



Issues that result in project scope changes include those related to landownership, environmental regulations, design standards, and community expectations.

Scoping during the Design Phase

Preliminary Engineering

During preliminary engineering activities early in the design phase, scoping is conducted to refine and further evaluate project costs, schedule, and potential design and project alternatives, including an assessment of the clearances and permitting needs identified during the planning/programming phase. Typically, scoping is completed through the preparation of a PA or DCR in which project-specific evaluations can be made. The complexity of the project determines whether a PA or DCR will be required.

An environmental overview—an initial assessment of potential environmental resource conflicts—is also performed at this time. LPAs should note that project-related information generated in the planning/programming phase may be sufficient for preliminary engineering purposes, such as 30% design plans. Following a review of the documentation for ADOT-administered and self-administered projects, the ADOT project manager, in consultation with ADOT Environmental Planning Group (EPG) staff, will determine the adequacy of environmental information (see Chapter 7, Scoping, for additional information about the scoping process).



Federal funds may only be used for preliminary engineering activities, including procuring a consultant to conduct those activities, if previously authorized by FHWA. Any work conducted before the federal authorization effective date *will not be reimbursed*. The LPA must also pay any costs exceeding the amount of federal aid authorized.

LPAs should use the information gathered through the scoping process to identify relevant design standards, anticipated environmental and permitting requirements, and likely construction constraints. Additionally, a fully developed and detailed scoping document will provide a comprehensive account of the considerations used to generate potential project needs regarding public and private agency coordination, construction feasibility, and anticipated costs.

Scoping documents should provide detailed supporting information on topics such as:

- ▶ Current site characteristics
- ▶ Potential project footprint
- ▶ Major project components
- ▶ Potential design alternatives

- ▶ Environmental resource clearance requirements
- ▶ ROW clearance needs
- ▶ Utility and railroad coordination requirements
- ▶ Landownership
- ▶ Geotechnical investigation needs
- ▶ Hydrologic conditions
- ▶ Cost estimates



During the preliminary engineering phase, LPAs should carefully refine scoping completed during the planning/programming phase to ensure that all considerations and recommendations continue to meet current project needs.

Following an evaluation of the information gathered during preliminary engineering, a comprehensive project budget and schedule can be developed and compared to information generated during the planning/programming phase. The scoping results will also provide insight on the type and level of LPA staff and consultants that may be necessary for a project.



If at any point during scoping activities it is discovered that funding provided for the project is inadequate, the LPA should contact its MPO/COG representative and ADOT project manager to discuss amending the TIP and the STIP, respectively, to include the monies necessary to complete the project.

Best Practices during Development/Design

The use of appropriate design criteria and standards is a major factor in the initial success of a project. Analyses and assessments completed during scoping and preliminary engineering activities provide current, site-specific project information that will benefit LPAs during the development/design phase. Additionally, the use of ADOT submittal and review procedures will assist LPAs in meeting FHWA and ADOT requirements. The following list of best practices will assist LPAs in successfully completing the development/design phase:

- ▶ Develop the project according to applicable publications, policies, and standards, such as those developed by AASHTO, FHWA, ADOT, and applicable MPO/COG
- ▶ Comply with AASHTO design standards and criteria; use ADOT, MAG, PAG, or other local design standards and criteria, as applicable (ADOT-administered and self-administered projects must have their project specifications approved by ADOT C&S before advertising for bid)

- ▶ Identify the need for and obtain approval of any design exceptions as early as possible; exceptions are rare, and the absolute need for such exceptions must be documented fully for approval
- ▶ Be aware of the technical or environmental constraints affecting a project
- ▶ Understand and adhere to the LPA's ADOT-approved consultant selection procedures (applicable to certified LPAs and self-administering LPAs that have been approved to select consultants)
- ▶ Establish a review and comment resolution process
- ▶ Adhere to project schedule
- ▶ Ensure project team members have appropriate technical registrations/certifications
- ▶ Know submittal requirements and use submittal checklist provided by ADOT for each design stage (see Chapter 8, Development/Design, for this checklist)
- ▶ Make submittals in a timely manner, as required
- ▶ Ensure that the bid and award process adheres to all applicable requirements (see the Advertisement, Bidding, and Award section in Chapter 13, Construction, and Chapter 18, Contracting, Consultant Selection, and Procurement, for additional information)
- ▶ Provide contract modification requests to ADOT in a timely manner
- ▶ Follow the procedures outlined in ADOT's *Roadway Design Guidelines* and other applicable guideline documents (see the Resources list at the end of this chapter for links to guideline documents)

Best Practices during Construction

Activities completed during the planning/programming and development/design phases are prerequisites to the construction phase. The overall success of the construction phase depends on LPAs complying with all state and federal requirements and following established best practices. The following are best practices to be implemented throughout the construction phase for all project administration types (i.e., ADOT administered, self-administered, or Certification Acceptance):

- ▶ Know procedural requirements during the construction phase (see Chapter 13, Construction, for more information regarding ADOT and FHWA requirements)
- ▶ For ADOT-administered and self-administered projects, follow the procedures outlined in the ADOT *Construction Manual* (see the Resources list at the end of this chapter for a link to that document).
- ▶ Comply with all federal procurement requirements
- ▶ Hold a pre-construction meeting that includes a partnering session and use a defined agenda
- ▶ Develop an escalation process to resolve conflicts and issues (see the Resources list at the end of this chapter for links regarding ADOT's issue resolution process)
- ▶ Adhere to ADOT/FHWA-approved environmental mitigation measures and special conditions (e.g., those required by the Clean Water Act)
- ▶ Construct the project according to approved PS&Es
- ▶ Maintain consistent, detailed recordkeeping and reporting practices in adherence with applicable requirements
- ▶ Promote a safe working environment

- Comply with civil rights regulations
- Adhere to schedule
- Follow the ADOT process for change orders and submit requests in a timely manner
- Establish contractor use areas

During the construction phase, LPAs with ADOT-administered and self-administered projects are required to follow the procedures in ADOT's *Standard Specifications for Road and Bridge Construction* and the ADOT *Construction Manual*, which includes the use of the LCPtracker Labor Compliance system and ADOT's daily diary process. ADOT uses the LCPtracker system for ADOT-administered projects; self-administering and certified LPAs may use either the LCPtracker system or their own tracking system, if it has been approved during the self-administration application process or the Certification Acceptance application process, respectively.

Self-administering and certified LPAs must provide labor compliance documentation to ADOT either by using the LCPtracker Labor Compliance software (which is available to LPAs for a yearly membership fee or a per-project fee) or by providing the information in hardcopy form. LPAs may use ADOT's hardcopy forms or their own forms as long as the required information is included. For more information regarding the LCPtracker software and contractor reporting requirements, refer to the Contractor's Information page on the ADOT Construction Group's website (see the Resources list at the end of this chapter). LPAs should contact their ADOT project manager to obtain a license to use the LCPtracker software and to determine whether the cost of the software is reimbursable with federal-aid funds.

Best Practices during Final Acceptance

After construction is complete, the project work must be inspected and documentation must be reviewed to ensure that both have been completed in accordance with the approved contract documents and federal-aid requirements before the project obtains final acceptance. Final acceptance is required before final reimbursements and financial payments can be provided. Proper recordkeeping and reporting practices are considered vital to a successful final acceptance process. Best practices during final acceptance include the following:

- Knowing submittal and procedural requirements during the final acceptance and project closeout process (see Chapter 14, Final Acceptance, for more information regarding ADOT and FHWA requirements)
- For ADOT-administered and self-administered projects, following the final acceptance and project closeout procedures defined in the ADOT *Construction Manual* (see the Resources list at the end of this chapter for a link to that manual)
- Calculating contractor payment and settlements according to ADOT and FHWA guidelines. For more information on contractor payments, see:
 - Chapter 14, Final Acceptance of this manual
 - The Consultant and Contractor Payments section in Chapter 17, Financial Management/Reimbursement of this manual
 - Section 1207, Final Records and Reports (Project Closeout), of the ADOT Construction Manual
 - The Contractor's Information page on the ADOT Construction Group's website (see the Resources list at the end of this chapter)

- ▶ Preparing as-built plans according to ADOT requirements and process (see the Resources list at the end of this chapter for a link to the ADOT Red-Line and As-Built Procedure and Guidelines)
- ▶ Preparing and retaining proper project documentation in support of project closeout and project auditing

Following best management practices from initial scoping to final acceptance can improve efficiency and ensure quality results in the delivery of LPA projects.

RESOURCES

ADOT Construction Manual

<http://www.azdot.gov/business/engineering-and-construction/construction/ConstructionManual/construction-manual>

ADOT Construction Group Contractor's Information page

<http://www.azdot.gov/business/engineering-and-construction/construction/contractor%27s-information>

ADOT Issue Resolution Process

<http://www.azdot.gov/docs/business/issue-resolution-process.pdf?sfvrsn=0>

ADOT Issue Resolution Process Documents

<http://www.azdot.gov/business/programs-and-partnerships/partnering/forms-and-links>

ADOT LPA Section

<http://www.azdot.gov/business/programs-and-partnerships/LocalPublicAgency>

ADOT Red-Line and As-Built Procedure and Guidelines

<http://www.azdot.gov/docs/business/redlines-and-as-built-procedures-and-guidelines.pdf?sfvrsn=0>

ADOT Roadway Design Guidelines

<http://www.azdot.gov/docs/default-source/business/roadway-design-guidelines.pdf?sfvrsn=8>

FHWA Legislation, Regulations and Guidance Resources Website

<http://www.fhwa.dot.gov/resources/legsregs/index.cfm>

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CHAPTER 6

Planning/Programming

Introduction

This chapter covers the transportation planning and programming processes (Figure 6-1). The initial sections of this chapter define planning jurisdictions, describe the agencies that are responsible for transportation planning in Arizona, and outline the planning processes they use. The last half of this chapter identifies federal-aid funding sources that are relevant to planning and developing LPA projects. Scoping, the process of identifying the scale and costs of a project, is a highly important part of transportation planning, programming, and design processes, and is discussed in detail in Chapter 7, Scoping.

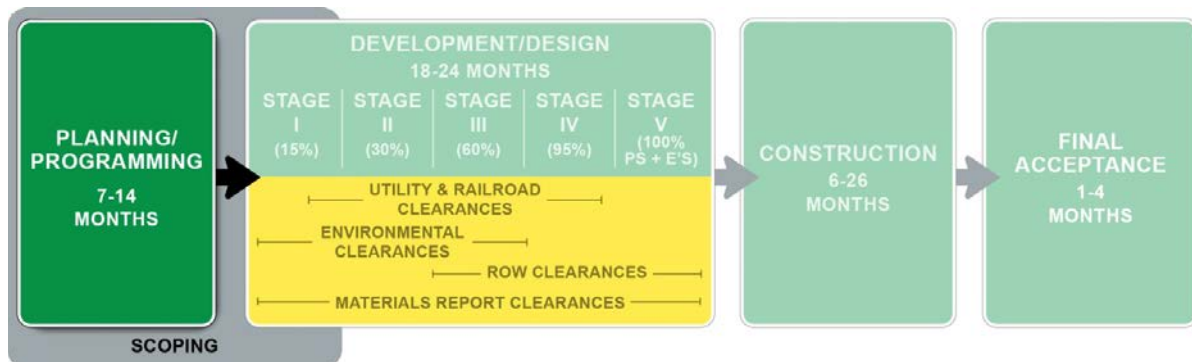


Figure 6-1 Planning/Programming in the Project Life Cycle

Overview of Transportation Planning and Programming

Transportation planning is an interdisciplinary process that systematically analyzes transportation issues and their impacts on Arizona’s social, economic, physical, natural, and political environment. The goal is to identify the improvements and infrastructure needed to ensure a safe transportation system that has the capacity to meet the State’s and various LPAs’ current and future needs.

The planning process is continuous, comprehensive, and cooperative (i.e., the three Cs), engaging residents and other stakeholders to provide input about their vision for the future of the state transportation system, as well as for specific projects. ADOT is the central hub for the State’s transportation planning process. ADOT works directly with local governments, regional planning agencies (e.g., MPOs and COGs), tribal governments, land-

management agencies, federal transportation agencies, and the public to identify needs, assess project impacts, and fund transportation projects. During planning and programming, ADOT also works directly with FHWA, the Federal Transit Administration (FTA), and the Federal Aviation Administration (FAA) to carry out federal transportation policy, to secure and administer federal funding, and to ensure that federally funded projects are developed according to federal regulations and standards (refer to 23 CFR 450 for more information on federal planning assistance and standards).

As Figure 6-2 shows, transportation planning and programming in Arizona is a three-step process that initiates with visioning and transitions to long-term planning and finally to short-term, fiscally constrained programs that commit funds to specific projects. Planning occurs on the regional and state transportation system level, as well as on the project level. Programming occurs on the project level and involves the development of short-term, fiscally constrained capital improvement programs that commit funds to specific projects. During programming, ADOT works to carry out federal transportation policy and administer federal funding requirements.



Figure 6-2 Overview of Transportation Planning and Programming

Planning Agencies and Organizations

ADOT

ADOT plays a pivotal role in transportation planning. ADOT is responsible for the statewide transportation planning process, including the development of the Statewide Transportation Planning Framework; the State LRTP; and the STIP. ADOT is also responsible for coordinating with state, local, tribal, and land-management agencies to carry out regional planning activities.

Three ADOT divisions have primary responsibility for the planning process: MPD; the Intermodal Transportation Division (ITD); and Communication and Community Partnerships (CCP). These three divisions work in collaboration with regional transportation planning entities and other stakeholders to ensure that interests are represented and input is incorporated into planning and programming efforts.

The State Transportation Board, composed of seven community members appointed by the Governor, has the authority to direct policy for the State Highway System (SHS), such as determining which routes are accepted into the system and which routes are to be improved. The State Transportation Board can issue revenue bonds for financing transportation improvements. It also adopts the Five-Year Program and the federally approved STIP each year (see the Statewide Planning section below for more information about the Five-Year Program and the STIP).

In addition to its planning role, ADOT is also responsible for designing, constructing, operating, and maintaining the SHS; providing administrative and funding support for the state’s public airports and operating one airport in the state aviation system (i.e., Grand Canyon National Park Airport); coordinating and funding state rail and transit projects; and assisting in funding some local transportation projects.

Multimodal Planning Division

MPD's primary objective is to help identify multimodal transportation needs and to recommend long-range improvements at a general planning level. MPD accomplishes these objectives through the sections described below.

Planning and Programming Section

The Planning and Programming Section works with LPAs, MPOs, COGs, federal agencies, tribal governments, the public, and other stakeholders to facilitate multimodal planning and programming activities. Additional responsibilities include:

- ▶ Managing transportation planning studies for the SHS
- ▶ Managing the Planning Assistance for Rural Areas (PARA) Program, which assists with transportation planning studies throughout rural Arizona
- ▶ Consultation and coordination activities with tribal governments
- ▶ Managing the Bicycle and Pedestrian Program
- ▶ Participating in the CANAMEX Corridor Coalition

The Planning and Programming Section is responsible for developing the Five-Year Program, which documents all projects on the SHS and is presented to the State Transportation Board for approval and funding. Following approval, projects from the Five-Year Program are then added to the STIP, along with projects from the regional TIPs. The Five-Year Program and the STIP development process is discussed further in the Statewide Planning section of this chapter.

Transit Section

The Transit Section administers several FTA grant programs, provides technical assistance and expertise to local transit agencies and decision makers, coordinates and funds state transit and rail planning efforts, and sets and monitors light rail system (and future modern streetcar system) safety standards.

Transportation Analysis Section

The Transportation Analysis Section collects, produces, and maintains information on the use and performance of Arizona's public road and street network, primarily focused on the SHS. The data collected is used to develop ADOT policies and support decisions related to public highway funding issues or private investment options. This section administers FHWA's Highway Performance Monitoring System Program, which is a national database of highway information that includes vehicle mileage and travel estimates for all of Arizona's public roads and streets. It maintains the Arizona Transportation Information System (ATIS), also known as ATIS Roads, which is a statewide street GIS (geographic information system) database that serves as the foundation for numerous planning studies and programs. This section is also responsible for producing travel-demand modeling data needed for transportation planning purposes.

Aeronautics Section

The Aeronautics Section provides airport development grants, loans, aviation pavement management, and aviation system planning services for airport development projects. The Aeronautics Section provides airport capital improvement programming for all airports in the state through the Planning and Programming Section. The programming is reviewed by the Priority Planning Advisory Committee (PPAC), approved by the State Transportation Board, and published in the Five-Year Program. The Aeronautics Section also coordinates airspace analysis with the FAA when any new roadway or expansion occurs near public or private airports.

Rail and Sustainability Section

The Rail and Sustainability Section is responsible for developing the Arizona State Rail Plan. The Rail and Sustainability Section focuses on planning for more sustainably built communities that incorporate rail development. The Arizona State Rail Plan identifies existing rail systems, determines infrastructure needs, and ensures that rail projects are included in the State's long-range planning process.

Research Center

The Research Center administers ADOT's research activities and oversees publication of the results. Anyone may submit a research idea in the following areas: environment, intelligent transportation systems, maintenance, materials and construction, planning and administration, structures, traffic, and safety. The Research Center houses the ADOT Library and the Approved Products Program, which coordinates the evaluation of products used by ADOT and maintains ADOT's Approved Products List.

Intermodal Transportation Division

ITD is made up of 9 regional engineering districts and a variety of groups for development, valley transportation, and operations. Groups within ITD include Bridge, Development Support (includes Joint Project Administration Branch), Engineering Technical, Environmental Planning, Right of Way, Roadway Engineering, Traffic Engineering, Statewide Project Management, LPA Section, Transportation Technology, Construction, Maintenance, Materials, Regional Freeway System, and Valley Project Management. For a map of ADOT's regional engineering districts, see Figure 6-3.

ITD oversees the design and construction of the SHS and is responsible for implementing and administering the project development process. ITD assists in developing the Five-Year Program in conjunction with MPD and ADOT Finance. ADOT ITD, MPD and Finance make recommendations to ADOT management, who then makes the final recommendations to the PPAC and the State Transportation Board.

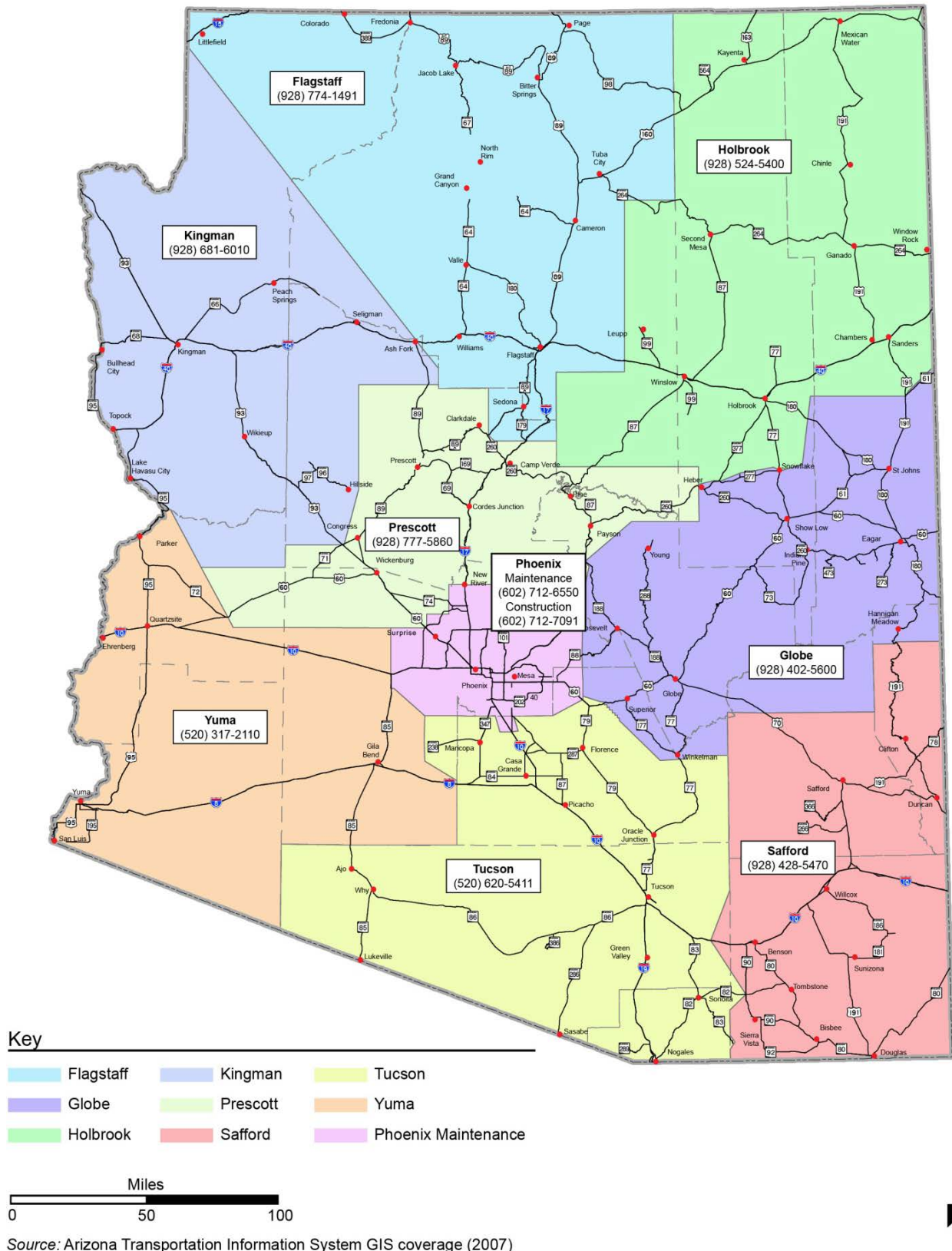


Figure 6-3 Map of ADOT Regional Engineering Districts

Communication and Community Partnerships

CCP supports the ADOT divisions' intergovernmental affairs with the elected officials and key staff of cities, towns, counties, and tribal governments throughout Arizona. CCP also ensures consistent, continuous, and maximum public participation in the State's transportation planning process. CCP manages ADOT's Partnering Outreach program, which consists of a process of collaborative teamwork between ADOT and public and private entities, as well as between members of ADOT. It allows groups to achieve measurable results through agreements and productive working relationships and provides structure for teams to establish a mission by using common goals and shared objectives. CCP is actively involved with ADOT-administered projects, but is also available as a resource for LPAs with self-administered and Certification Acceptance projects. For more information on the program, refer to the ADOT Partnering website referenced in the Resources list at the end of this chapter.

Regional Planning Organizations

By executive order from the Governor, Arizona was divided into several planning and development areas in response to federal planning requirements and to enable more uniform, comprehensive regional planning. Local governments have formed local planning organizations known as MPOs and COGs within each of these planning areas to facilitate the planning process. MPOs and COGs both operate from a regional standpoint and provide transportation planning services, but COGs also provide a variety of planning services beyond transportation. For a map of the MPOs and COGs in Arizona, see Figure 6-4.

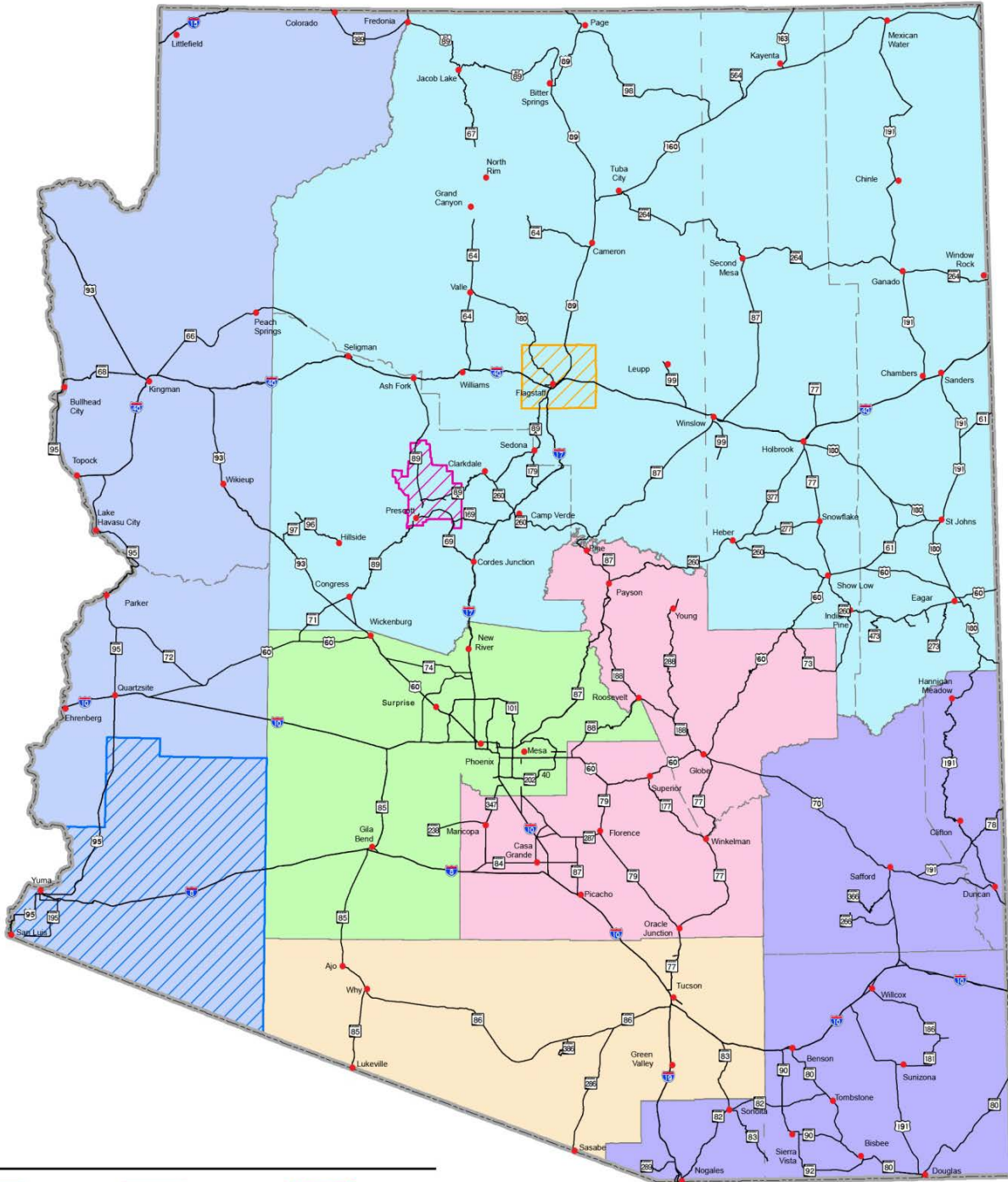
Councils of Governments

COGs are state-mandated cooperative groups formed to foster mutual decision making for LPAs. Membership is open to all cities, towns, counties, and tribal governments in the planning area. These planning organizations serve multiple functions specific to the region, such as environmental management and human health services, but transportation planning is their central responsibility.

In Arizona, there are six COGs:

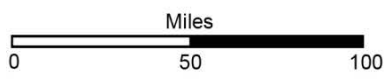
- ▶ Central Arizona Association of Governments (CAAG)
- ▶ Northern Arizona Council of Governments (NACOG)
- ▶ SouthEastern Arizona Government Organization (SEAGO)
- ▶ Western Arizona Council of Governments (WACOG)
- ▶ Maricopa Association of Governments (MAG)
- ▶ Pima Association of Governments (PAG)

MAG and PAG are COGs, but they also serve as the designated MPOs for transportation planning in their regions.



Key

- WACOG
- NACOG
- MAG
- CAAG
- PAG
- SEAGO
- CYMO
- FMPO
- YMPO



Source: Arizona Transportation Information System GIS coverage (2007)



Figure 6-4 Map of MPOs and COGs

Metropolitan Planning Organizations

Areas with populations of 50,000 or more are required to establish an MPO, according to 23 USC 134 and Section 8 of the Federal Transit Act, as amended (these federal planning regulations are codified in 23 CFR 450). An MPO is the federally designated lead agency for transportation planning in the metropolitan areas and is an excellent source for specific policies and procedures concerning federal-aid funding. MPOs are assigned responsibilities specific to transportation, such as fostering a “continuing, cooperative, and comprehensive transportation planning process that results in plans and programs that consider all transportation modes and supports metropolitan community development and social goals” (23 CFR 450). MPOs are also responsible for developing RTPs and TIPs, which are discussed in more detail in the Overview of Planning/Programming Process section of this chapter. For more information on MPOs, refer to FHWA’s Metropolitan Planning website and the FHWA Metropolitan Planning Frequently Asked Questions, as referenced in the Resources list at the end of this chapter.

MPOs that have between 50,000 and 200,000 residents include the Flagstaff Metropolitan Planning Organization (FMPO), the Central Yavapai Metropolitan Planning Organization (CYMPO), and the Yuma Metropolitan Planning Organization (YMPO).

MPOs with more than 200,000 residents are designated by FHWA as transportation management areas (TMAs). MAG and PAG are designated as TMAs and must comply with special requirements regarding congestion management systems, project selection, and certification.



MPOs/COGs play an important role in LPA project planning and programming. They are excellent sources for information on specific policies and procedures concerning federal-aid funding.

Overview of Planning/Programming Process

The planning/programming process consists of steps necessary to accurately evaluate potential LPA projects, identify and include LPA projects in state and regional transportation plans and programs, and ultimately receive federal-aid funding authorization.

As shown in Figure 6-5, the planning/programming process begins with identifying viable projects by evaluating potential issues and opportunities through scoping. Once a project has undergone preliminary scoping and the LPA has identified a potential funding source, the LPA should provide the project information to its local MPO/COG for confirmation of funding-source eligibility. For some projects, additional confirmation of eligibility may be required from FHWA; LPAs should contact the applicable MPO/COG for further guidance.

The project will go through the MPO’s/COG’s competitive prioritization process before inclusion in the TIP. The MPO/COG will then submit the TIP to ADOT for review and inclusion in the STIP. For LPAs that desire to self-administer project activities, it is recommended that LPAs begin the self-administration application process once

their projects are listed in a TIP (see Chapter 3, Self-Administration, for information on the self-administration process). Projects from regional TIPs and ADOT's Five-Year Program are added to the STIP, which is developed by ADOT and approved by FHWA and FTA. It is at this point in the planning/programming process that an LPA should work with their ADOT project manager to request TRACS and federal-aid numbers, execute an IGA, and request federal-aid authorization (see the Federal-Aid Funding Authorization section of this chapter for information on authorization).

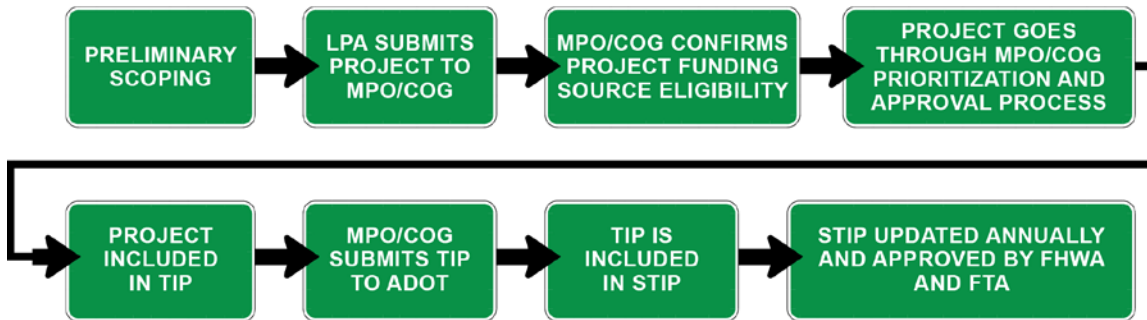


Figure 6-5 Planning/Programming Process for LPAs

Key documents in the transportation planning/programming process include the Statewide Transportation Planning Framework; the State LRTP; the Five-Year Program; the STIP; and the RTPs and TIPs, managed by the MPOs and COGs. Table 6-1 summarizes each of these plans, the planning periods they cover, and which agencies have primary responsibility for producing them. The sections below discuss the steps involved in regional and state transportation planning in Arizona.

Table 6-1 Transportation Planning Documents

Planning Document	Purpose	Planning Period	Update Cycle	Document Developer
RTP	Outlines the region's long-term vision for transportation; helps guide transportation investment decisions	20 years	Varies by region	MPO/COG
Regional TIP	Serves as the region's capital improvement program for transportation	At least 4 years (varies by region)	At least every 2 years (varies by region)	MPO/COG
Statewide Transportation Planning Framework	Outlines the State's long-term vision for transportation; helps guide transportation investment decisions	40 years	As needed	ADOT
State LRTP	Outlines the State's long-term priorities for transportation; helps guide transportation investment decisions	20 to 25 years	Every 5 years	ADOT
ADOT Five-Year Program	Serves as ADOT's capital improvement program	5 years	Annually	ADOT
STIP	Serves as the State's capital improvement program for transportation. Includes projects identified in regional TIPs and the Five-Year Program	4 years	Annually	ADOT

Regional Planning and Programming

MPOs are responsible for the development of RTPs and TIPs that conform to the State LRTP and STIP processes (for more details on the State LRTP and the STIP, see the Statewide Planning section of this chapter).

Regional Transportation Plans (Metropolitan Transportation Plans)

FHWA provides federal funding for regional planning, which includes development of RTPs (also known as metropolitan transportation plans), to MPOs in areas that have more than 50,000 people. RTPs cover all major modes of transportation—including freeways/highways, streets, mass transit, airports, bicycles and pedestrian facilities, movement of goods, and special-needs transportation. They also address other related issues, such as transportation-demand management, system management, safety, security, and air quality conformity analysis (for TMAs and air quality nonattainment and maintenance areas). RTPs are developed with significant public input, as well as input from local governments, businesses, public-interest groups, tribes, and federal land-management agencies. The plans identify the anticipated use for each mode of travel and make recommendations regarding the general location where major new facilities should be constructed; regarding if and where improvements to the street system should be considered; and regarding the nature, size, and coverage of the transit system. RTPs may also include cost estimates, implementation responsibilities, and phased development schedules.

Transportation Improvement Programs

Regional TIPs include all projects that have an FHWA-approved funding source as identified in Titles 23 and 49 CFR. TIPs include all regionally significant projects, regardless of whether they are federally funded. TIPs focus on capital improvement projects (reconstruction, new construction, widening, and resurfacing) but also contain transit projects.

LPA submit projects to their respective MPO/COG for inclusion in a TIP. Projects contained in a TIP are developed in cooperation with regional transportation TACs, executive boards or administration committees, and ADOT MPD. Projects move through these committees for planning and programming in accordance with ADOT and federal-aid procedures. The duration of each TIP and its update schedule varies from region to region, but federal regulations require TIPs to cover at least a 4-year program of projects and be updated at least every 2 years. Each TIP is approved by the appropriate regional council. Projects included in approved TIPs become part of the STIP once the TIPs are submitted to ADOT, and ADOT sends a formal letter to FHWA or FTA, as applicable. The STIP development process is discussed further in the Statewide Transportation Improvement Program section of this chapter.



FHWA will not authorize federal-aid funding for an LPA project unless it is listed in a TIP and in the STIP.

Adding Projects to Transportation Improvement Programs

LPAs should consult with their regional MPO/COG for instructions on the process and deadlines for adding projects to a TIP. Many MPOs/COGs hold pre-application workshops that allow LPA staff to work directly with MPO/COG planning staff as they prepare project applications. As described in more detail in the Funding section of this chapter, many of the funds that are available for LPA projects are provided on a first-come, first-served basis. Other funds are available on a competitive basis. LPAs should consult with their local MPO/COG for instructions on how to apply for funding for competitively selected projects and for the evaluation guidelines their MPO/COG uses to select which projects to fund.



For information and guidance about how to add projects to regional TIPs, contact the appropriate regional MPO or COG.

Making Changes to Projects in Current Transportation Improvement Programs

TIPs are living documents that must be amended throughout the year to reflect changes in the projects they contain. TIP amendments may be made to add or delete projects, to reflect cost increases or decreases or changes in the project schedule, or to make administrative corrections. LPAs should consult with their MPO/COG for instructions on how to provide changes to projects already contained in a TIP.



Processes for making changes to projects already listed in regional TIPs vary. For information and guidance, contact the appropriate regional MPO or COG.

Statewide Planning

Statewide Transportation Planning Framework

Beginning in 2008, ADOT worked with individuals and organizations throughout Arizona to develop a shared vision for the state's transportation future, referred to as "Building a Quality Arizona" (bqAZ). This visioning process resulted in the 2010 Statewide Transportation Planning Framework, which will guide transportation planning decisions through 2050. As part of the bqAZ process, four regional transportation framework studies looked at ways to plan for growth by examining the link between land use and community and economic development in relation to transportation opportunities for each region. Scenario planning helped vet transportation alternatives for enhancing mobility and sustaining Arizona's quality of life. The bqAZ vision feeds directly into the "What Moves You Arizona" initiative, designed to help implement the Statewide Transportation Planning Framework by analyzing core transportation needs in relation to funding and investment decisions.

“What Moves You Arizona” is the State LRTP. Information about bqAZ and “What Moves You Arizona” is available online (see the Resources list at the end of this chapter for links to more information).

State Long-Range Transportation Plan

Title 23 CFR 450 requires that the statewide transportation planning process include development of an LRTP, which must be developed in coordination with the MPOs/COGs in the state. Arizona’s LRTP initiative (i.e., “What Moves You Arizona”) covers a 25-year planning horizon. The State LRTP provides estimates of transportation needs and funding, along with strategic guidance for how ADOT will make investment decisions over the next 25 years. It is a cooperative effort and considers elements and connections among highways, public transit, nonmotorized modes, rail, commercial motor vehicles, waterways, and aviation facilities. The State LRTP is adopted by the State Transportation Board and is updated every 5 years.

Five-Year Transportation Facilities Construction Program for Highways and Airports

The Five-Year Program is ADOT’s capital improvement program. The Five-Year Program is updated annually and approved by the State Transportation Board in June of each year. All projects in the first 2 years of the program will be fully funded and ready to advertise within the year they are programmed. The last 3 years of the program help establish an implementation plan for projects moving through various development phases before construction. The program is developed with extensive public input, and each year the program is evaluated and updated through a comprehensive review process.

Projects are recommended for the Five-Year Program through ADOT’s priority programming process. Projects considered for inclusion in the Five-Year Program fall into several categories, including projects that are developed by MAG and PAG using funds allocated from voter initiatives and projects in which ADOT works with a local entity to create a needed project (e.g., projects on major corridors and spot improvements).

Following public review, the Five-Year Program is reviewed by the PPAC, which is a statutory public body appointed by the Director of ADOT and subject to ARS Title 38 Open Meeting Laws of Arizona. The Five-Year Program is then reviewed by the State Transportation Board before final approval in June of each year. This way, residents, LPAs, state legislators, COGs and MPOs, planning organizations, chambers of commerce, the business community, and ADOT planners and engineers all contribute to the development of the Five-Year Program. ADOT planners and engineers use technical data from the ADOT pavement management system, traffic counts and projections, truck studies, accident studies, route corridor studies, and the State Highway Plan to help identify highway needs.

Recommended changes to the schedule, scope, or budget of a project at any stage in the project development process are reviewed and approved by the Project Review Board before proceeding to PPAC for individual modifications to the Five-Year Program. The State Transportation Board gives final approval to any changes to the Five-Year Program.

Statewide Transportation Improvement Program

Federal law requires the development of a STIP, which is a project-specific, fiscally constrained 4-year capital improvement program made up of all projects that are contained in current regional TIPs, as well as projects in ADOT's Five-Year Program. All highway and transit projects in the state that are funded under Title 23 USC and the Federal Transit Act must be included in a federally approved STIP. FHWA will not authorize federal-aid funding for an LPA project unless it is contained in a TIP and in the STIP.

Projects in the STIP must be consistent with the State LRTP, regional TIPs, and the Five-Year Program. The STIP must reflect expected funding and priorities for programming, including transportation enhancements. Additionally, in air quality nonattainment areas, such as Maricopa County, only projects that meet air quality requirements spelled out in the Transportation Conformity Rule of 1995 may be included in the STIP. The STIP is updated annually and is approved by FHWA and FTA. See Figure 6-6 for a general timeline of planning/programming activities.



LPA projects must be in a fiscally constrained, air-conforming plan and program in order for FHWA to approve the NEPA documentation for the project. See Chapter 9, Environmental Clearances, for more information on NEPA documentation requirements.

Every year, the MPOs, COGs, and the U.S. Bureau of Indian Affairs (BIA) (on behalf of the tribal governments) submit their TIPs to ADOT for inclusion in the STIP. Therefore, the STIP represents a compilation of all the regional TIPs. The STIP also includes the anticipated funding and priority projects that have gone through the planning and programming process in accordance with ADOT and federal-aid procedures. Including projects in the STIP is necessary in order to authorize and obligate federal-aid funds. MPOs and COGs should submit their TIPs to ADOT MPD no later than August 15th of each year so that the STIP can be developed and reviewed by the public before being submitted to FHWA and FTA (if necessary) by October for approval. Updates to the existing TIPs (i.e., TIP amendments) should also be submitted to MPD for review.

Rural Transportation Planning

ADOT is committed to meaningful dialogue with local officials in rural communities and tribal governments during transportation planning and programming activities; therefore, in support of this commitment, it has prepared the Transportation Consultation with Rural Officials policy. This policy includes regular meetings within each MPO/COG region regarding planning activities, such as the development of the State LRTP, the Five-Year Program, and the STIP. The policy also includes participation with Arizona's Native American tribes and the Rural Transportation Advocacy Council. The Transportation Consultation with Rural Officials policy is available on the ADOT website (see the Resources list at the end of this chapter for links to more information).

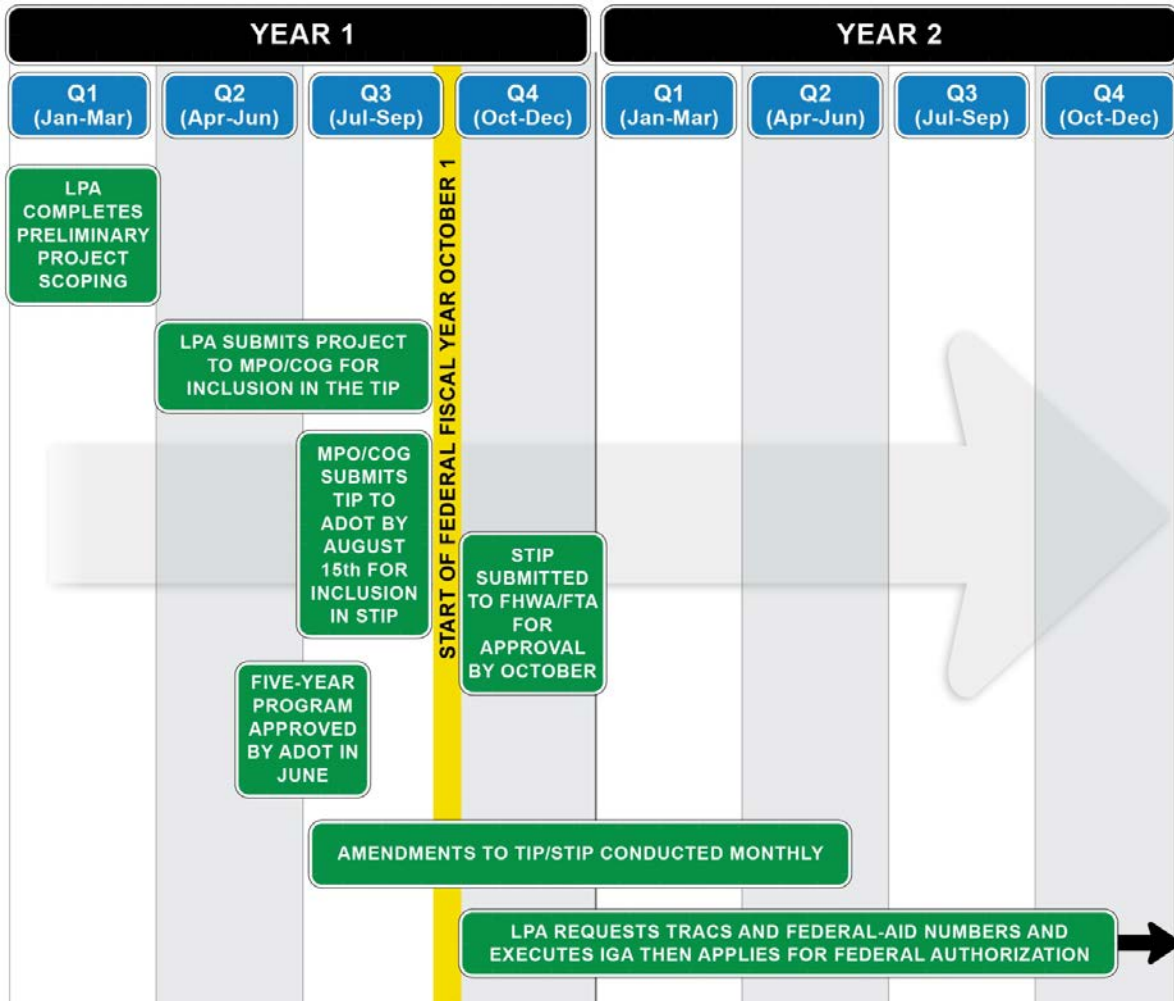


Figure 6-6 Planning/Programming Process Timeline

In addition to its commitment to regular consultation, ADOT also offers support for rural communities through the PARA Program, which funds transportation studies for counties, cities, and towns located outside the FHWA-approved urban planning boundaries of TMAs, as well as for all Arizona tribes. Additional details about the PARA Program are provided in the Funding section of this chapter.

Technical Assistance to Rural Communities

One of the most valuable ways ADOT supports rural communities is through technical assistance provided by ADOT planners and engineers. In recent years, ADOT has strengthened its level of outreach to rural areas by assigning regional planners to serve as liaisons to MPOs and COGs. Regional planners provide technical expertise, manage regional ADOT planning studies, and participate as voting members on regional ADOT TACs. ADOT district engineers also play a key role. They attend city and county government, MPO/COG, and tribal meetings; interact with local officials and stakeholder groups; and consult on technical matters as requested. ADOT district engineers work with MPOs and COGs to identify projects for possible inclusion in the Five-Year Program.

Tribal Transportation Planning

ADOT is committed to meaningful consultation with tribal officials throughout the local, regional, and statewide transportation planning processes. ADOT consults with tribes in accordance with federal legislative acts, executive orders, and policies; the Governor's Executive Order 2006-14 on Consultation and Cooperation with Arizona Tribes; ADOT's Department-Wide Native Nation/Tribal Government Consultation Policy; and the Transportation Consultation with Rural Officials Policy, which includes consultation with tribal officials. ADOT consultation, cooperation, collaboration, and transportation support for tribes is outlined below.

Identification of Tribal Critical Needs

As part of the Statewide Transportation Planning Framework, ADOT developed a formal list of tribal critical needs based on input received from tribal officials during the Governor's Tribal Summits on Transportation and Growth. The list also included transportation projects identified through the BIA-Indian Reservation Roads Transportation Program for each tribe, as well as projects on state and county road systems within tribal land areas. Tribal-identified improvements and a discussion of critical issues like mobility and connectivity for tribal governments were included in the May 2008 *Statewide Preliminary Critical Needs Definition Report*.

Funding and Technical Assistance to Tribal Governments for Transportation Planning

ADOT provides funding and technical planning assistance through the PARA Program for planning activities such as updating an existing tribal transportation plan, addressing a specific transportation planning need, or conducting a transit study. Under the PARA Program, ADOT provides 100% of planning study costs and project management oversight in coordination with tribal planning officials. Other funding sources available to tribes are listed in the Funding Matrix at the end of this chapter (Table 6-3). Technical assistance is also provided by the Aeronautics and Transit Sections.

Support for Tribal Membership in Metropolitan Planning Organizations and Councils of Governments

ADOT actively works with MPOs and COGs throughout the transportation planning process. Tribes may become members of local MPOs and COGs, which can provide them with additional opportunities to participate in the regional planning process and funding opportunities. Tribal projects funded through the MPOs and COGs are included in the respective MPO/COG TIP.

Partnership for Tribal Transportation Planning

ADOT is an active member of a number of organizations that are tribal transportation planning partners in the state. More information is available about these organizations in the Resources list at the end of this chapter.

Partnerships include the following:

- **Arizona Tribal Strategic Partnering Team (ATSPT).** ATSPT was formed in June 1999 as a cooperative effort among internal ADOT sections and groups, as well as nonstate stakeholders such as FHWA, the Inter Tribal Council of Arizona (ITCA), and BIA to address tribal-related transportation issues and improve state-tribal relations in transportation. ATSPT meets quarterly and conducts an Annual Statewide Tribal Transportation Forum. See the Resources list at the end of this chapter for links to more information.

- ▶ **Navajo Nation Transportation Partnership.** This partnership includes representatives from ADOT; the Navajo Division of Transportation; BIA; FHWA; the Hopi Tribe; and Coconino, Navajo, and Apache Counties. The partnership consists of a steering committee and subtask teams. The steering committee meets quarterly and the partnership as a whole meets once a year.
- ▶ **Hopi Tribe Transportation Partnership.** This partnership includes representatives from ADOT, BIA, FHWA, Coconino and Navajo Counties, the Navajo Nation, and the Navajo Division of Transportation. The partnership consists of a steering committee and subtask teams. The steering committee meets quarterly, and the partnership as a whole meets once a year.
- ▶ **San Carlos Apache Tribe Transportation Partnership.** This partnership includes representatives from ADOT, the San Carlos Apache Tribe, county and federal governments, railroads, and private organizations. The partnership consists of a steering committee and subtask teams. The steering committee meets quarterly, and the partnership as a whole meets once a year.
- ▶ **ITCA Transportation Working Group.** The ITCA Transportation Working Group was formed in 1998 to focus on expanding tribal consultation, coordination, and cooperation between tribes and federal and state agencies on transportation-related issues. ITCA's formation of the Transportation Working Group and the hiring of a dedicated transportation program coordinator to oversee the group have been critical. ADOT participates in the Transportation Working Group meetings on an ongoing basis.
- ▶ **Arizona Commission of Indian Affairs (ACIA).** The ACIA is the State of Arizona's tribal liaison agency with the 22 federally recognized tribes/nations. The ACIA Board is made up of tribal representatives appointed by the Governor. Additionally, the ACIA consists of ex officio members that serve in an advisory capacity to the ACIA Board. The MPD planner serves as an ex officio member to the ACIA Board on behalf of the ADOT Director.
- ▶ **Governor's Policy Advisor for Tribal Affairs.** The Governor of Arizona has established the position of tribal policy advisor as part of the Governor's Office of Equal Opportunity. As a liaison, the advisor performs statewide consultation on issues, assists state agencies in interpretation of state consultation policies, serves as a statewide resource for tribes, disseminates information to tribes as required by statute, and supports the strengthening of tribal capacity for community, economic, and workforce development.

Direct Assistance to Tribes

ADOT works to ensure that tribal officials/staff are represented in its various statewide and regional programs and on its project TACs. This provides opportunity for greater collaboration and input into development of the policy aspect of transportation planning. ADOT also works to encourage tribal participation at meetings of the State Transportation Board, which makes final decisions on projects that will be funded in the Five-Year Program and the STIP.

- ▶ **ADOT tribal coordinator/liaisons.** There are several designated tribal coordinators/liaisons within ADOT. They are located in MPD, EPG, CCP, and the Right of Way Group (ROW Group). These coordinators/liaisons work closely with tribal officials and staff to address specific types of issues within their realm of expertise. Tribal coordinators/liaisons collaborate with ADOT district engineers to address planning and project-related issues.
- ▶ **District engineering staff.** District engineers are a primary point-of-contact for tribal governments. ADOT district engineers, or their representatives, regularly attend tribal transportation committee meetings and local community meetings and also meet on an as-needed basis with tribal officials to address transportation issues, project implementation, construction, and highway operation/maintenance.

Maintenance engineers, senior resident engineers, and district development engineers are also actively involved with tribes and are available to provide assistance.

- ▶ **Historic Preservation staff.** ADOT EPG's historic preservation specialists work with tribes to ensure that all construction and maintenance projects associated with the SHS consider project-related effects on significant historic and prehistoric cultural resources and comply with federal and state historic preservation laws. ADOT has developed the ADOT *Historic Preservation Handbook* to guide these efforts (see the Resources list at the end of this chapter for a link to that handbook).

Importance of Accurate Scoping during the Planning/Programming Process

Scoping is the process of defining a project's purpose and need, budget, schedule, scale, and any anticipated issues and opportunities. Projects must be evaluated multiple times: during the planning process, during the programming process, when funds are committed, and during the design phase of project development. Accurate scoping and evaluation is essential to ensure that sufficient federal-aid funding and local match funding are available to complete the project as programmed and scheduled. Insufficient scoping, including underestimating project budgets, can result in projects that are underfunded and that cannot be completed as planned. ADOT encourages LPAs to thoroughly scope projects and evaluate cost estimates before projects are included in regional TIPs and the STIP.

Detailed information about the scoping process during the planning, programming, and design phases is included in Chapter 7, Scoping.

Funding

This section describes federal-aid funding sources commonly used for planning and developing LPA projects; the funding sources described in this section are also summarized in the Funding Matrix at the end of this chapter (Table 6-3). While this manual does not provide information on all available federal funding sources or specific details about how to apply for funds from specific programs, the descriptions provided below should help LPAs determine which funding categories may apply to their projects. LPAs should consult with their regional MPO/COG for guidance on how to apply for specific funding. ADOT MPD planners are also available to discuss funding eligibility.

Overview of Federal-Aid Funding

Federal-aid funds for LPA transportation projects are available through a variety of funding programs and grants administered by FHWA (for highway projects), FTA (for transit projects), and FAA (for aviation projects). Federal-aid transportation funds may only be expended after authorization for specified project activities, and they operate on a reimbursement basis. During the project development process, federal funding may be used after receiving authorization for general transportation planning; preliminary engineering/design; environmental, utility, or railroad clearances; ROW acquisition; construction; and auditing activities. While the laws and regulations regarding the use of federal-aid funds discussed in this manual apply to all programs and grants, the ADOT and FHWA specific policies and procedures discussed apply only to funding programs administered by FHWA either directly or via ADOT. This manual focuses on funding programs administered by ADOT and FHWA that are commonly used by

LPAs, but other commonly used non-FAHP programs and grants are also mentioned in this chapter for informational purposes. If the funding program or grant being used for a given LPA project is administered by FTA or FAA, LPAs should contact the appropriate program manager as listed in Table 6-3 for information on FTA- and FAA-specific policies and procedures since they may differ from those required by FHWA.

Project costs eligible for reimbursement with federal funds are defined by Title 23 USC; by applicable OMB cost principles, 49 CFR 18.22 and 2 CFR 225 (formerly OMB Circular A-87); by agency program regulations; and by the terms of the IGA. Federal funds do not have to be used for all phases of the project. There is no requirement to use federal funds for construction, for example, simply because they were used for earlier project phases. However, if federal funds have been used for preliminary engineering or environmental clearances and an LPA later chooses not to use federal funds for construction, federal environmental requirements still apply, such as those required by Section 4(f) of the U.S. Department of Transportation Act of 1966 or by NEPA of 1969.

Federal-Aid Highway Program

LPA projects may be eligible for federal funding from one of the many programs within the FAHP. The FAHP consists of a group of separately funded programs administered by the FHWA that each have certain activities for which that funding may be used. FHWA receives contract authority to obligate FAHP funds out of the Highway Account of the Highway Trust Fund, plus any Highway Trust Fund supplemental appropriations for the Emergency Relief (ER) Program, through an authorization act, which typically covers a several-year period. For example, SAFETEA-LU is an authorization act that contains a number of funding programs, including those administered by FHWA for highway projects. Roadways eligible for FHWA-administered funds under SAFETEA-LU include:

- ▶ The NHS
- ▶ The Interstate System, which is a component of the NHS
- ▶ All other public roads (typically excluding those functionally classified as rural minor collector and local access; see the Functional Classification section below for more information)

Select funding programs, such as the Highway Bridge Program (HBP) and various safety funds, may be used on any public road, including rural minor collector and local access roads. SAFETEA-LU funding sources are outlined in the Funding Sources and Eligibility section of this chapter. LPAs should contact their MPO/COG or the MPD liaison for guidance on how to apply for specific funding (see Appendix A for contact information).



The Moving Ahead for Progress in the 21st Century Act (Public Law 112-141; MAP-21) was signed into law on July 6, 2012. MAP-21 builds on and refines many of the highway, transit, bike, and pedestrian programs and policies previously established with SAFETEA-LU.

These recent changes to federal funding programs will be included in this manual in a future edition. Currently, information regarding MAP-21 can be found on FHWA's MAP-21 website referenced in the Resources list at the end of this chapter.

Functional Classification

Functional classification, as defined by FHWA, 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. Roadways are classified by location type (urban, rural, or small rural) and by service/usage type (principal arterial, minor arterial, collector, or local). ADOT, with cooperation from local officials as well as from relevant federal agencies for areas under federal jurisdiction, develops and updates a statewide highway functional classification in rural and urban areas to determine functional usage of the existing roads and streets. The results of the functional classification are mapped and submitted to FHWA for approval. The functional classification of roadways affects eligibility under some federal funding programs, as described in the Funding Sources and Eligibility section of this chapter. See the Resources list at the end of this chapter for FHWA's website on functional classification guidelines.

Distribution of Federal-Aid Funds

FAHP funds are authorized by Congress for FHWA programs and activities and are made available to states at the beginning of each fiscal year (October 1). Funds are distributed by FHWA through apportionment, which is the distribution of funds among the states based on prescribed formulas in the law, and through allocations, which are funds distributed to the states for qualifying projects. Although funds are referred to as being distributed, federal funds are accessible only through reimbursement. The distribution of funds at the beginning of each fiscal year is similar to the states being issued lines of credit for certain programs, with the funds becoming available upon application for federal funding before expenditures.



Federal-aid transportation funds may only be spent after authorization by FHWA through ADOT, and they operate on a reimbursement basis.

Funds for metropolitan planning activities are deducted from FAHP funds before distribution to qualifying LPAs and are made available to MPOs by ADOT. The remaining funds are apportioned and allocated. A list of all transportation programs and activities receiving apportioned funds and a description of the formulas by which the funds are distributed is contained in the "Federal-aid Financing Procedures" chapter of the FHWA publication *Financing Federal-aid Highways* (see the Resources list at the end of this chapter for a link to that publication). State Planning and Research, Transportation Enhancement (TE), and the Surface Transportation Program (STP) are examples of programs funded through apportionment. Appendix G of *Financing Federal-aid Highways* contains a list of programs that receive allocated funds.

Federal/State Partnership under the Federal-Aid Highway Program

The FAHP is a jointly administered, jointly funded program, and responsibilities are shared between FHWA and ADOT. For funding purposes, this means that:

- ▶ FHWA does not provide full funding (with few exceptions). SAFETEA-LU establishes a funding ratio, or pro rata, that defines the federal share (or percentage) of project costs (23 USC 120). Federal pro rata requirements are provided in the Funding Matrix at the end of this chapter (Table 6-3). ADOT and LPAs

make up funding not provided by FHWA (i.e., local match funding). Matching funds for LPA projects may come from local taxes, private donations, toll credits, or market value of donated ROW (see Chapter 10, Right-of-Way Clearances, for details about donated ROW). In-kind expenditures are permissible for some programs. Local match requirements are provided in the Funding Matrix at the end of this chapter (Table 6-3). See Attachment 6-1 for a sample spreadsheet for use in estimating local match requirements.

- ▶ FHWA and ADOT share responsibility for ensuring that all requirements necessary for reimbursement are met, including project authorization, timely billing, and (upon completion) project closeout. LPAs also share responsibility for meeting funding requirements. See the Roles and Responsibilities section of this chapter.



Federal funds generally cannot be a part of local match; nonfederal funds, such as state or local dollars, may be used as a match to federal funds. The LPA must submit payment of the local matching funds to ADOT within 30 days of execution of the IGA.

How Federal-Aid Funds Are Made Available (Documentation, Authorization, Obligation, and Billing/Reimbursement)

The FAHP does not provide funds up front. Instead, the FAHP makes funds available to FHWA, which reimburses ADOT for the federal share (pro rata amount) of approved projects, as costs are incurred. FAHP funds are generally made available in a four-step process and vary depending on whether ADOT or the LPA is administering the project. All projects, regardless of whether they are ADOT administered, self-administered, or administered under the Certification Acceptance Program, must follow these four basic steps to secure, use, and receive reimbursement for federal funds:

- ▶ Project documentation
- ▶ Federal-aid funding authorization
- ▶ Obligation of funds
- ▶ Project billing and reimbursement

Project Documentation

All ADOT-administered and self-administered projects must be documented by an IGA, which represents the LPA's promise to pay project costs above the federal pro rata amount. Generally, IGAs are prepared by ADOT, for comment and review by LPAs. The IGA outlines project financing based on the cost estimate—including local matching funds requirements and all applicable ADOT fees. The IGA must be fully executed by both ADOT and the LPA, and any local matching funds must be received by ADOT within 30 days of execution of the IGA. In general, Certification Acceptance projects do not require an IGA unless processed through ADOT Procurement, but all project timelines still apply regarding invoicing and notifying ADOT of project closeout. Refer to Chapter 2, ADOT Administration, for more information on IGAs.



ADOT requires that the IGA be amended whenever significant changes occur to the scope and budget of the project, as well as when changes in key staff or project schedule occur.

Federal-Aid Funding Authorization

To be eligible for FAHP funds, each project must first be authorized (approved) by FHWA. Federal-aid funding authorization is required before beginning work on any project activity for which federal funds will be used. Costs for work performed on an activity before the federal authorization effective date for that activity will not be reimbursed. It is recommended that LPAs submit all authorization request paperwork to their ADOT project manager by June 1 for processing. ADOT and FHWA need sufficient time to authorize by June 30 and obligate federal-aid funding before their September 15 deadline. Once the project is in a TIP and in the STIP, and an IGA has been executed for ADOT-administered and self-administered projects, the LPA may apply for authorization for any or all eligible project activities. However, to be authorized, the LPA must have sufficient financial resources to complete the activity or activities before receiving federal reimbursement. Therefore, it may benefit the LPA to request authorization in stages—that is, separate requests for authorization before beginning work on each of the following activities in the development/design and construction phases:

- ▶ **Development/design** (excluding ROW activities), including costs for preliminary engineering, environmental clearances, and design. See Chapter 8, Development/Design, for additional details.
- ▶ **ROW**, including activities required to obtain ROW and secure ROW clearances. See Chapter 10, Right-of-Way Clearances, for additional details.
- ▶ **Construction**, which covers activities beginning at advertisement/bidding up to the final walk-through and inspection. See Chapter 13, Construction, for additional details.

To apply for federal-aid funding authorization, the LPA must submit a written request to the ADOT project manager, who will assess the project activity or activities for eligibility and then forward the request to FHWA. The ADOT project manager will inform the LPA once a response has been received by FHWA.



Be sure to get funding authorization *before* work begins for any project activity funded with federal-aid dollars. Any work conducted before the federal authorization effective date *will not be reimbursed*. The LPA must also pay any costs exceeding the amount of federal aid authorized.



Plan Accordingly. While the start of the federal fiscal year is October 1, LPAs should submit all authorization request paperwork to their ADOT project manager by June 1 for processing. ADOT and FHWA need sufficient time to authorize and obligate federal-aid funding before their September 15 deadline.

Project Agreement

Title 23 USC 106 requires that ADOT enter into an agreement with FHWA for each project funded through the FAHP regardless of whether it is ADOT administered, self-administered, or administered by a certified LPA. This agreement, typically known as the project agreement, is a formal contract between ADOT and the federal government that defines the scope of work and other project-related commitments. The project agreement assures FHWA that the project will be designed, constructed, and maintained in accordance with federal requirements. More important, the project agreement constitutes FHWA's obligation to pay the federal share of the project costs.

Obligation

When a project has been authorized, FHWA obligates funds for the authorized phase or phases of the project. Obligation represents FHWA's legal commitment to reimburse the costs of the authorized federal portion of the project. Since allowable project costs are based on prior scoping, it is important that project documents accurately reflect all costs and that estimated project costs take into consideration the expected year of expenditure to account for anticipated inflation. Otherwise, there may be insufficient federal funds to complete the project as initially planned.

Obligations must be based on the current estimated cost of the project and are revised if the cost of the project changes. Therefore, ADOT requires LPAs to provide information about project costs periodically. Obligations are good for a single fiscal year and must be "rolled forward" if the project extends beyond that year. LPAs should notify their ADOT project manager if a project is behind schedule. The ADOT project manager will initiate the request to obligate funds for the upcoming fiscal year. Obligated federal funds must be used on a project-by-project basis and cannot be "banked" (i.e., saved for future use).



Design of LPA projects must begin within 1 year of when the project is authorized and obligated for federal funding.

Federal funds may be deobligated if the amount obligated exceeds the current cost of the project, or if the project becomes inactive, as defined in 23 CFR 630A. Deobligated funds are not property of the LPA; they are returned to FHWA for redistribution either by ADOT or by FHWA to other states, unless the funds have lapsed (expired). Project reimbursement is only provided for the percentage of eligible costs incurred. Deobligated federal funds cannot be banked; they must be used on a project-by-project basis. See Chapter 17, Financial Management/Reimbursement, for more information on obligation and deobligation.

Project Billing and Reimbursement

Once federal funding has been obligated, FHWA may reimburse ADOT for the federal share of costs incurred on approved projects. Once it has received federal reimbursement, ADOT can reimburse the LPA according to the terms of the IGA. There are strict procedures and time frames associated with reimbursement requests. Refer to Chapter 17, Financial Management/Reimbursement, for more information.



To ensure your project is fully reimbursed for all eligible incurred costs:

- Complete all required paperwork and submittals by specified deadlines
- Do not begin work before receiving required federal funding authorizations
- Do not proceed beyond Stage III (60% design plans) before obtaining NEPA clearance
- Include mitigation measures in final PS&Es and bid documents per 23 CFR 635
- Be aware of and comply with other requirements, such as the requirement to follow consultant selection procedures or to complete projects within required time frames
- Understand and follow the invoicing and closeout timelines for self-administered and Certification Acceptance projects

Inactive Federal-Aid Projects

Inactive projects are those with unexpended federal-aid funding obligation against which no expenditures have been charged (to the federal funds) within certain time frames. Title 23 CFR 630.106(a)(5) classifies inactive projects in one of three tiers based on the following criteria:

1. Projects inactive for the past 12 months with unexpended balances more than \$500,000
2. Projects inactive for the past 24 months with unexpended balances of \$50,000 to \$500,000
3. Projects inactive for the past 36 months with unexpended balances less than \$50,000

ADOT is required by federal law to release any unneeded funding from a project within 90 days of the date of award, project completion, etc. One of the most frequent factors leading to projects becoming inactive is the lack of invoicing and closeout notification from LPAs. See Chapter 17, Financial Management/Reimbursement, for more information on invoicing and closeout.



CALENDAR WATCH

ADOT is required by federal law to release any unneeded funding from a project within 90 days of the date of award, project completion, etc. Unexpended balances will be released from inactive projects, so it is important to invoice and provide closeout notification in a timely manner.

Funding Sources and Eligibility

Federal-aid funding sources available to LPAs include programs for highway construction and improvements, transit improvements, pedestrian and bicycle facilities, bridge replacement and rehabilitation, and safety. These funds consist of reimbursement programs, grants that are apportioned using a federal formula, and discretionary grants based on need. All federal-aid funds, including grants, available to LPAs are provided on a reimbursement basis. To receive funding, LPA projects must be consistent with the goals of the funding program and must be in a TIP and in the STIP.

Pursuant to federal law, most programs have a maximum funding amount and require local matching funds. In states like Arizona that have large amounts of federal land, a sliding-scale adjustment is applied, which increases the federal share and decreases the required local match. According to FHWA Notice 4540.12, the sliding-scale adjustment for Arizona changes the federal share for projects off the Interstate System to 94.3% and the federal share for projects on the Interstate System to 94.34%. Most local government projects in Arizona are eligible for funding at 94.3% maximum federal share and 5.7% minimum local match, with some exceptions.

FHWA's *A Guide to Federal-Aid Programs and Projects* reflects all current federal-aid funding programs under FAHP (see the Resources list at the end of this chapter for a link to that guide). Specific information about available funding programs commonly used by LPAs, including those administered by FHWA (i.e., programs under the FAHP), as well as those administered by FTA and FAA, is provided in the following sections and summarized in the Funding Matrix at the end of this chapter (Table 6-3).



The information in the Funding Sources and Eligibility section currently does not reflect the recent changes to federal funding programs due to MAP-21. These changes will be included in this manual in a future edition. Currently, information regarding MAP-21 can be found on FHWA's MAP-21 website referenced in the Resources list at the end of this chapter.



While the laws and regulations regarding the use of federal-aid funds discussed in this manual apply to all programs and grants, the ADOT and FHWA specific policies and procedures discussed apply only to funding programs administered by FHWA either directly or via ADOT. This manual focuses on funding programs administered by ADOT and FHWA that are commonly used by LPAs, but other commonly used non-FAHP programs and grants are also mentioned in this chapter for informational purposes. If the funding program or grant being used for a given LPA project is administered by FTA or FAA, LPAs should contact the appropriate program manager as listed in Table 6-3 for information on FTA- and FAA-specific policies and procedures since they may differ from those required by FHWA.

Surface Transportation Program

This program provides flexible funding—either highway or transit projects may be eligible. Funds may be used by LPAs for projects on any federal-aid highway (i.e., any highway on the NHS or the Interstate System or any other public road functionally classified above local or rural minor collector), bridges on any public road, and city bus terminals and facilities. All transportation modes may be eligible; however, LPA projects funded by the STP must be included in a TIP and in the STIP. These funds can be used for qualified design and ROW activities, as well as construction activities.

Under SAFETEA-LU, STP funding is allocated by ADOT to the MPOs/COGs. The MPOs/COGs each have an established process for applying their regions' allocation of funding to member agency projects.

Surface Transportation Program Funds Match

The federal share for STP funds is subject to a sliding-scale adjustment. Therefore, the federal share for STP-funded LPA projects in Arizona is 94.3% for non-Interstate System projects, or 94.34% for projects on the Interstate System. The minimum local match for non-Interstate System projects is 5.7%.

Transportation Enhancement Program

TE is an important category of federal funding for LPA projects that are managed by ADOT's Transportation Enhancement and Scenic Roads (TE/SR) Section. LPAs interested in developing TE projects should consult with the TE/SR Section (see Appendix A for contact information). Information about TE funding is provided in this manual as a courtesy to direct users to the comprehensive information available from the TE/SR Section.

As required by federal law, ADOT directs 10% of STP funds to the TE Program to strengthen the cultural, aesthetic, and environmental aspects of the nation's transportation system. This is accomplished through 12 eligible activities related to surface transportation. For TE funds, 50% are allocated to ADOT, and 50% are allocated to LPAs through a competitive process managed by the TE/SR Section. LPAs submit proposed enhancement projects to ADOT for evaluation and selection annually.

Transportation Enhancement Program Funds Match

In Arizona, the federal share under the TE program is 94.3% for non-Interstate System projects, or 94.34% for projects on the Interstate System, since the funds are subject to a sliding-scale adjustment. For projects on the NHS or within ADOT ROW (called state projects), the federal funding cap is currently \$943,000 per project; for all other projects, the federal-aid cap is \$750,000 per project. LPAs must pay for all costs incurred and then request reimbursement for expenditures. Details are available in ADOT's *Transportation Enhancement Program Handbook*. See the Resources list at the end of this chapter for links to the TE handbook and the TE Program.

Safe Routes to School Program

This competitive program was established by Section 1404 of SAFETEA-LU to substantially improve the ability of students to walk and bicycle to school. Projects that may be eligible for Safe Routes to School (SRTS) funds include sidewalk improvements, traffic calming and speed reduction measures, pedestrian and bicycle crossings, on- and off-street bicycle routes, secure bicycle parking facilities, and traffic diversions. These projects must be implemented on any public road or any bicycle or pedestrian pathway within 2 miles of an elementary or middle school. Detailed eligibility criteria can be found in Section 1404 of the SAFETEA-LU legislation (Public Law 109-59, Title I, Section 1404). ADOT sets aside a portion of SRTS funds for noninfrastructure activities that encourage walking and bicycling to school, such as public awareness campaigns, traffic education and enforcement in the vicinity of schools, bicycle and pedestrian safety training, and administering SRTS programs. SRTS does not provide up-front funding for a project; it is a reimbursement program. Refer to the Resources list at the end of this chapter for additional details on this program.

Safe Routes to School Program Funds Match

SRTS requires no local match; however, LPAs must have the up-front funds to implement the project. The selected applicants are entitled to request reimbursements from ADOT for an amount agreed upon at the time of selection.

Highway Bridge Program

HBP funds are used for replacement of structurally deficient or functionally obsolete highway bridges or for rehabilitation of bridge structures on public roads. Funds are made available to LPAs on a first come, first served basis each federal fiscal year. Contact ADOT MPD and LPA Section for current funding availability. Bridges that are included in ADOT's Statewide Inventory of Bridges, that are inspected regularly (either by ADOT or the local jurisdiction), that are classified as structurally deficient or functionally obsolete, and that have a sufficiency rating below 50 are eligible for bridge replacement funds. Bridges with a sufficiency rating above 50 and below 80 qualify for bridge rehabilitation funds. Bridges with a sufficiency rating above 50 may be considered for replacement if the LPA's life-cycle analysis shows that it is more cost effective to replace the bridge than to rehabilitate it. Cost analysis for bridges considered for replacement must be submitted to LPA Section for approval.

HBP funds are to be used only on costs directly associated within the bridge limits (i.e., within the attainable touchdown points). Excessive approach work is not eligible for HBP; therefore, additional work beyond the bridge must be funded through other sources. When HBP funds are used on bridge replacement or rehabilitation projects, the affected bridges must not fall back into a deficient classification within 10 years.

Systematic Preventive Maintenance under the Highway Bridge Program

HBP funds may also be used for eligible bridge preservation activities when complying with systematic preventive maintenance. Projects that may be eligible for HBP funds under systematic preventive maintenance include scour countermeasures, seismic retrofit, and inspection tasks. These types of projects do not need to meet the eligibility criteria mentioned above (i.e., structurally deficient or functionally obsolete, with a sufficiency rating below 80). See FHWA's *Bridge Preservation Guide* and memorandum on *Preventive Maintenance Eligibility* (referenced in the Resources list at the end of this chapter) or contact the ADOT project manager for more information about HBP and systematic preventive maintenance eligibility.

Highway Bridge Program Funds Match

In Arizona, the federal share under the HBP program is 94.3% for non-Interstate System projects, or 94.34% for projects on the Interstate System, since the funds are subject to a sliding-scale adjustment. The minimum local match for non-Interstate System projects is 5.7%. To fairly distribute the funding among local governments, ADOT elected to impose the following threshold: a maximum federal participation of \$1 million in HBP funds per bridge replacement or rehabilitation project. The maximum federal participation for Systematic Preventive Maintenance projects is \$250,000 per year, per LPA. Refer to the Resources list at the end of this chapter for additional information and how to access the HBP.

Congestion Mitigation and Air Quality Improvement Program

The Congestion Mitigation and Air Quality Improvement (CMAQ) Program was developed to support surface transportation projects that contribute to air quality improvements and provide congestion relief. CMAQ funds may only be used in areas that are designated as nonattainment or maintenance areas for failing to achieve the national standards for air quality under the Clean Air Act. CMAQ funding is distributed each year to the State of Arizona based on a formula that accounts for population and air quality classification. Currently, Arizona's funds have been dedicated entirely to the region covered by MAG, due to its high population and major air quality issues. SAFETEA-LU expanded the eligibility for CMAQ projects and is focusing on diesel engine retrofits and emission reduction, as well as congestion mitigation projects that also provide air quality benefits. To receive CMAQ funding, projects must be in the MAG region and in the approved TIP and STIP and must fit in one of the following categories:

- Transportation control measures to assist areas designated as nonattainment under the Clean Air Act Amendments of 1990
- Pedestrian/bicycle off-road or on-road facilities, including modification of existing public walkways, to comply with the Americans with Disabilities Act (ADA)
- Traffic management/monitoring/congestion relief strategies
- Transit
- Project development activities
- Other transportation projects with air quality benefits

CMAQ funding may be used for projects on local and minor collector roads. Construction projects that add new capacity for single-occupancy vehicles do not qualify.

Congestion Mitigation and Air Quality Improvement Program Funds Match

In Arizona, the federal share under the CMAQ program is 94.3% for non-Interstate System projects, or 94.34% for projects on the Interstate System, since the funds are subject to a sliding-scale adjustment. The minimum local match for non-Interstate System projects is 5.7%. For certain safety projects (e.g., carpool/vanpool projects, priority control systems for emergency vehicles and transit vehicles, traffic-control signalization), the federal share is 100%, with no local match required. Additionally, according to 23 USC 120(c), the federal match may be up to 100% on CMAQ funds obligated under SAFETEA-LU or its extensions.

Highway Safety Improvement Program

The objective of the Highway Safety Improvement Program (HSIP) is to reduce traffic fatalities and serious injuries on all public roads in the state. HSIP funds may be used to address an identified safety problem. Eligible projects must be consistent with the Arizona Strategic Highway Safety Plan (SHSP), must correct or improve a hazardous road location or feature, or must address a highway safety problem (see 23 CFR 924.3). Refer to ADOT's *Arizona Highway Safety Improvement Program Manual* for further information on eligible projects.

HSIP-eligible projects may include but are not limited to the following:

- ▶ Intersection safety improvements
- ▶ Pavement and shoulder widening
- ▶ Rumble strips
- ▶ Improvements for pedestrian or bicyclist safety or for the safety of people with disabilities
- ▶ Construction of a railway-highway crossing safety feature
- ▶ Construction of a traffic calming feature
- ▶ Elimination of a roadside obstacle or roadside hazard
- ▶ Improvements to highway signage and pavement markings
- ▶ Transportation safety planning
- ▶ Installation of guardrails, barriers, and crash attenuators
- ▶ Installation and maintenance of signs at pedestrian-bicycle crossings and in school zones
- ▶ Construction and operational improvements on high-risk rural roads
- ▶ Road safety audits

Written eligibility approval is required to use HSIP funds on a project before the request for authorization of federal funds. Since the passage of SAFETEA-LU in 2006, HSIP has been a core federal-aid program and is no longer a set-aside from STP funds. Twenty percent of federal HSIP funds the State receives each year is suballocated to be programmed by the MPOs and COGs for eligible safety improvement projects throughout Arizona.

ADOT must maintain an SHSP that identifies and analyzes safety problems and opportunities in order to use HSIP funds for new eligible activities. The SHSP is required to be data driven; to be developed in collaboration

with a range of stakeholders; and to address safety through engineering, enforcement, education, and emergency medical services.

Highway Safety Improvement Program Funds Match

In Arizona, the federal share under the HSIP program is 94.3% for non-Interstate System projects, or 94.34% for projects on the Interstate System, since the funds are subject to a sliding-scale adjustment. The minimum local match for non-Interstate System projects is 5.7%. HSIP also requires a funding set-aside for the Railway-Highway Grade Crossing Program (RHGCP) and the High Risk Rural Roads Program (HRRRP), both discussed in greater detail below and in the Funding Matrix at the end of this chapter (Table 6-3). Projects such as roundabouts; traffic-control signalization; safety rest areas; pavement markings; and installation of traffic signs, streetlights, guardrails, impact attenuators, concrete barrier end treatments, breakaway utility poles, or priority control systems for emergency vehicles or transit vehicles at signalized intersections may be funded at up to a 100% federal share (23 USC 120[c]).

Railway-Highway Grade Crossing Program

The purpose of this program, which is a funding set-aside through HSIP, is to eliminate hazards at public railway-highway grade crossings. This program is administrated by the ADOT Utilities and Railroad Engineering Section (URR) on behalf of FHWA. The RHGCP provides funding for existing public crossings and cannot be used if a crossing has been modified (e.g., widened).

According to 23 USC 130, ADOT URR is required to maintain a statewide inventory of all railway-highway grade crossings to identify those crossings that may require separation, relocation, or protective devices. URR then prepares and implements a schedule of proposed safety improvement projects based on that inventory. At a minimum, the crossings identified through the program will be provided standard signing and striping following guidance from the latest edition of the *Manual on Uniform Traffic Control Devices*. Projects that may be eligible for RHGCP funding include:

- Crossing consolidations
- Installation of grade separations at crossings
- Repair of existing grade separations
- Signage
- Pavement marking
- Illumination
- New highway-railroad grade crossing signals
- Upgraded highway-railroad grade crossing signals or circuits
- Improved crossing surfaces
- Traffic signal interconnection/preemption
- Sight-distance or geometric improvements
- Data improvements

For more information, see the *Railroad-Highway Grade Crossing Handbook - Revised Second Edition August 2007*, as referenced in the Resources list at the end of this chapter. See Chapter 11, Utility and Railroad Coordination, for more information on policies and procedures for projects that involve railroad crossings.

Railway-Highway Grade Crossing Program Funds Match

The federal contribution is 90% for surface work (such as sidewalks, crossing surface replacement, and approach work), with a 10% local match by the state. For signal work, the federal contribution is 100%. ADOT will determine eligible projects and scope of work; additional work by LPA on those projects is typically 100% funded by the LPA.

High Risk Rural Roads Program

The HRRRP is also a funding set-aside through HSIP. The purpose of this program is to reduce traffic fatalities and incapacitating injuries on rural roads, where approximately 55% of fatalities occur statewide. A *high-risk rural road* is functionally classified as a rural major collector, rural minor collector, or rural local road on which the crash rate for fatalities and incapacitating injuries exceeds, or will likely exceed given increased traffic volumes, the statewide average for those functional classes of roadway. The HRRRP uses safety data to identify eligible locations on state and nonstate public roadways (e.g., city, county, and tribal). Implementation requires comprehensive crash data for all public roads. Improvement projects are identified as part of Arizona's HSIP process and are based on an analysis of safety problems that identifies concerns, potential countermeasures, and prioritization. Funds for preliminary engineering, including environmental approvals and final design, would be eligible for federal reimbursement according to HSIP requirements.

High Risk Rural Roads Program Funds Match

The federal share under the HRRRP is 90%, with the remaining 10% funded by the sponsor. Some projects may be eligible for 100% federal funding according to 23 USC 120(c).

Emergency Relief Program

ER funding supplements the commitment of resources by federal and state agencies and LPAs to help pay for the unusually heavy expenses for repairing serious damage to federal-aid roads resulting from natural disasters or catastrophic events from an external cause (23 CFR 668). This funding applies to emergency-related repairs only on federal-aid routes that are functionally classified above local or minor collector roads. Eligible expenditures consist of those for preliminary engineering, ROW, and permanent and emergency construction to restore essential travel, protect remaining facilities, and restore facilities to predisaster conditions. ER funding does not fund heavy maintenance or routine emergency repair activities, which should be funded as contingency items in the state and local road programs.

The following eligibility conditions must be met for the use of ER funds to be authorized:

- ▶ Work must occur on federal-aid highways
- ▶ Work must be within ROW limits
- ▶ Restoration is limited to "in kind"
- ▶ A minimum of \$5,000 in repair is allowed per site

- ▶ Costs must exceed \$700,000 in federal-aid eligible work, or the application for ER funds must show why the scope of work is beyond heavy maintenance or routine emergency repair
- ▶ Funds cannot be used as a match for other federal-aid program funds
- ▶ Funds cannot duplicate assistance provided under another federal program or compensation from other sources, such as insurance

**CAUTION**

For ER funds to be made available, the Governor must issue a formal proclamation of emergency, the Governor must make a request for a presidential declaration, or the President must directly issue a formal declaration of emergency.

FHWA can provide up to \$100 million in ER funding for repairs to federal highways and roads on federal lands for each natural disaster or catastrophic failure that is found eligible. Local emergency opening work to restore essential travel, minimize the extent of damage, or protect the remaining facilities may be eligible for ER funds.

Emergency Relief Program Funds Match

For emergency repair work to restore essential travel, minimize the extent of damage, or protect the remaining facilities, the federal contribution is 100% if the eligible emergency work is accomplished within 180 days after the disaster. All work accomplished more than 181 days after occurrence of the disaster has a federal contribution of 93.4%, with a 5.7% local match required since ER funds are subject to a sliding-scale adjustment. Permanent repair work is reimbursed at the 94.3% pro rata share during the initial 180-day period, unless it is performed as part of emergency repair work to restore essential travel, minimize the extent of damage, or protect remaining facilities. LPAs must maintain detailed site-specific records to document work performed and the date of performance.

Federal Lands Highway Program

The primary purpose of the Federal Lands Highway Program (FLHP) is to provide financial resources and technical assistance for public roads that service federal and Indian lands. The core FLHPs include:

- ▶ The **Indian Reservation Roads Program**, which provides funding for public roads that grant access to or within Indian or Native Alaskan reservations, lands, or communities.
- ▶ The **Park Roads and Parkways Program**, which provides funding for public roads that make access available to or within national parks, recreation areas, historic areas, or other units of the National Park System.
- ▶ The **Refuge Roads Program**, which maintains and improves public roads that provide access to or within units of the National Wildlife Refuge System.
- ▶ The **Public Lands Highway Program**, which has two components, the Public Lands Highway Discretionary Program and the Forest Highway Program. Both of these programs provide funding for state-owned and locally owned public roads that serve federal and Indian lands on the federal-aid primary and secondary systems.

Federal Lands Highway Program Funds Match

The federal share of the costs for any project eligible under this program is 100%. A local match is not required; however, some FLHPs consider the type and amount of voluntary match when selecting and prioritizing projects. FLHP funds can be used as the state/local match for federal-aid highway or transit projects that provide access to or within federal or Indian lands.

National Scenic Byways Program

This discretionary grants program provides funding to support and enhance roads designated as national scenic byways, all-American roads, and state scenic byways. Roads recognized for the program have one or more archaeological, cultural, historic, natural, recreational, or scenic intrinsic qualities. Designated roads can be located on lands managed by a state, an Indian tribe, or a federal land-management agency. Indian tribe scenic byways are located on lands where a tribe has sole jurisdiction and responsibility for managing the road.

Applications for funding are prepared online but are submitted through ADOT ITD. Preference is given to projects that improve mobility within and among byway communities; increase access to jobs, health and social services, tourism, and educational opportunities; and provide alternatives to vehicular travel along byways that enhance the visitor experience. There are eight categories of eligible projects:

- ▶ State and Indian tribe scenic byway programs
- ▶ Corridor management plans
- ▶ Safety improvements
- ▶ Byway facilities
- ▶ Access to recreation
- ▶ Resource protection
- ▶ Interpretive information
- ▶ Marketing

National Scenic Byways Program Funds Match

The required local match for the National Scenic Byways Program is 20%, with an 80% federal contribution.

Recreational Trails

The Recreational Trails Program provides funds to develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized uses. Eligible projects improve or develop trails for hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain-vehicle riding, four-wheel driving, or other off-road motorized vehicle use. Recreational Trails Program funds come from the Federal Highway Trust Fund and are a portion of the motor fuel excise tax collected from nonhighway recreational fuel use.

Recreational Trails Program funds are distributed to the states by legislative formula: half of the funds are distributed equally among all states, and half are distributed in proportion to the estimated amount of nonhighway recreational fuel use in each state. Typical projects include:

- Maintenance and restoration of existing trails
- Development and rehabilitation of trailside and trailhead facilities and trail linkages
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails (with restrictions for new trails on federal lands)
- Acquisition of easements or property for trails
- Assessment of trail conditions for accessibility and maintenance
- Development and dissemination of publications and operation of educational programs

Recreational Trails Program Funds Match

The local match for the Recreational Trails Program is a minimum of 5%, with the federal agency contribution not exceeding 95%.

High Priority Projects/Transportation Improvements Programs

The High Priority Projects/Transportation Improvements (HPP/TI) Programs provide funding for projects named in federal law through congressional action. These projects are included as earmarks in the transportation authorization acts (most recently SAFETEA-LU), which include a general description and authorized fund amount for each project. Annual appropriations bills passed by Congress also include earmarks for a number of programs, but HPP/TI Programs provide the vast majority of the earmarked funding secured by LPAs. Proposed projects must match the legislated project description and fund amount. All funds dedicated to a specific HPP/TI project may only be used on a project with a scope consistent with the original legislated description. Any changes to the legislated project description or funding must be approved by congressional action. The funds may be used for one project or for several separate projects adding up to the available funding limit. Project types are defined under Title 23 USC.

High Priority Projects/Transportation Improvements Programs Funds Match

The federal share is generally 80%, subject to the exceptions listed in the SAFETEA-LU Technical Corrections Act of 2008, Public Law 110-244 (23 USC 117). In Arizona, the federal share is 80%, with a 20% local match.

Planning Assistance for Rural Areas Program

The PARA Program was developed by ADOT MPD and dedicates federal State Planning and Research funds to the development of transportation planning studies for metropolitan communities with less than 200,000 residents. Eligible applicants may include counties, cities, and towns located outside the planning boundaries of TMAs, as well as all tribes. PARA funds are limited to planning applications and may not be used for the design or construction of transportation facilities. PARA funds may be applied to address a broad range of planning issues related to roadway and nonmotorized transportation modes. Funds may also be applied to studies dedicated solely to the planning of public transportation services and nonmotorized modes. Partnerships between communities are encouraged; PARA funds may be used for planning studies that address the needs of multiple jurisdictions, as well as for needs that are limited to neighborhoods within jurisdictions.

Applicants are encouraged to focus their requests for funding on the most critical transportation planning needs identified in their communities. Contact MPD for information about how to apply. Typical projects include corridor studies, feasibility studies, transportation plan updates, transportation elements of general and comprehensive plans, and transit studies.

Planning Assistance for Rural Areas Program Funds Match

The PARA Program is 100% federally funded, but is subject to an annual cap.

Coordinated Technology Implementation Program

The Coordinated Technology Implementation Program (CTIP) is a cooperative technology deployment and sharing program between the FHWA Federal Lands Highway Office and federal land-management agencies. It provides a forum for identifying, studying, documenting, and transferring new technology to the transportation community. CTIP funds are normally used for technology projects related to transportation networks on federal public lands. Projects related to the transportation infrastructure, transit, safety, public use, and natural environments will be considered. Improving maintenance techniques may be eligible, but research projects are not eligible. See the CTIP website referenced in the Resources list at the end of this chapter for more information.

Coordinated Technology Implementation Program Funds Match

The federal share is 100%, with a \$200,000 maximum. Grants are awarded by the CTIP federal partner agencies; no local match is required.

Governor's Office of Highway Safety Grants

The Governor's Office of Highway Safety (GOHS) is a cabinet-agency program that focuses on highway safety in Arizona by developing, promoting, and coordinating programs; influencing public and private policy; and increasing public awareness of highway safety. Local programs designed to address problems in various highway safety program areas may be eligible for funding, such as:

- DUI/alcohol/drugs enforcement/youth alcohol
- Police traffic services
- Occupant protection (seat belts, child safety seats)
- Bicycle/pedestrian safety
- Motorcycle safety
- School bus safety
- Roadway safety

GOHS grants fund highway safety projects through Federal 402 (State and Community Highway Safety Grants); 410 (Alcohol Incentive); 408 (Information System Improvement); and 2010 (Motorcycle Safety) funds. Additionally, GOHS receives funding through the U.S. Department of Justice for underage drinking enforcement. Federal funds allocated to finance state and local government highway safety projects are intended to supplement, not be a substitute for, ongoing state or local program expenditures. Projects should be designed to eliminate a deficiency

in an applicant agency's program or to expand an existing program. See the Resources list at the end of this chapter for a link to more information about GOHS grants.

Governor's Office of Highway Safety Funds Match

The federal share is 100% grant funded in the form of reimbursable contracts. No local match is required. Reimbursement is made by GOHS on the basis of a written claim made by the applicant agency each time funds are expended.

Coordinated Border Infrastructure Program

States may use funds in a border region, defined as any portion of a border state within 100 miles of an international land border with Canada or Mexico, for the following types of improvements to facilitate/expedite cross-border motor vehicle and cargo movements:

- ▶ Improvements to existing transportation and supporting infrastructure
- ▶ Construction of highways and related safety and safety enforcement facilities associated with international trade
- ▶ Operational improvements, including those related to electronic data interchange and use of telecommunications
- ▶ Modifications to regulatory procedures
- ▶ International coordination of transportation planning, programming, and border operation with Canada and Mexico

Coordinated Border Infrastructure Program Funds Match

In Arizona, the federal share is 94.3%, since the funds are subject to the sliding-scale adjustment. When the funds are used for projects on the Interstate System to add high-occupancy-vehicle or auxiliary lanes, but not other lanes, the federal share may be 94.34%. Certain safety improvements listed in 23 USC 120(c) have a federal share of 100%.

ADOT Section 5304 Statewide Transportation Planning Program

These funds are apportioned annually to states for use in rural planning and research. Other eligible uses, at the State's discretion, include statewide planning and other technical assistance activities, planning support for nonurbanized areas, research and development, demonstration projects, university research, and human resource development. Examples of state planning activities include Regional Transportation Connector Services, ADOT's PARA studies, development of statewide and regional rail planning strategies and multimodal plans, and identification of public transportation alternatives.

Section 5304 Funds Match

The federal contribution for the Section 5304 Statewide Transportation Planning Program is 80%, with a 20% local match required.

ADOT Section 5310 Elderly and Disabled Transit Program

Program funds are used annually, primarily for capital assistance, to purchase van-type vehicles and related equipment. In addition, a new federal grant class called “mobility management” is available to assist agencies and communities with their coordination efforts.

Eligible recipients include private nonprofit and public agencies—for example, senior centers and programs for the physically, mentally, and developmentally disabled populations—that provide transportation for activities such as:

- ▶ Medical appointments
- ▶ Nutrition appointments
- ▶ Adult daycare
- ▶ Education and training
- ▶ Employment
- ▶ Service appointments such as banking and social services
- ▶ Shopping trips

Section 5310 Funds Match

The federal contribution is 90%, with a 10% local match.

ADOT Section 5311 Rural Public Transportation

The goals of this program are to enhance access to health care, shopping, education, employment, public services, and recreation for people in rural areas and to assist in the maintenance, development, improvement, and use of public transportation systems in rural areas.

Section 5311 program funds can be used for capital projects and operating assistance. ADOT MPD has the primary responsibility for providing fair and equitable distribution of funds to qualified applicants. ADOT distributes a percentage of funds to counties, cities, towns, and Native American tribes to operate rural transit systems at the local level. Funds may be used for public transit services operating within and between small urban and rural communities and between small urban and rural communities and urbanized areas (cities of 50,000 people or more).

ADOT strongly encourages coordination of services to facilitate the most efficient use of federal, state, and local resources. To qualify for Section 5311 funding the applicant must:

- ▶ Attend an application workshop
- ▶ Submit an application that addresses effectiveness of service, coordination, financial capability, and local commitment to transit
- ▶ Participate in a panel interview process with ADOT and transit experts
- ▶ Meet the budget levels recommended by ADOT

Section 5311 Funds Match

For administrative and capital project costs, the federal contribution is 80%, with a required 20% local match. Operating project costs receive a 58% federal contribution, with a required 42% local match.

ADOT Section 5316 Job Access and Reverse Commute Program

This program was established to address the unique transportation challenges faced by welfare recipients and low-income people seeking to obtain and maintain employment. Many new entry-level jobs are located in suburban areas, and low-income individuals have difficulty accessing these jobs from their inner city, urban, or rural neighborhoods. Many entry-level jobs require working late at night or on weekends when conventional transit services are either reduced or nonexistent, and many employment-related trips involve multiple destinations, including reaching childcare facilities or other services. States and public bodies may be eligible designated recipients and may, in turn, provide these funds to subrecipients. Eligible subrecipients are private nonprofit organizations; state or local governments; and operators of public transportation services, including private operators of public transportation services. Eligible projects include capital, planning, and operating expenses for projects that transport low-income individuals to and from jobs and activities related to employment and for reverse-commute projects.

Section 5316 Funds Match

The federal share of eligible capital and planning costs may not exceed 80% of the net cost of the activity. The federal share of the eligible operating costs may not exceed 50% of the net operating costs of the activity. Recipients may use up to 10% of their apportionment to support program administrative costs, including administration, planning, and technical assistance, which may be funded at 100% federal share. The local match for eligible capital and planning costs will be no less than 20% of the net cost of the activity, and the local match for eligible operating costs will be no less than 50% of the net operating costs.

ADOT Section 5317 New Freedom Program

This program supports services and facility improvements that address the transportation needs of people with disabilities. This funding supports capital and operating costs to extend services beyond those required by the ADA. The New Freedom Program focuses on larger fixed-route urban systems that are required to have parallel or complementary paratransit systems. This can include extended hours or days, expansion of service area, or other operating parameters not available under previous funding mechanisms or other grant programs.

Eligible recipients include private nonprofit organizations; state or local governmental authority; and operators of public transportation services, including private operators of public transportation services.

Activities eligible for funding under the program include:

- ▶ Purchasing vehicles and supporting accessible taxi, ride-sharing, and vanpooling programs, including staff training, administration, and maintenance
- ▶ Providing paratransit services beyond minimum requirements ($\frac{3}{4}$ mile to either side of a fixed route), including routes that run seasonally
- ▶ Making accessibility improvements to transit and intermodal stations not designated as key stations

- ▶ Supporting voucher programs for transportation services offered by human service providers
- ▶ Supporting mobility management and coordination programs among public transportation providers and other human service agencies providing transportation

New Freedom funds are for rural areas (less than 50,000 people) and small urbanized areas (50,000 to 199,999 people) of the state. All projects funded under this program must be derived from a locally developed transportation planning process coordinated between public transit and human service providers. Successful applicants must be included in the regional transportation coordination plan for their service area and have participated in related activities.

Section 5317 Funds Match

New Freedom capital project costs (including mobility management) receive an 80% federal contribution, with a 20% local match required; operations project costs receive a 50% federal contribution, with a 50% local match required.

Arizona State Aviation Fund and Federal Aviation Administration Grants

This program provides funding from the Arizona State Aviation Fund or the FAA directly to public airports with airspace issues to resolve.

Arizona State Aviation Fund and Federal Aviation Administration Grants Match

State grants pay 90% of eligible costs or up to 95% of eligible costs for a secondary airport. FAA grants pay between 75% and 95% of eligible costs. For FAA grants issued to a public airport owner, ADOT will fund 50% of the local airport's share of the project's costs.

Funding Cycles

Generally, federal-aid funding is provided on a federal fiscal year (October 1 through September 30) basis. However, ADOT and Arizona's MPOs/COGs are organized on a state fiscal year (July 1 through June 30) basis. Therefore, funding cycles for some of the federal funding types vary. LPAs should contact their local MPO/COG for information on the application process and timeline for each funding type.

Project Costs

Technical Review Fees

State funds may not be used for local projects, so ADOT must recover technical review costs from local jurisdictions. Therefore, in addition to the LPA's share of design, ROW, and construction costs, the LPA must provide sufficient funds to ADOT to cover the cost of ADOT's technical review before ADOT will begin work on a project. LPAs will be assessed a design review fee for ADOT-administered and self-administered projects to recover ADOT's costs for design review and bid-package preparation while administering project development and advertisement. The amount of this fee is currently under deliberation. These costs are eligible for federal reimbursement at the pro rata rate for the program in which the project is funded. The review fee is due at the time of ADOT project initiation (i.e., when the TRACS and federal-aid numbers are requested and assigned). See

the Initiating an LPA Project section in Chapter 2, ADOT Administration, for a summary of estimated costs for ADOT to administer LPA projects.

Construction-Administration and Contingency Fees

ADOT also requires fees based on the estimated project construction cost to cover ADOT construction administration, contingencies for potential cost overruns, and postproject review. When preparing project cost estimates and budgeting forecasts, LPAs should add 15% to construction costs for construction administration, 5% for contingency to cover change orders if needed during construction, and 1% of the final project construction estimate to cover the postproject review. These fees are due before advertisement for bid. These costs are eligible for federal reimbursement at the pro rata rate for the program in which the project is funded. Unused funds can be refunded by ADOT.

Recordkeeping and Reporting

LPAs, MPOs/COGs, and ADOT must keep detailed records throughout the transportation planning and programming process, including the submission of federal-aid funding applications. Records must be retained in accordance with the provisions of 23 CFR 18. Generally, this requires that all financial and programmatic records, supporting documents, statistical records, and other records of grantees or subgrantees be retained and be easily available for review. In accordance with ARS 35-214, records must be retained for a minimum of 5 years following FHWA closeout of the project in the FMIS.

Federal-aid funding recipients are also required to comply with the Federal Funding Accountability and Transparency Act (see the Resources list at the end of this chapter for a link to information about the act). The Federal Funding Accountability and Transparency Act requires:

- ▶ Disclosure of entities receiving federal funding through federal awards, such as federal contracts and their subcontracts and federal grants and their subgrants
- ▶ Disclosure of executive compensation for certain entities
- ▶ Establishment of a publicly available, searchable website that contains information about each federal award
- ▶ Compliance with OMB guidance

Scoping activities are documented in RTPs, TIPs, the Five-Year Program, and the STIP, as required. As previously mentioned, regional TIPs and the STIP must be updated to reflect project changes, additions, and deletions. In addition, LPAs and ADOT must keep detailed records regarding expenditures as required by each funding program.

Roles and Responsibilities

Table 6-2 outlines the responsibilities of LPAs, MPOs/COGs, ADOT, and FHWA with regard to programming LPA projects. Refer to the *FHWA and ADOT Stewardship and Oversight Agreement for Arizona* referenced in the Resources list at the end of this chapter for specific information on FHWA and ADOT oversight roles.

Table 6-2 Roles and Responsibilities for Planning/Programming

Task	LPA	MPO/COG	ADOT	FHWA
ADOT Five-Year Program	Provide input	Provide input	Develop	Review
Regional TIP	Provide input	Develop	Approve; send a formal letter to FHWA or FTA, as applicable	Review
RTP	Provide input	Develop	Provide input	Review
State LRTP	Provide input	Provide input	Develop	Review
Statewide Transportation Planning Framework	Provide input	Provide input	Develop	Review
STIP	Provide input	Provide input	Develop	Review and approve
IGA (if required)	Coordinate and sign	N/A	Coordinate, prepare, and sign	N/A
Authorization of funds (23 CFR 630.106)	Request federal-aid funding	N/A	Review and submit	Review and approve
Obligation of funds	Provide project documentation	N/A	Review and submit project documentation	Provide reimbursement
LPA matching funds	Provide funding	N/A	N/A	N/A
Project agreement	Request	Review	Review and submit	Review and approve

Table 6-3 Funding Matrix

Program	Contact	Type	Match Requirements	Eligibility
STP	ADOT LPA Section (602) 712-4428	Competitive grant through MPO/COG programming process; administered through FHWA or FTA	<p><i>For projects not on the Interstate System:</i> Local Match: Minimum 5.7% Federal Share: Maximum 94.3%</p> <p><i>For projects on the Interstate System:</i> Local Match Minimum 5.66% Federal Share: Maximum 94.34%</p>	Projects on any federal-aid highway
TE	ADOT LPA Section (602) 712-4428	Competitive reimbursement program; administered through FHWA or FTA	<p><i>For projects not on the Interstate System:</i> Local Match: Minimum 5.7% Federal Share: Maximum 94.3%</p> <p><i>For projects on the Interstate System:</i> Local Match Minimum 5.66% Federal Share: Maximum 94.34%</p> <p><i>Subject to a per project cap</i></p>	Projects related to surface transportation and that meet category criteria

Program	Contact	Type	Match Requirements	Eligibility
SRTS	ADOT program manager (602) 712-8010	Competitive reimbursement program; administered through FHWA	Local Match: None required Federal Share: 100%	Projects for elementary and middle schools only; must be within 2-mile radius of school
HBP	ADOT LPA Section (602) 712-4428	First-come, first-served annual grant; administered through FHWA	<i>For projects not on the Interstate System:</i> Local Match: Minimum 5.7% Federal Share: Maximum 94.3% <i>For projects on the Interstate System:</i> Local Match Minimum 5.66% Federal Share: Maximum 94.34% <i>Subject to a per project cap</i>	Highway bridge improvement through replacement, rehabilitation, and systematic preventive maintenance; applies to any public road, regardless of functional classification
CMAQ	MAG transportation director (602) 254-6300	Competitive grant available only to MAG members; administered through FHWA or FTA	<i>For projects not on the Interstate System:</i> Local Match: Minimum 5.7% Federal Share: Maximum 94.3% <i>For projects on the Interstate System:</i> Local Match Minimum 5.66% Federal Share: Maximum 94.34% <i>For select safety projects, federal share is 100% per 23 USC 120(c)</i>	Projects that reduce transportation-related carbon monoxide, ozone precursor, or particulate-matter emissions
HSIP	ADOT HSIP Local Government program manager (602) 712-7581	Annual grant; based on eligibility criteria, programming, and prioritization; administered through FHWA	<i>For projects not on the Interstate System:</i> Local Match: Minimum 5.7% Federal Share: Maximum 94.3% <i>For projects on the Interstate System:</i> Local Match: Minimum 5.66% Federal Share: Maximum 94.34% <i>For select safety projects, federal share is 100% per 23 USC 120(c)</i>	Public facility with documented crash data that meets FHWA/ADOT eligibility criteria; also requires funding set-aside for the RHGCP and HRRRP
RHGCP	ADOT URR (602) 712-8694	Program based on priority need established by ADOT; a set-aside from HSIP funds; administered through FHWA	<i>For surface work:</i> Local Match: Minimum 10% Federal Share: Maximum 90% <i>Signal work may be eligible for up to 100%</i>	Highway-railroad grade crossings on public roads ranked for hazard potential and scheduled through ADOT inventory process

Program	Contact	Type	Match Requirements	Eligibility
HRRRP	ADOT Local Government engineer (602) 712-7109	Annual grant; based on eligibility criteria, programming, and prioritization; a set-aside from HSIP funds; administered through FHWA	Local Match: Minimum 10% Federal Share: Maximum 90% <i>For select safety projects, federal share is 100% per 23 USC 120(c)</i>	Public facility with documented crash data that meets ADOT eligibility criteria
ER Program	ADOT LPA Section (602) 712-4428	Competitive reimbursement program based on need; administered through FHWA	For eligible emergency work accomplished within 180 days after disaster, federal share is 100% <i>For projects after 180 days:</i> Local Match: Minimum 5.7% Federal Share: Maximum 94.3%	Disasters declared by governor or president; total damages exceeding \$500,000
FLHP	FHWA program engineer (202) 366-9488	Competitive grant; administered through FHWA or FTA	Local Match: None required Federal Share: 100%	Highways, roads, or transit facilities on federal lands
National Scenic Byways	ADOT state byway coordinator (602) 712-6258	Competitive reimbursement program; administered through FHWA	Local Match: Minimum 20% Federal Share: Maximum 80%	Projects on highways designated as national scenic byways or all-American roads or as state or tribal scenic byways
Recreational Trails	Arizona State Parks trails coordinator (602) 542-7130	Competitive reimbursement program; administered through FHWA	Local Match: Minimum 5% Federal Share: Maximum 95%	Recreational trails and facilities for nonmotorized and motorized uses
HPP/TI	ADOT Government Relations coordinator (602) 712-7685	SAFETEA-LU allocation distributed over 5-year period; administered through FHWA	Local Match: Generally 20% Federal Share: Generally 80% <i>Subject to the exceptions listed in 23 USC 117</i>	Congressionally designated highway projects identified in SAFETEA-LU
PARA	ADOT transportation planner (602) 712-6196	Program funded with federal State Planning and Research funds; administered through FHWA or FTA	Local Match: None required Federal Share: 100% <i>Subject to annual cap</i>	Planning projects for roadway and nonmotorized transport in rural areas, as well as for all tribes
CTIP	FHWA program engineer (360) 619-7668	Competitive grant administered cooperatively by FHWA Federal Lands Highway office and federal land-management agencies	Local Match: None required Federal Share: 100% <i>Subject to \$200,000 maximum</i>	Technology projects for transportation networks on federal public lands
GOHS Grants	GOHS project coordinator (602) 255-3216	Competitive reimbursement grants; administered through GOHS	Local Match: None required Federal Share: 100%	Highway safety projects from state, county, municipal, university, tribal, and nonprofit agencies

Program	Contact	Type	Match Requirements	Eligibility
Coordinated Border Infrastructure Program	ADOT program manager (602) 712-8048	Competitive reimbursement program based on need; administered through FHWA	<p><i>For projects not on the Interstate System:</i> Local Match: Minimum 5.7% Federal Share: Maximum 94.3%;</p> <p><i>For projects on the Interstate System (when funds are used to add high-occupancy-vehicle or auxiliary lanes, but not other lanes):</i> Local Match: Minimum 5.66% Federal Share: Maximum 94.34%</p> <p><i>For select safety projects, federal share is 100% per 23 USC 120(c)</i></p>	Projects within 100 miles of international border and that facilitate goods and services across international border
Section 5304 Statewide Transportation Planning Program	ADOT program manager (602) 712-8239	Competitive formula grant; administered through FTA or FHWA	Local Match: Minimum 20% Federal Share: Maximum 80%	Rural planning and research, statewide planning
Section 5310 Elderly and Disabled Transit	ADOT program specialist (602) 712-7106	Competitive formula grant; administered through FTA	Local Match: Minimum 10% Federal Share: Maximum 90%	Capital assistance for private and public agencies to provide transportation to the elderly and to people with disabilities
Section 5311 Rural Public Transportation	ADOT program manager (602) 712-7465	Competitive formula grant; administered through FTA	<p><i>For administrative and capital project costs:</i> Local Match: Minimum 20% Federal Share: Maximum 80%</p> <p><i>For operating project costs:</i> Local Match: Minimum 42% Federal Share: Maximum 58%</p>	Public transportation systems in rural areas
Section 5316 Job Access and Reverse Commute Program	ADOT program manager (602) 712-7106	Competitive formula grant; administered through FTA	<p><i>For capital and planning project costs:</i> Local Match: Minimum 20% Federal Share: Maximum 80%</p> <p><i>For operating project costs:</i> Local Match: Minimum 50% Federal Share: Maximum 50%</p> <p><i>For administrative project costs up to 10% of total project costs:</i> Local Match: None required Federal Share: 100%</p>	Capital, planning, and operating projects to transport low-income individuals to jobs and activities

Program	Contact	Type	Match Requirements	Eligibility
Section 5317 Rural Public Transportation	ADOT program manager (602) 712-7106	Competitive formula grant; administered through FTA	<p><i>For capital project costs:</i> Local Match: Minimum 20% Federal Share: Maximum 80%</p> <p><i>For operating project costs:</i> Local Match: Minimum 50% Federal Share: Maximum 50%</p>	Services and facility improvements for private and public agencies transporting people with disabilities
Arizona State Aviation Fund and FAA Grants	ADOT Aeronautics grant manager (602) 712-7647	Competitive grants; administered through Arizona State Aviation Fund and FAA	<p><i>State Grants:</i> Up to 90% of eligible costs for a primary airport or up to 95% of eligible costs for a secondary airport</p> <p><i>FAA Grants:</i> Between 75% and 95% of eligible costs</p> <p><i>ADOT Funding for FAA grants issued to public airport owners:</i> 50% of public airport's share of project costs</p>	Public airports with airspace issues

RESOURCES

American Association of State Highway and Transportation Officials Website

<http://www.transportation.org/>

- Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2004
- Guide for the Development of Bicycle Facilities, 1999

ADOT Airport Development Guidelines, Five-Year Airport Development Program and Grant Management

http://www.azdot.gov/docs/default-source/airport-development/airport_development_guidelines_oct_2011.pdf?sfvrsn=2

ADOT Arizona Highway Safety Improvement Program Manual

<http://www.azdot.gov/docs/default-source/traffic-library/azhsip2010.pdf?sfvrsn=2>

ADOT Arizona Strategic Highway Safety Plan

<http://www.azdot.gov/about/transportation-safety/arizona-strategic-highway-safety-plan>

ADOT Bicycle and Pedestrian Program Website

<http://www.azbikeped.org/>

ADOT Bridge Group Website

<http://www.azdot.gov/business/engineering-and-construction/bridge>

ADOT Bridge Inspection Guidelines

<http://www.azdot.gov/docs/default-source/bridge-group/bridgeinspectionguidelines.pdf?sfvrsn=2>

ADOT “Building a Quality Arizona” Website (Statewide Transportation Planning Framework)

<http://www.bqaz.org/>

ADOT Construction Standard Drawings

<http://www.azdot.gov/business/engineering-and-construction/roadway-engineering/roadway-design-standards-and-guidelines/construction-standard-drawings>

ADOT Five-Year Transportation Facilities Construction Program for Highways and Airports

<http://www.azdot.gov/planning/transportation-programming/current-program>

ADOT Historic Preservation Handbook

http://www.azdot.gov/docs/default-source/planning/cultural_hpt_handbook.doc?sfvrsn=2

ADOT Local Government 24-Month Project Schedule

<http://www.azdot.gov/docs/default-source/ppms/local-public-agency-project-schedule---ps2.pdf?sfvrsn=6>

ADOT MGT 02-1 Bicycle Policy

<http://www.azbikeped.org/laws-and-policies.asp>

ADOT MGT-16.01 Department-wide Native Nation/Tribal Government Consultation Policy

http://www.aztribaltransportation.com/PDF/MGT_1601.pdf

ADOT Partnering Website

<http://www.azdot.gov/business/programs-and-partnerships/partnering/overview>

ADOT Program Handbooks and Applications (Sections 5310, 5311, 5316, and 5317 funds)

<http://www.azdot.gov/planning/TransitProgramsandGrants/program-handbook-applications-and-awards>

ADOT Roadway Design Guidelines

<http://www.azdot.gov/docs/default-source/business/roadway-design-guidelines.pdf?sfvrsn=8>

ADOT State Rail Plan

<http://www.azdot.gov/planning/CurrentStudies/PassengerRail/state-rail-plan>

ADOT State Transportation Improvement Program

<http://www.azdot.gov/planning/transportation-programming/state-transportation-improvement-program>

ADOT Systems Engineering and Architecture Compliance (23 CFR 940.11) Checklist

<http://www.azdot.gov/docs/default-source/business/systemsengineeringchecklist.pdf?sfvrsn=2>

ADOT Traffic Engineering Policies, Guides, and Procedures

<http://www.azdot.gov/business/engineering-and-construction/traffic/policies-guidelines-and-procedures-%28pgp%29/policies-guidelines-and-procedures-%28pgp%29>

ADOT Transportation Consultation with Rural Officials Policy

<http://www.azdot.gov/planning/transportation-planning/transportation-consultation-with-rural-officials>

Arizona Bicycle Laws

<http://www.azbikeped.org/images/Arizona%20Revised%20Statutes%20Bicycle%20Laws.pdf>

Arizona Commission of Indian Affairs Tribal Consultation Policies

http://azcia.gov/agency_tribal_consultation_policies.asp

Arizona Governor's Office of Highway Safety

<http://www.azgohs.gov/>

Arizona Governor's Office of Highway Safety Grant Opportunities

<http://www.azgohs.gov/grant-opportunities/>

Arizona Tribal Strategic Partnering Team Membership Packet

http://www.aztribaltransportation.org/atspt/pdf/atspt_Member_Packet.pdf

Arizona Tribal Transportation Website

<http://www.aztribaltransportation.org>

Coordinated Technology Implementation Program Website

<http://ctiponline.org/>

FHWA and ADOT Stewardship and Oversight Agreement for Arizona

<http://www.fhwa.dot.gov/federalaid/stewardship/agreements/az.cfm>

FHWA Bicycle and Pedestrian Program

<http://www.fhwa.dot.gov/environment/bikeped/index.htm>

FHWA Bridge Preservation Guide

<http://www.fhwa.dot.gov/bridge/preservation/guide/index.cfm>

FHWA Fact Sheets on Highway Provisions

<http://www.fhwa.dot.gov/safetealu/factsheets.htm>

FHWA Federal Funding Accountability and Transparency Act Questions and Answers

<http://www.fhwa.dot.gov/transparencyact/qandas.htm>

FHWA Financing Federal-Aid Highways

<http://www.fhwa.dot.gov/reports/financingfederalaid/>

- ▶ FHWA Federal-Aid Financing Procedures
<http://www.fhwa.dot.gov/reports/financingfederalaid/procs.htm>

FHWA Functional Classification Guidelines

<http://www.fhwa.dot.gov/planning/fctoc.htm>

FHWA Guide to Federal-Aid Programs and Projects

<http://www.fhwa.dot.gov/federalaid/guide/index.cfm>

FHWA Guidance - Bicycle and Pedestrian Provisions of Federal Transportation Legislation

<http://www.fhwa.dot.gov/environment/bikeped/bp-guid.htm>

FHWA Manual on Uniform Traffic Control Devices

<http://mutcd.fhwa.dot.gov/>

FHWA MAP-21 Website

<http://www.fhwa.dot.gov/map21/>

FHWA Memorandum on Preventive Maintenance Eligibility

<http://www.fhwa.dot.gov/preservation/100804.cfm>

FHWA Metropolitan Planning Frequently Asked Questions

http://www.fhwa.dot.gov/planning/census_issues/metropolitan_planning/faq2cdt.cfm

FHWA Metropolitan Planning website

<http://www.fhwa.dot.gov/planning/metro/index.htm>

FHWA Railway-Highway Grade Crossing

<http://safety.fhwa.dot.gov/xings/>

FHWA Safe Routes to School Website

<http://safety.fhwa.dot.gov/saferoutes/>

Grants.gov

<http://www.grants.gov/index.jsp>

Maricopa Association of Governments (MAG)

<http://www.azmag.gov/>

MAG Regional Transportation Plan

<http://www.azmag.gov/Communications/publications.asp>

MAG Transportation Improvement Program

<http://www.azmag.gov/Projects/Project.asp?CMSID=1140&MID=Transportation>

MAG Transportation Programming Guidebook

<http://www.azmag.gov/Projects/Project.asp?CMSID=1140&MID=Transportation>

Rural Transportation Advocacy Council

<http://rtac.net/index.htm>

Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Legislation

<http://www.fhwa.dot.gov/safetealu/legis.htm>

SAFETEA-LU Technical Corrections Act of 2008 (Public Law 110-244)

<http://www.gpo.gov/fdsys/pkg/PLAW-110publ244/content-detail.html>

U.S. Access Board Guidelines for Accessible Public Rights-of-Way

<http://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way>

ATTACHMENT 6-1 LOCAL MATCH ESTIMATE SPREADSHEET

FUNDING ESTIMATE FEDERAL & LOCAL SHARE			
Project: SAMPLE	ENTER FEDERAL PERCENTAGE BASED ON PROGRAM		
TIP: SAMPLE	ENTER FEDERAL DOLLARS FROM TIP		
FUNDING DESIGN	FEDERAL FUNDS	LOCAL FUNDS	TOTAL FUNDS
	94.30%	5.70%	100.00%
TOTAL DESIGN	\$100,000.00	\$6,044.54	\$106,044.54
FUNDING RIGHT-OF-WAY	FEDERAL FUNDS	LOCAL FUNDS	TOTAL FUNDS
	94.30%	5.70%	100.00%
TOTAL RIGHT OF WAY	\$200,000.00	\$12,089.08	\$212,089.08
FUNDING CONSTRUCTION	FEDERAL FUNDS	LOCAL FUNDS	TOTAL FUNDS
	94.30%	5.70%	100.00%
TOTAL CONSTRUCTION	\$1,000,000.00	\$60,445.39	\$1,060,445.39
TOTAL FUNDING	FEDERAL	LOCAL	TOTAL PROJECT
	\$1,300,000.00	\$78,579.00	\$1,378,579.00
<p>THIS SPREADSHEET CALCULATES THE LOCAL SHARE FOR DESIGN, RIGHT-OF-WAY AND CONSTRUCTION</p> <p>LOCAL SHARE = ((FEDERAL\$/FEDERAL%)-FEDERAL\$)</p>			



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CHAPTER 7

Scoping

Introduction

Scoping is among the most important aspects of a project. It strengthens the project development process by identifying all aspects of the project that can be determined before the project begins and by allowing the development of a clear plan for resolving them. This chapter discusses the benefits of proper scoping, the timeline for scoping activities, and the topics to consider during scoping.

Overview of Scoping

Scoping should be comprehensive, well documented, and conducted before a project is programmed into a TIP and the STIP. Scoping defines the project schedule and budget (and thus the amount of federal-aid funds required). Projects that are inadequately scoped do not clearly define necessary tasks, which may lead to schedule and budget creep. ADOT encourages LPAs to scope projects as thoroughly as possible and evaluate cost estimates during planning before projects are included in regional TIPs and in the STIP to ensure that adequate funding is obtained. Timely identification of the project purpose and need, along with logical termini, during preliminary scoping is critical to support project advancement. The scoping process is illustrated in Figure 7-1.

Scoping consists of the following:

- ▶ Establishing the project purpose and need
- ▶ Developing a cost estimate
- ▶ Developing a schedule
- ▶ Identifying impacts on ROWs and utilities
- ▶ Identifying options for different solutions
- ▶ Identifying environmental resource issues
- ▶ Identifying design criteria
- ▶ Identifying stakeholders and developing a stakeholder participation plan

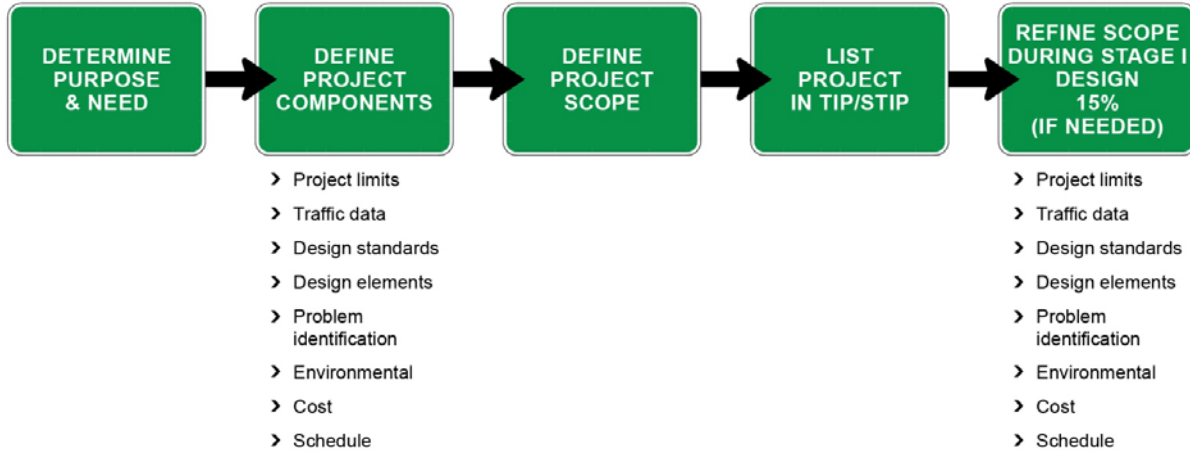


Figure 7-1 Scoping Process

Benefits of Early, Accurate, and Comprehensive Scoping

Benefits of early and accurate scoping include the following:

- ▶ Makes the project more competitive with others being considered for the same limited pool of federal-aid funds, which increases the likelihood the project will be accepted into a TIP and the STIP
- ▶ Increases the likelihood the project can be completed as planned by demonstrating that issues and risks have been fully evaluated and that potential solutions have been identified
- ▶ Makes costs and schedule more predictable
- ▶ Reduces potential need to amend a TIP and the STIP due to changes in project costs, schedule, or scope
- ▶ Provides greater assurance of consultant and construction engineering fees
- ▶ Results in less rework
- ▶ Improves project team coordination
- ▶ Increases public trust

Timeline

As Figure 7-2 indicates, scoping is a continuous activity that begins when a project is first identified by the LPA. Scoping should be substantially complete at the end of the planning/programming phase (by the time the project is entered into a TIP and the STIP). However, while a PA or DCR is being completed during preliminary design, the scope of the project may change. If the previously defined scope of the project expands during preliminary design, delays may result.

Scoping during the Planning/Programming Phase

Whether a project will be ADOT administered, self-administered, or administered by a certified LPA, the fundamental scoping activities that take place during the planning/programming phase are the same.

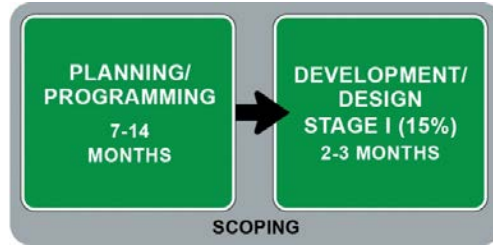


Figure 7-2 Scoping Timeline

Planning

Project planning typically takes place years before project development. During the planning phase, projects may be scoped to consider whether they fit into the LRTP developed at the regional or state level. Some scoping activities, such as corridor planning, center on systemwide needs rather than on a specific project. During this type of scoping, long-term transportation priorities outlined in long-term regional or statewide transportation plans are considered.

Programming

During programming, scoping activities focus on the details of a specific project that will be proposed for inclusion in a local capital improvement program, in a regional TIP and the STIP, or in both. Scoping during the programming phase should involve a formal assessment of the project. The level of scoping should be commensurate with the complexity of the proposed project; should identify any fatal flaws; should define project cost and budget sufficiently to allow the project to be programmed; and should be sufficient to support an analysis of the level of environmental investigations, ROW clearances, and utility/railroad coordination that will be required during the design phase. This degree of scoping should be done for all projects. For projects that will be submitted to the local MPO/COG, the assessment will provide information necessary to complete an application, if the MPO/COG requires one.

MPO/COG staff, ADOT district engineers, and the ADOT project manager assigned to the project can provide valuable assistance to LPAs in developing an accurate, complete scope during the planning/programming phase. Contact information for these entities is provided in Appendix A.

Scoping during the Design Phase

Preliminary Engineering

Early in the design phase, during preliminary engineering activities, scoping is reviewed to refine and further evaluate costs; schedule; relevant design standards; potential design and construction alternatives; likely construction constraints; and anticipated clearances, environmental requirements, or permitting needs. Typically, scoping is completed through the preparation of a PA or DCR in which project-specific evaluations can be made. A fully developed scoping document will provide an LPA with a detailed account of the considerations used to generate potential project needs regarding public and private agency coordination, construction feasibility, and anticipated costs. The complexity of the project will be assessed to determine whether a PA or DCR will be required. Information regarding PA and DCR requirements and content is available on the ADOT Roadway Predesign website under the Scoping Guidelines section (see the Resources list at the end of this chapter for a

link to that site). Scoping documents should provide supporting information on topics including but not limited to the following:

- ▶ Current site characteristics
- ▶ Potential project footprint
- ▶ Major project components
- ▶ Potential project alternatives
- ▶ Environmental resource clearance requirements
- ▶ ROW clearance needs
- ▶ Utility and railroad coordination requirements
- ▶ Landownership
- ▶ Geotechnical investigation needs
- ▶ Hydraulic conditions
- ▶ Cost estimates



During the preliminary engineering phase, LPAs should carefully review scoping completed during the planning/programming phase to ensure that all considerations and recommendations continue to meet current project needs.

Following an evaluation of these items, or other items deemed critical by the LPA for the success of a project, a comprehensive project budget and schedule can be developed and compared to information generated during the planning/programming phase. The scoping results will also provide insight on the type and level of LPA staff and consultants that may be necessary for a project.



ADOT requires that the IGA be amended whenever significant changes occur to the scope and budget of the project, as well as when changes in key staff or project schedule occur.

An initial assessment of potential environmental impacts, called an environmental overview, may also be done at this time. Information generated in the programming phase could suffice for the preliminary engineering purposes; the decision on the acceptability of information will be made by the ADOT project manager in consultation with ADOT EPG staff upon review of the documentation. Note that an environmental overview is not an environmental clearance document.



If at any point during scoping activities it is discovered that funding provided for the project would be inadequate, LPAs should contact their MPO/COG representative and ADOT project manager to discuss amending the TIP and the STIP, respectively, to include the funding necessary to complete the project.

Environmental Scoping

During the design phase, ADOT EPG conducts environmental scoping to meet the requirements of NEPA and other state and federal regulations. Environmental scoping involves communication to public and private entities of the planned project and an identification of environmental resource issues and public concerns. Environmental scoping, depending on the anticipated NEPA document required to authorize the project, may include scoping letters and public involvement (open houses, public hearings, or both). EPG may use consultants to complete the environmental scoping process. LPAs should consult with their ADOT project manager and EPG planner regarding questions about environmental scoping on specific projects (see Appendix A for contact information). Chapter 9, Environmental Clearances, provides a more detailed discussion on environmental scoping.

Scope Changes during Project Development

Even when a project has been thoroughly scoped, conditions or new information that could not be uncovered during the scoping process may result in changes to the project. When this happens, the scope of the project must be modified to reflect the changes, and an amendment to the TIP and STIP must be prepared. LPAs should contact their MPO/COG representative and ADOT project manager as needed for instructions on how to submit amendments to the regional TIP and the STIP, respectively.

Topics to Consider during Scoping

Since the level of scoping is based on the project's level of complexity, certain topics can be considered on a project-by-project basis. Topics that should be considered include, but are not limited to the following:

- Proposed Schedule
- Preliminary Cost Estimates
- Design Elements
- Geometric Design Standards
- Traffic Data
- Environmental Issues
- Problem Identification

A detailed list of items to be considered during scoping under each of these topics is included in Attachment 7-1.

Roles and Responsibilities

Table 7-1 outlines the roles and responsibilities during the scoping process for LPA projects.

Table 7-1 Roles and Responsibilities for Scoping

Task	LPA	MPO/COG	ADOT	FHWA
Initial project identification	Identify project components	Review	Review and approve	N/A
Project changes and, if necessary, amendments to TIP and STIP	Request amendments	Review/amend TIP	Review/amend and approve STIP	Approve STIP amendments
Refinement of scoping, if needed (development of PA/DCR, if required)	Revise scope; prepare PA/DCR as needed	Review revised scope	Review and approve revised scope	Review and concur on full-oversight projects only

RESOURCES

Americans with Disabilities Act Standards for Transportation Facilities

<http://access-board.gov/guidelines-and-standards/transportation/facilities/about-the-ada-standards-for-transportation-facilities>

ADOT Implementation Guidelines for Work Zone Safety and Mobility

<http://azdot.gov/docs/business/work-zone-safety-and-mobility-implementation.pdf>

ADOT Predesign Website

<http://www.azdot.gov/business/engineering-and-construction/roadway-engineering/roadway-predesign-and-review>

U.S. Access Board Guidelines for Accessible Public Rights-of-Way

<http://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way>

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ATTACHMENT 7-1: TOPICS TO CONSIDER DURING SCOPING

A detailed list of topics to consider during scoping follows. Since the level of scoping is based on the project's level of complexity, certain topics can be considered on a project-by-project basis.

Proposed Schedule

- | | |
|--|---|
| <input type="checkbox"/> Dates for Programming of Federal Funds for each phase of work: <ul style="list-style-type: none"><input type="checkbox"/> Preliminary engineering<input type="checkbox"/> Right-of-way (ROW)<input type="checkbox"/> Construction | <input type="checkbox"/> Start dates for the following, as applicable: <ul style="list-style-type: none"><input type="checkbox"/> Survey work<input type="checkbox"/> Environmental work<input type="checkbox"/> Preliminary design work<input type="checkbox"/> ROW acquisition<input type="checkbox"/> Construction |
| <input type="checkbox"/> Transportation improvement program (TIP) year(s) | |

Preliminary Cost Estimates

- | | |
|--|---|
| <input type="checkbox"/> Preliminary engineering cost (including utility relocation, environmental clearances, and potential mitigation) | <input type="checkbox"/> Bridge cost |
| <input type="checkbox"/> ADOT review fees | <input type="checkbox"/> Drainage cost |
| <input type="checkbox"/> ROW cost | <input type="checkbox"/> Maintenance considerations |
| <input type="checkbox"/> Safety improvement cost | <input type="checkbox"/> Construction engineering and contingencies |
| <input type="checkbox"/> Roadway cost | <input type="checkbox"/> Total construction cost |

Design Elements

- | | |
|---|---|
| <input type="checkbox"/> Existing, standard, proposed, and exception aspects of each of the following: <ul style="list-style-type: none"><input type="checkbox"/> Design speed (mph)<input type="checkbox"/> Lane width (ft)<input type="checkbox"/> Shoulder width (ft)<input type="checkbox"/> Bike lane width (ft)<input type="checkbox"/> Sidewalk width (ft)<input type="checkbox"/> Bridge length and width (ft)<input type="checkbox"/> Horizontal curvature (minimum radius) (ft)<input type="checkbox"/> Vertical curvature (crest) (K value) | <ul style="list-style-type: none"><input type="checkbox"/> Vertical curvature (sag) (K value)<input type="checkbox"/> Grade (maximum) (%)<input type="checkbox"/> Stopping sight distance (minimum) (ft)<input type="checkbox"/> Cross slope (minimum) (%)<input type="checkbox"/> Superelevation (maximum) (%)<input type="checkbox"/> Vertical clearance (ft)<input type="checkbox"/> Superelevation runoff (at maximum elevation) (%)<input type="checkbox"/> Run-out length and taper rate |
|---|---|

Geometric Design Standards

- Type of project
- Design standards
- Type of terrain

Traffic Data

- Functional classification
- Current and projected average annual daily traffic, as well as peak-hour traffic if applicable
- Crash history (injuries, fatalities, and trends)
- Crash location proximity (mile point)

Environmental Issues

Biological resource issues

- Threatened and endangered species
 - Fish, wildlife, and plants
- Local special status species
- Nonlisted wildlife issues
 - Migratory Bird Treaty Act compliance
 - Wildlife passage

Cultural resource issues

- Historical considerations
 - Bridges, structures, or buildings
 - Section 106 considerations
- Archaeological sites
 - Known or possible sites
 - Section 106 considerations

Air Quality

- National Ambient Air Quality Standards compliance (NAAQS) attainment status
- Mobile Source Air Toxics (MSAT) compliance
- Local dust control requirements

Noise issues or concerns

- Noise analysis required for Type 1 projects

Required land use actions

- Conditional uses
- Farm or forest land uses
- Industrial uses

Section 4(f) concerns

- Parks
- Recreation areas
- Wildlife refuges
- School playgrounds
- Other 4(f) concerns

Section 6(f) concerns

- Park acquisition through the Land and Water Conservation Fund (LWCF) Act

Hazardous materials issues

- Preliminary initial site assessment (PISA)
- Asbestos and lead-based-paint testing

Water resource issues

- Waters of the United States
 - Known or possible wetlands
- Mitigation sites
- Erosion and riparian considerations

- Riprap
- Seeding and mulching
- Tree plantings
- Stormwater Pollution Prevention Plan
- Water quality issues or concerns
- Floodplain
- In-water work period
 - Identification of tributary to body of water or drainage outfall

Socioeconomic issues

- Analysis of adverse economic, social, and environmental effects on a community or group of people
- Relocation impacts
- Environmental justice and Title VI

Visual resource issues

- Visual impact assessment

Federal agency coordination

- U.S. Fish and Wildlife Service
- State Historic Preservation Office
- Bureau of Indian Affairs and/or local tribes
- Federal land management agencies
- Other coordination for required easements or permits

Required permits

- U.S. Army Corps of Engineers permits (e.g., Section 404, Section 10, etc.)
- Stormwater discharge permit (Section 402)
- Water quality certification (Section 401)
- Railroad crossing order
- Other state or local permits
 - County floodplain permit
 - Dust control permit
 - Native plant removal

Problem Identification

Problem identification includes but is not limited to the following items.

Project limits

- Prior project limits
- Missed sections
- Appropriate start and end points
- Safety
- Funding limits

Construction access

- Staging area location
- Constructability considerations

ROW needs

- How will ROW be paid for?
- Who will prepare ROW descriptions and maps?

- Who will perform appraisals and negotiations work?

Surveying needs

- Construction staking and surveying
- Location of underground utilities

Utility conflicts

- Underground and overhead conflicts

Traffic control

- Temporary traffic control plan
- Transportation management plan, if applicable (see ADOT's *Implementation Guidelines for Work Zone Safety and Mobility*, referenced in the Resources list for this chapter)
- Detours

- Construction staging
- Road closures, lane restrictions, or both
- Temporary bridges
- Emergency access routes
- Intelligent Transportation Systems

Crash history

- Crash problems (by location, trends and patterns, or both)
- Traffic crash reports
- Sight distance

Typical section, design speed, and pavement needs

- Lane width versus design standards
- Roadway widening, leveling, and subgrade repair
- Pavement design

Shoulders and ditches

- Adequate width
- Slopes
- Shoulder rock
- Ditch work
- Safety edge

Road approaches and accesses

- Pavement or gravel
- Need for closures
- Sight-distance problems
- Alignment and spacing

Bridge-approach needs

- Impact panels
- Expansion joints

Bridge, retaining walls, and structure needs

- Number of spans proposed

- Bridge railing
- End treatments

Drainage needs

- Fish culverts
- Damaged or plugged culverts
- Culvert extensions, additions, or removals
- Off-site drainage
- Flooding problems
- Catch basins
- Ditches

Illumination and signaling needs

- Illumination
- Traffic signals
- Historic or ornamental street lighting
- Permanent or temporary signals

Guardrail needs

- Repair, replacement, extension, addition, or removal
- Appropriate length of need
- End treatment type

Hydraulics considerations

- Scour
- Erosion
- Riprap and other control measures
- Federal Emergency Management Agency (FEMA) guidance

Geotechnical considerations

- Foundation
- Environmental clearances
- Geology
- pH and resistivity
 - Drilling requirements
 - Surcharge

Signage and markings

- Signing requirements
- Pavement striping
- Other pavement markings
 - Replacement, upgrade, or new installation
 - Signing plans
 - Delineators
 - Striping plans
 - Durable stripe products
- Retroreflectivity
- Rumble strips

Special design features to be addressed

- Existing slopes versus design standards
- Horizontal and vertical alignment versus design standards

Design exceptions and concurrences

- Vertical and horizontal clearances
- Alignments
- Bridge widths and rail
- Shoulder and lane widths
- Side slopes
- Clear zone

Political or controversial issues

- Anything that could delay project
- Construction timing
- Railroad crossings
- Approved/planned development

ADA requirements (see Chapter 16, Civil Rights for more information)

- Curb and median ramps and blended transitions
- Sidewalks
- Pedestrian access routes
- Accessible crossings
- Detectable warning surfaces
- Accessible signals and push buttons

Miscellaneous items

- Mailbox needs
 - Replacement, relocation, or consolidation
- Fencing
- Gates
- Bollards (traffic-barrier posts)
- Landscaping
- Borrow pits

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CHAPTER 8

Development/Design

Introduction

This chapter provides an overview of the development/design phase of a project. It is during the design process that the project progresses through the steps needed to achieve construction-ready design plans and project specifications and estimates. Items discussed in this chapter include project authorization and funding, timelines, consultant selection, design process and stages, roles and responsibilities, issue resolution, and recordkeeping and reporting.

ADOT-administered projects will follow the five-stage ADOT development/design process described in this chapter, but self-administered and Certification Acceptance projects may follow the LPA's own design process. However, all projects receiving federal-aid funds for design or any other project activities must comply with all applicable federal design standards, requirements, and regulations. For self-administered and Certification Acceptance projects, LPAs must have their project 100% design plans, specifications, and estimates (PS&Es) approved by ADOT C&S before advertising the project for bid.



Self-administered and certified LPAs with federally funded projects may follow their own design process, but they must comply with all applicable federal design standards, requirements, and regulations. Self-administering and certified LPAs must have their project PS&Es approved by ADOT C&S before advertising the project for bid.

Overview of Development/Design Process

The development/design process consists of five stages (Figure 8-1) and includes the following:

- ▶ Attendance at a predesign conference
- ▶ Scoping and other preliminary engineering activities, such as PAs and DCRs
- ▶ Environmental documents and clearances; ROW clearances; utility and railroad clearances, and materials report clearances

- ▶ Design activities from 15% design plans through 100% design PS&Es

Only scoping activities related to the design phase are discussed in this chapter; for a more detailed discussion of project scoping, see Chapter 6, Planning/Programming, and Chapter 7, Scoping.

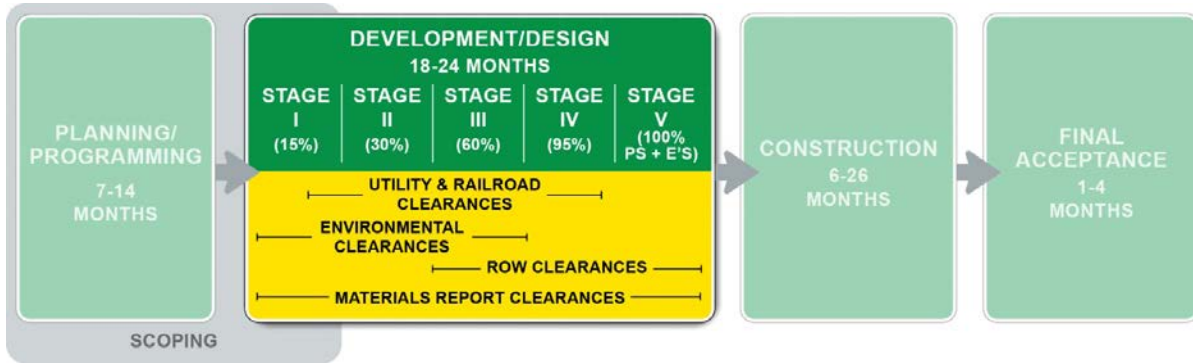


Figure 8-1 Development/Design in the Project Life Cycle

ADOT Design Review

LPA’s will be assessed a design review fee for ADOT-administered and self-administered projects to recover ADOT’s costs for design review and bid-package preparation while administering project development and advertisement. The amount of this fee is currently under deliberation. The review fee is due at the time of project initiation (i.e., when the TRACS and federal-aid numbers are requested and assigned). See the Initiating an LPA Project section in Chapter 2, ADOT Administration, for additional information on project initiation.

Review Times for Plans, Specifications, and Estimates

When preparing the schedule for development, design, and PS&Es, LPAs should account for ADOT’s review, comment resolution, and approval time frames for each submittal, as well as timelines for project-related activities such as environmental clearances, geotechnical investigations, ROW clearances, and utility and railroad clearances. The ADOT project manager will agree on a review schedule/duration time for each submittal stage at the predesign conference.

Consultant Selection for Design

ADOT will select design consultants for ADOT-administered projects from its on-call list of approved consultants that is managed by ADOT ECS. Self-administering and certified LPAs may also request that ADOT select a consultant from ECS’s on-call list.

LPAs that have been approved to self-administer consultant selection activities during the development/design phase may select their own consultants for projects that are exempt from the Arizona Procurement Code (i.e., projects involving construction or reconstruction of highway or transportation facilities) following their ECS-approved consultant selection process. More information regarding ECS’s consultant selection process and exemptions to the Arizona Procurement Code is located in Chapter 18, Contracting, Consultant Selection, and Procurement. Certified LPAs are approved to select their own consultants for exempt and nonexempt projects.

Self-administering and certified LPAs must follow their ECS-approved consultant selection process if receiving federal-aid funds for development/design activities. LPAs that decide to select their own professional design consultants are advised to select registered professionals who are experienced with ADOT processes.

Postdesign Activities

Unless LPAs intend to complete all construction-related postdesign efforts, shop-drawing reviews, materials certifications, and other similar construction tasks with in-house staff, they should ensure that a consultant is under contract before the start of construction to perform these duties. Postdesign services are required on all projects and may be performed by the LPA or contracted with the consulting firm that is designing the project. Authorized postdesign costs are federally reimbursable.



CAUTION

In order for postdesign costs to be reimbursed with federal-aid funds, these costs must be included in the request for authorization.

Funding and Authorization

As discussed throughout this manual, ADOT has a responsibility to distribute and allocate federal funds for LPA projects consistent with all applicable state, federal, and tribal laws, regulations, and requirements. LPA projects that are eligible for federal funding must be included in a regional TIP and in the STIP and must have a fully executed IGA (if necessary) before being authorized for federal funds. See Chapter 6, Planning/Programming, for a detailed discussion of the process for including LPA projects in TIPs and the STIP.

Federal-aid funding authorization for the design phase covers predesign, scoping, environmental clearances, and preliminary and final design activities. LPAs should be prepared to meet state and federal requirements that normally would not be required for locally funded projects. These additional requirements may result in activities and time frames that may be unfamiliar to many LPAs. It should be noted that federal authorization must be secured before project work begins on any activity in which federal funds are used. Subsequent authorizations are required for ROW acquisition and for the construction phase. The Funding Sources and Eligibility section in Chapter 6, Planning/Programming, contains information about federal authorizations, specific funding sources, and local match requirements.



CAUTION

LPAs must obtain federal authorization before design work begins for any activity in which federal-aid funds are being used. Project development costs incurred before the federal authorization effective date for that activity will not be reimbursed.

Development/Design Timeline

While each project is different, a typical project will take 18 to 24 months to proceed from the submittal of a scoping document to bid advertisement. Figure 8-2 identifies approximate time frames associated with various project development and design stages; not all stages shown will be necessary for every project. The project can be expedited to meet the LPA's needs depending on the project type, and if there are only minimal environmental, utility, and ROW impacts (e.g., Intelligent Transportation System improvement projects). However, if environmental, utility, or ROW impacts are not minimal, some of the procedural requirements can significantly affect the project's schedule and cost.



CALENDAR WATCH

Some procedural requirements can significantly affect the project's schedule and cost. For instance, the environmental clearance process can take as little as a few months or may take more than 3 years depending on the complexity of the project. The typical environmental clearance process takes 10 to 12 months from initial submittal to environmental clearance, but the time needed to achieve environmental clearance varies from project to project, depending on the potential for environmental impacts and the level of documentation needed.

When establishing the project's scheduled bid-advertisement date, it is advisable to start with the anticipated construction start date and work backward to determine when project development should start in order to achieve a realistic project development schedule. The expected construction start date is typically 2½ months after the bid-advertisement date.



CALENDAR WATCH

Design of LPA projects must begin within 1 year of when the project is authorized and obligated for federal-aid funds.

Design Stages

For a typical project, ADOT's design process is segmented into phases, also called stages, that follow a standardized design progression: Stage I (15% design), Stage II (30% design), Stage III (60% design), Stage IV (95% design), and Stage V (100% design, also known as final PS&Es). The principal submittal and product requirements for each stage are described in the next sections and listed in Table 8-1, and are further elaborated in the *Dictionary of Standardized Work Tasks*. Since each project is different, the scope of the development/design work and the expectations for each stage submittal must be coordinated with the ADOT project manager and with the appropriate ADOT review groups at the predesign conference and throughout development/design. All submittals must be made directly to the ADOT project manager.

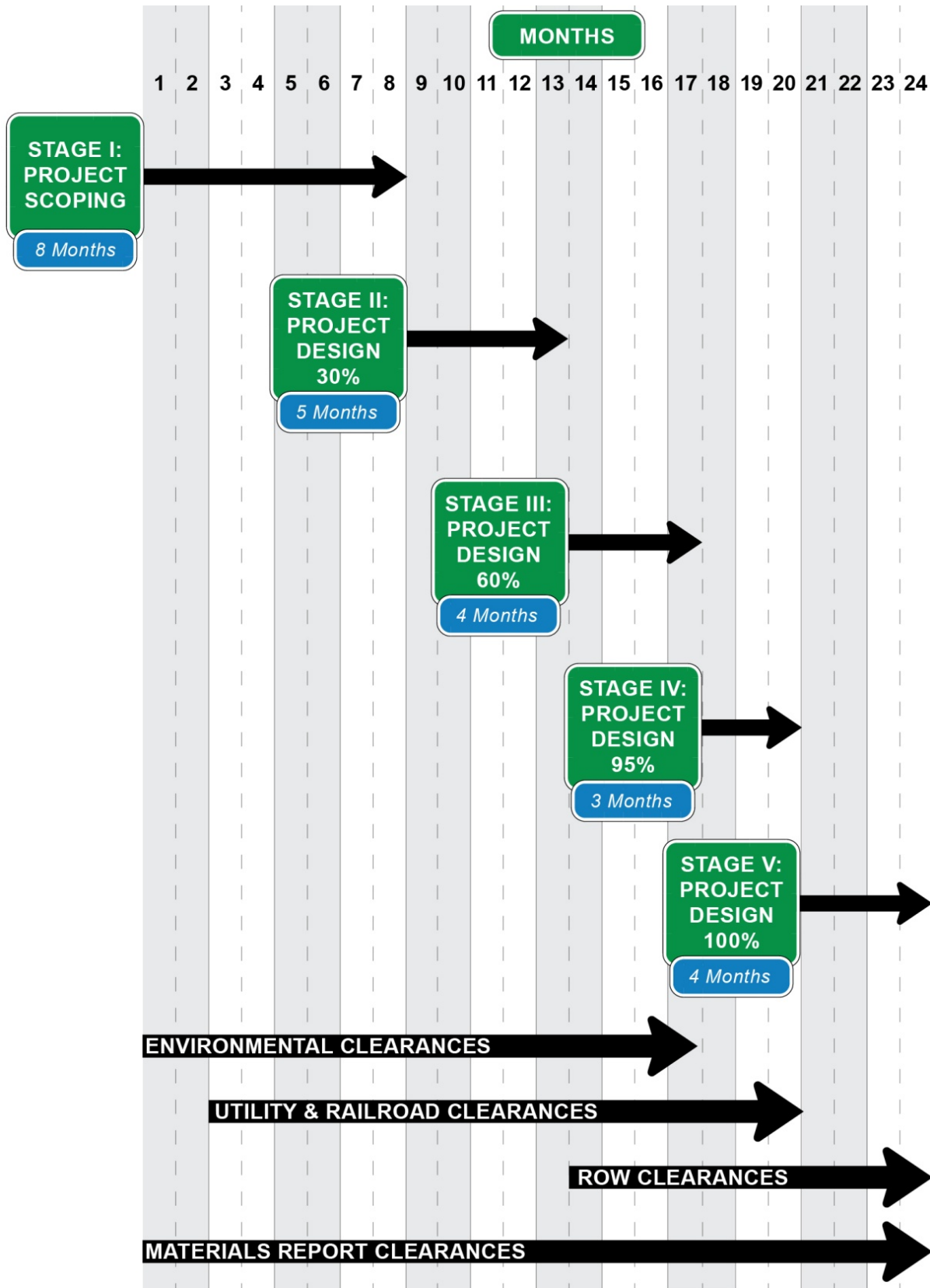


Figure 8-2 Approximate Time Frames Associated with Design Stages

Stage I Design (15% Plans)

Stage I design consists of scoping and other preliminary engineering activities up to the 15% completion level. Standard activities and products include survey mapping, preliminary roadway alignment plans, and cross sections. DCRs, PAs, and scoping letters may also be generated during this stage, in accordance with the scope of work identified in the project agreement and IGA. Stage I submittals must include those items identified in Table 8-1, unless other submittal agreements have been made.

Stage II Design (30% Plans)

Stage II design includes scoping and other preliminary engineering activities up to the 30% level. DCRs, PAs, and scoping letters may be updated during this stage as agreed to by the ADOT project manager. In addition to the required items listed in Table 8-1, Stage II submittals must also include copies of letters sent to affected utility companies to request the status of utility conflicts and, if applicable, to request a utility relocation schedule for ADOT’s review.

Stage III Design (60% Plans)

Stage III design submittals must include the required items listed in Table 8-1 and in the *Dictionary of Standardized Work Tasks*, unless modified in writing by the ADOT project manager. Additionally, if applicable, an office and a field review will be held after the Stage III design submittal to review the proposed roadway alignments or bridge sites.



The design process for federally funded projects should not proceed beyond Stage III design (60% plans) without final NEPA clearance. Project work proceeding beyond Stage III design before obtaining NEPA clearance, without prior approval by ADOT and FHWA, is considered “at risk” and potentially may not be reimbursed. Refer to Chapter 9, Environmental Clearances, for more information.



It may benefit LPAs to submit 60% plans to ADOT C&S to check for any potential design issues in order to avoid delays during final approval of 100% PS&Es.

Stage IV Design (95% Plans)

Stage IV design consists of a full distribution of the in-progress PS&Es for review by ADOT and the project team. Stage IV design submittals should include the required items listed in Table 8-1 and in the *Dictionary of Standardized Work Tasks*, unless modified by the ADOT project manager.

Stage V Design (100% Plans, Specifications, and Estimates)

The preparation of the 100% PS&Es is the final stage in the design development process. Typically, a limited distribution of prefinal submittals should be expected if there were unresolved comments from the Stage IV submittal. Once the technical reviewers are satisfied with the prefinal PS&Es, the final documents are sealed and signed. The final PS&E submittal must include the required items listed in Table 8-1 and in the *Dictionary of Standardized Work Tasks*, unless modified by the ADOT project manager.

Table 8-1 Design Submittal Requirements by Stage

Contract Document Item	Stage I	Stage II	Stage III	Stage IV	Stage V (Final PS&Es)
Face sheet		P	F	F	S
List of standard drawings			P	F	S
Design sheet and index			P	F	S
Summary sheets			P	F	S
Special detail drawings			P	F	S
Typical roadway sections	I	P	F	F	S
Geometric control sheets		P	F	F	S
Existing conditions and removal sheets		P	F	F	S
Removal summary		P	F	F	S
Roadway plan and profile sheets	P	F	F	F	S
Detour sheets		P	F	F	S
Parking area plans and details		P	F	F	S
Staking plans		P	F	F	S
Fencing plans		P	F	F	S
Drainage plans and details		P	F	F	S
Intersection plans and details		I	P	F	S
Interchange plans and details		P	F	F	S
Major structural plans and details		I	P	F	S
Traffic signal plans and details		I	P	F	S
Traffic-control plans and details		I	P	F	S
Sequence of constructions		I	P	F	S
Traffic-control duration and quantities		I	P	F	S
Signing and pavement marking plans and quantity			P	F	S
Lighting plans and details			P	F	S
Landscape plans and details			P	F	S
Utility prior-rights documentation			F		
Utility special provisions			I	P	F
Utility report		I	P	F	
Utility clearance letter				P	F (sent before final submittals)
Utility service agreements				P	F
Stormwater pollution prevention plan			P	F	S

Contract Document Item	Stage I	Stage II	Stage III	Stage IV	Stage V (Final PS&Es)
Topsoil plating sheets			P	F	S
Special drawings and details			P	F	S
Roadway cross sections		P	F	F	F
Quantities and combined cost estimate		P	P	F	F
Special provisions			P	F	S
Construction schedule			P	F	S
DBE participation goals				P	F
Bidding schedule			P	F	F
Final design calculations				F	S
Bound survey books	F	S			
ROW requirements		P	F		
Drainage report (roadways)		P	F	S	
Drainage report (structures)		S			
Traffic analysis report		S			
Bridge foundation report		S			
Structure selection report		S			
Pavement design summary		S			
Geotechnical report		S			
Environmental permits		P	F		
Environmental mitigation measures	I	P	F		
Materials design report		P	S		
Arizona State Plane coordinates		S	F	F	S
CADD files (graphic, ASCII, dtm, etc.)		P	F	F	S

Table Source: Documents Required for Design Phase Submittals available on the ADOT ITD Project Administration Documents website and the Submittal Checklist available on the ADOT Statewide Project Management website.

Table Key: I = initial concepts; P = preliminary and unchecked (excludes minor details); F = final and checked (all details and quantities); S = sealed documents (in accordance with technical registration requirements).

Upon completion of any revisions requested by ADOT C&S, the LPA will be sent final PS&Es for approval. The LPA is required to send a written response to C&S that authorizes ADOT to advertise the project for bid. The approval of the final PS&E package for advertisement is considered an agreement between ADOT and the LPA to fund the project as shown on the final project estimate recapitulation sheet. The detailed estimate recapitulation sheet is prepared by the LPA and must be submitted to the ADOT project manager (see Attachment 8-1 for a sample ADOT recapitulation agreement spreadsheet). The sheet must include the following:

- 15% for construction engineering (i.e., construction administration) to cover ADOT administration costs during the construction phase of the project.
- 5% for construction contingency to account for potential cost overruns.
- 1% for consultant services to cover the postproject fee for postdesign activities.

These costs are eligible for federal reimbursement at the pro rata rate for the program in which the project is funded. Unused local matching funds can be refunded by ADOT. ADOT will advertise the project for bid, upon the LPA's receipt of authorization. See the Advertisement, Bidding, and Award section in Chapter 13, Construction, and Chapter 18, Contracting, Consultant Selection, and Procurement, for more information on bid advertisement.

Scoping and Preliminary Engineering

Scoping documents and preliminary engineering activities begin during Stage I design in accordance with the scope of work identified in the project agreement and IGA, and may be further assessed and updated during later stages as agreed to by the ADOT project manager.

Preliminary Engineering

Following the receipt of federal-aid funding authorization for preliminary engineering, LPAs can commence preliminary design activities and establish an anticipated bid-advertisement date. Preliminary engineering during the development/design phase should refine and further evaluate costs; schedule; relevant design standards; potential design and construction alternatives; likely construction constraints; and anticipated clearances, environmental requirements, or permitting needs. Preliminary engineering is broken down into three types: Phase I, Phase II, or Single Phase. Phase I preliminary engineering activities can include surveys, base maps, existing and new title reports, research, staff time, supplemental service employees, and other charges. Phase II preliminary engineering requests are used for ROW plans and early parcel acquisition on projects requiring an environmental impact statement (EIS) or environmental assessment (EA) or where there may be multiple alternatives. Single Phase preliminary engineering is used for projects covered by a categorical exclusion (CE) environmental document subject to the following conditions: the preliminary engineering work will not have an adverse environmental impact, the preliminary engineering work will not limit reasonable alternatives, and no final design work will be done until the environmental document is completed. It should be noted that ROW acquisition and relocation activities must be authorized under a separate FHWA funding request in order for those costs to be reimbursed.



If at any point during preliminary engineering activities it is discovered that funding provided for the project is inadequate, the LPA must contact their MPO/COG representative and ADOT project manager to discuss amending the TIP and the STIP, respectively, to include the funding necessary to complete the project.

Typically, scoping in the preliminary engineering phase is achieved through the preparation of PAs or DCRs in which project-specific evaluations are made. A fully developed scoping document will provide an LPA with a detailed account of the considerations used to generate potential project needs regarding public and private agency coordination, construction feasibility, and anticipated costs. The scoping results will also provide insight on the type and level of LPA staff and consultants that may be necessary for a project.

Project Assessment

A PA, including a detailed cost estimate and project schedule, is a valuable tool for adequately scoping projects. A PA or similar scoping document is intended to ensure that project components have been sufficiently defined, a reliable cost estimate has been established, and a schedule meeting the LPA's desired construction start date has been developed. If properly scoped during the planning/programming phase, information generated at that time can be refined as the project progresses in order to further evaluate costs; schedule; relevant design standards; potential design and construction alternatives; likely construction constraints; and anticipated clearances, environmental requirements, or permitting needs.



Project scoping during the planning/programming phase is required by the MPO/COG for prioritizing and programming LPA projects and adding projects to the TIP. It is recommended that the level of scoping completed during the planning/programming phase be similar to the level provided in a PA or equivalent scoping document completed during the development/design phase in order to ensure adequate project funding. However, scoping may be further refined during the development/design phase.

Design Concept Report

For more complex projects, such as the construction of additional travel lanes, project scoping may involve the preparation of a DCR. For ADOT-administered projects, the need for a DCR will be determined at a predesign conference administered by the ADOT project manager and the LPA. All DCRs must include a completed project schedule; preliminary project plans (to 15% design), details, and cross sections; and a detailed cost estimate based on the format provided at the predesign conference.

Environmental Scoping

Environmental scoping is the beginning of compliance with NEPA. Information discovered during this phase can affect the project scope. LPAs are responsible for developing all needed environmental information and data to substantiate determinations for all projects (including ADOT-administered, self-administered, and Certification Acceptance projects) and for submitting the required reports to the ADOT project manager in accordance with ADOT format requirements. ADOT EPG will review and approve environmental clearance documentation provided by LPAs on all LPA projects.

The NEPA environmental process is highly structured and can be time consuming. LPAs must become familiar with the information and documentation requirements and the amount of time needed to complete an environmental clearance. Preliminary engineering work can be completed through 30% design plans without an environmental clearance, but environmental clearances must be obtained before initiating 60% design plans. Additional information regarding environmental clearances can be found in Chapter 9, Environmental Clearances.

Subsurface Utility Engineering

Subsurface utility engineering (SUE), often called “potholing,” is the process for obtaining accurate and comprehensive information about underground utilities. If these potholing services are needed for the project, the need must be described in the PA or scoping document. Chapter 13, Construction, identifies requirements for locating utilities during the construction phase of a project. Refer to Chapter 18, Contracting, Consultant Selection, and Procurement, for contracting services that are eligible for reimbursement through federal-aid funding.



Since potholing is a ground-disturbing activity, separate environmental clearance is necessary to complete this work. The LPA should coordinate with the ADOT project manager to obtain clearance through ADOT EPG.

Right-of-Way, Utility, and Railroad Clearances

ROW, utility, and railroad clearances are required during the development/design process, and they involve various activities that occur during the design stages. Additional information regarding ROW clearances can be found in Chapter 10, Right-of-Way Clearances, and information regarding utility and railroad clearances can be found in Chapter 11, Utility and Railroad Coordination.

Materials Report Clearances

All materials incorporated in federally funded LPA projects must comply with ADOT standards and guidelines. LPAs are responsible for obtaining all applicable approvals and clearances for materials to be used on federally funded projects. LPAs are also responsible for coordinating all activities related to accomplishing the preliminary engineering survey and pavement design that may be required for a federally funded project. If required for the project, the final materials design report, along with compliance documentation, must be submitted with 60% design plans. Additional information regarding requirements for materials report clearances can be found in Chapter 12, Materials Report Clearances.

Design Process

Design Criteria

Design criteria and standards are important so that project designs provide for safe and fully functional transportation-related facilities. The principal design standards for federally funded LPA projects in Arizona consist of those established by AASHTO, MAG, and PAG. The following guidance documents include primary design criteria that may be applicable to LPA projects (see the Resources list at the end of this chapter for links to these documents):

- ▶ AASHTO's *Policy on Geometric Design of Highways and Streets* (i.e., the Green Book)
- ▶ AASHTO's *Guide Specifications for Highway Construction*
- ▶ FHWA *Manual on Uniform Traffic Control Devices*
- ▶ U.S. Access Board *Guidelines for Accessible Public Rights-of-Way*
- ▶ MAG standard specifications
- ▶ PAG standard specifications
- ▶ ADOT specifications

For projects that require conformance to ADOT design criteria, the LPA should refer to the standards and guidelines identified in ADOT's *Roadway Design Guidelines* and the *Dictionary of Standardized Work Tasks* (Section 200) (see the Resources list at the end of this chapter for links to those documents). The ADOT project manager will assist the LPA in determining whether an ADOT design criterion applies to a project.

For projects off the NHS, locally adopted specifications, plans, standards, ordinances, and regulations (e.g., street themes, overlay districts, county specifications) may also become criteria for final project design. Additional requirements may also be placed on the project by tribal, state, and federal landowners who are affected by the project.

All federally funded LPA projects must comply with applicable AASHTO design standards and criteria. LPAs may also use ADOT, MAG, PAG, or other local design standards and criteria for a project. However, for ADOT-administered and self-administered projects, project specifications must be approved by ADOT C&S before advertising for bid. ADOT-administered projects must also meet ADOT drafting standards, guidelines, and submittal requirements. For self-administered projects, LPAs are not required to use ADOT drafting standards, guidelines, and submittal requirements but are encouraged to do so since it may expedite the ADOT design review process. LPAs should coordinate with the ADOT project manager to confirm submittal requirements for ADOT-administered and self-administered projects before design review. A listing of submittal requirements can be found in Table 8-1.

Design Exceptions

The LPA or its consultant is responsible for meeting the design criteria set for each particular project. Should the project not be able to meet the design criteria, the LPA must request a design exception. Design exceptions are rare but may be required when trying to apply established design criteria in constrained areas. Design exceptions need to be justified and must apply sound engineering decisions. The following are typical reasons for requesting design exceptions:

- ▶ Excessive construction cost or cost-benefit ratios
- ▶ Steep terrain
- ▶ Preservation of historic property or scenic value
- ▶ ROW constraints
- ▶ Environmental impacts

FHWA recognizes 13 controlling criteria from the AASHTO policy that must be met. The 13 criteria are listed in FHWA's *Mitigation Strategies for Design Exceptions* and are discussed in more detail in ADOT's *2009 Guide for Review of the AASHTO Controlling Design Criteria on Existing ADOT Roadways* (see the Resources list at the end of this chapter for links to those documents). If these 13 controlling criteria cannot be met, a design exception must be requested and approved before incorporation into a project. FHWA retains responsibility and authority to approve all design exceptions to AASHTO criteria for projects on the NHS, which includes the Interstate System; ADOT approves design exceptions to any required design standards or criteria for all projects off the NHS. The ADOT process for considering design exceptions is found in ADOT's *Design Exceptions and Design Variances Process Guide* (see the Resources list at the end of this chapter for a link to that guide). The LPA should consult with the ADOT project manager to discuss or request potential design exceptions.

Value Engineering

Value engineering (VE) is defined as the systematic application of recognized techniques by a multidisciplinary team to identify the function of a product or service, to establish a worth for that function, to generate alternatives through the use of creative thinking, and to provide the needed functions to accomplish the original purpose of the project reliably and at the lowest life-cycle cost. This should be accomplished without sacrificing safety, necessary quality, and environmental attributes of the project. Successful application of the VE process can contribute measurable benefits to the quality of a transportation improvement project and to the effective delivery of the overall FAHP. If deemed necessary by the ADOT project manager, VE activities should be performed before completion of final design and preferably during 30% design plans. VE activities must be implemented as a condition of requesting FHWA construction funding authorization for all projects on the NHS (including the Interstate System) with an estimated cost of \$25 million or more that use FAHP funding, all bridge projects with an estimated total cost of \$20 million or more (attributed to the replacement of the bridge) that use FAHP funding, and any federal-aid project on the NHS designated by the Secretary of Transportation. VE can also be performed after award of the construction contract but does not replace the requirement of doing VE activities before award. See Subsection 104.13 of the ADOT *Construction Manual* and the FHWA Value Engineering website for more information (see the Resources list at the end of this chapter for links to those resources).

Projects on Federal, State, and Tribal Lands

Federal Land

For projects on federal land, specifically BLM and U.S. Forest Service (USFS) land, ADOT has developed and published *Guidelines for Highways on Bureau of Land Management and U.S. Forest Service Lands 2008*. This guide provides a good indication of the efforts and scope of tasks expected for projects occurring on federal land managed by those agencies. The guide also provides the separate memorandums of understanding held with the BLM and USFS. A link to those guidelines is included in the Resources list at the end of this chapter.

Projects on federal land managed by other agencies may have additional requirements that relate to development/design. Contact should be made early in the project development process to ensure that those requirements are considered.

State Land

LPA should be aware that projects on State Trust land may be subject to additional requirements, including cultural and biological resource surveys, avoidance of sensitive species, and compliance with the Arizona Native Plant Law.

Tribal Land

The process for LPA projects on tribal land is similar to projects on nontribal land. However, projects on tribal land may have additional requirements that relate to development/design. It is critical to establish key contacts and protocols for tribal submittals and reviews early in the project development process to ensure that those requirements are adequately considered. The ADOT project manager should coordinate with tribal representatives to establish tribal preferences for receiving submittals (either electronic or hard copy), plan review protocols, and to determine time frames for tribal reviews. Tribal review and approval processes vary widely among tribes. Schedules for tribal involvement, such as reviews and approvals, can only be established after contacts have been made with the affected tribe. A list of all Native American tribal contacts is maintained by ADOT LPA Section and the ACIA. LPAs should contact their ADOT project manager to determine what additional requirements may apply to a given project.



LPAs should be aware that schedule delays may occur if federal, state, or tribal lands are affected by the project.

Civil Rights Compliance

ADOT is committed to implementing and obtaining compliance with all civil rights programs to ensure nondiscrimination and, as a primary recipient of federal funds, has the responsibility for compliance monitoring on federally funded transportation projects.

See Chapter 16, Civil Rights, for information regarding the responsibilities of ADOT and the LPA to ensure civil rights compliance during development/design.

Recordkeeping and Reporting

Recordkeeping and reporting are essential responsibilities of each LPA during the development/design of a project. In accordance with ARS 35-214, LPAs must retain records for a minimum of 5 years following FHWA closeout of the project in the FMIS.

Roles and Responsibilities

ADOT is responsible for managing development/design activities on ADOT-administered projects (see Table 8-2).

Table 8-2 Roles and Responsibilities for Development/Design—ADOT-Administered Projects

Task	LPA	ADOT	FHWA
Scoping activities, such as PAs and DCRs	Prepare appropriate scoping document	Review and approve scoping document	N/A
Environmental clearance (see Chapter 9, Environmental Clearances)	Prepare appropriate environmental documents for approval before beginning Stage III design plans	Review and approve documents for environmental clearance	Review and approve documents for environmental clearance
ROW clearance (see Chapter 10, Right-of-Way Clearances)	Obtain all information and prepare appropriate documentation to complete process	Review and issue clearance documents	Review and approve authorization to proceed
Utility and railroad clearance (see Chapter 11, Utility and Railroad Coordination)	Obtain all information and prepare appropriate documentation to complete process	Review and issue clearance documents	Review and approve relocations and grant authorization
Stages I through V design submittals	Prepare design plans	Review and approve design plans	N/A
Advertisement and bid	Send written response to ADOT C&S that authorizes ADOT to advertise the project for bid	Advertise the project for bid	N/A

LPA's are fully responsible for managing development/design activities and cost estimates for self-administered and Certification Acceptance projects (see Table 8-3). For additional information regarding LPA roles and responsibilities related to project management, see Chapter 3, Self-Administration; Chapter 4, Certification Acceptance; and Chapter 5, Managing the Project.

Table 8-3 Roles and Responsibilities for Development/Design—Self-Administered and Certification Acceptance Projects

Task	LPA	ADOT	FHWA
Scoping activities, such as PAs and DCRs	Prepare appropriate scoping document	Review and approve scoping document	N/A
Environmental clearance (see Chapter 9, Environmental Clearances)	Prepare appropriate environmental documents for approval before beginning Stage III design plans	Review and approve documents for environmental clearance	Review and approve documents for environmental clearance
ROW clearance (see Chapter 10, Right-of-Way Clearances)	Obtain all information and prepare appropriate documentation to complete process	Review and issue clearance documents	Review and approve authorization to proceed
Utility and railroad clearance (see Chapter 11, Utility and Railroad Coordination)	Obtain all information and prepare appropriate documentation to complete process	Review and issue clearance documents	Review and approve relocations and grant authorization
Stages I through IV design submittals	Prepare and approve design plans up to 95% plans	Assist LPA's if requested	N/A
Stage V design submittal (final PS&Es)	Prepare and submit final PS&Es to ADOT for approval	Review and approve final PS&Es	N/A
Advertise and bid	Advertise the project for bid (following approval of PS&Es)	Notify LPA of approved PS&Es	Authorize funds for construction

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RESOURCES

American Association of State Highway and Transportation Officials (AASHTO) Website

<http://www.transportation.org/>

- ▶ A Policy on Geometric Design of Highways and Streets
- ▶ Guide Specifications for Highway Construction

ADOT 2009 Guide for Review of the AASHTO Controlling Design Criteria on Existing ADOT Roadways

<http://www.azdot.gov/docs/business/2009-aashto-guide.pdf?sfvrsn=0>

ADOT Construction Manual

<http://www.azdot.gov/business/engineering-and-construction/construction/ConstructionManual/construction-manual>

ADOT Design Exceptions and Design Variances Process Guide

<https://www.azdot.gov/docs/default-source/roadway-engineering-library/design-exception-and-design-variance-process-guide.pdf?sfvrsn=3>

ADOT Guidelines for Highways on Bureau of Land Management and U.S. Forest Service Lands 2008

<http://www.azdot.gov/business/engineering-and-construction/roadway-engineering/roadway-design-standards-and-guidelines/guidelines-for-highways-on-bureau-of-land-management-and-us-forest-service-lands>

ADOT Part B: Dictionary of Standardized Work Tasks

http://www.azdot.gov/docs/default-source/businesslibraries/dictionary_of_standard_work_tasks_fy_2014.pdf?sfvrsn=4

ADOT Project Administration Documents, including Appendix E - Documents Required for Design Phase Submittals

<http://www.azdot.gov/docs/business/appendix-e---documents-required-for-design-phase-submittals.pdf?sfvrsn=0>

ADOT Roadway Design Guidelines

<http://www.azdot.gov/docs/default-source/business/roadway-design-guidelines.pdf?sfvrsn=8>

ADOT Statewide Project Management website, including the Submittal Checklist under the PM Information tab
<http://www.azdot.gov/docs/business/submittal-checklist.pdf?sfvrsn=0>

FHWA Design Standards

<http://www.fhwa.dot.gov/programadmin/standards.cfm>

FHWA Frequently Asked Questions on Value Engineering

<http://www.fhwa.dot.gov/ve/vefaq.cfm>

FHWA Manual on Uniform Traffic Control Devices

<http://mutcd.fhwa.dot.gov/>

FHWA Mitigation Strategies for Design Exceptions (including FHWA's 13 controlling criteria)

<http://safety.fhwa.dot.gov/geometric/pubs/mitigationstrategies/>

FHWA Value Engineering Regulation and Policy

<http://www.fhwa.dot.gov/ve/vepolicy.cfm>

<http://www.fhwa.dot.gov/legsregs/directives/orders/13111a.htm>

Maricopa Association of Governments Standard Specifications

<http://www.azmag.gov/Communications/publications.asp>

ATTACHMENT 8-1 SAMPLE ADOT RECAPITULATION AGREEMENT

AGREEMENT ESTIMATE RECAPITULATION

0000 MA GLN SS50201C CM-GLN-0(023)A (Glendale Avenue, 99th Ave. to 107th Ave.)		REVISED: 04/02/03 ENGINEER: MURPHY					
DESCRIPTION	FWHA CODE	CONTRACTOR'S BID	FEDERAL PARTICIPATING	FEDERAL FUNDS 94.30%	LOCAL GOVERNMENT FUNDS 5.70%	LOCAL GOVERNMENT FUNDS 100.00%	LENGTH IN MI
ROADWAY	28	526,168.00	483,213.33	455,670.17	27,543.16	42,954.67	0.794
STRUCTURE - #9141	28	686,647.00	600,000.00	565,800.00	34,200.00	86,647.00	
TRAINEES	42	120.00	120.00	113.16	6.84		
SUBTOTAL		1,212,935.00	1,083,333.33	1,021,583.33	61,750.00	129,601.67	0.794
CONSTRUCTION ENGINEERING	17	169,810.90	151,666.67	143,021.67	8,645.00	18,144.23	
CONSULTANT SERVICES	17	12,129.35	10,833.33	10,215.83	617.50	1,296.02	
INCENTIVES							
AC SMOOTHNESS (\$7,500.00 / Lane-Mile)							
AC QUALITY LOT (\$1.50 / Ton)							
PCCP SMOOTHNESS (\$7,000.00 / Lane-Mile)							
PCCP QUALITY LOT (\$1.00 / Sq. Yd.)							
OTHER INCENTIVES							
FLAGGING SERVICES	21						
DPS OFFICERS	21						
RAILROAD / OTHER							
POST PROJECT REVIEWS		12,129.35	10,833.33	10,215.83	617.50	1,296.02	
CONSTRUCTION CONTINGENCIES		60,646.75	54,166.67	51,079.17	3,087.50	6,480.08	
PROJECT TOTAL:		1,467,651.35	1,310,833.33	1,236,115.83	74,717.50	156,818.02	0.794
					CITY =	231,535.52	

NOTE: Cap on Federal Cost (Incl. 5% Construction Contingency) = \$ 1,225,900

INPUTS:

AC SMOOTHNESS	lane-miles	\$7,500.00	per lane-mile
AC QUALITY LOT	tons @	\$1.50	per ton
PCCP SMOOTHNESS	lane-miles	\$7,000.00	per lane-mile
PCCP QUALITY LOT	square yard	\$1.00	per sq. yd.
DPS-TRAFFIC CONTROL	hours @	\$35.00	per hour

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CHAPTER 9

Environmental Clearances

Introduction

This chapter provides guidance for the environmental clearance process of federally funded transportation projects, including compliance with NEPA, FHWA regulations and ADOT policies, and other related regulations and laws. Through studies and documentation, this process identifies the potential environmental impacts of federally funded projects and the mitigation measures that may be required to address these impacts. The environmental regulations and requirements discussed in this chapter apply to LPA projects that have a federal nexus, such as the use of federal-aid funds or actions on federal or tribal lands. If federal-aid funds are used for any part of an LPA project, whether or not federal-aid funds are used for environmental documentation activities, the LPA must follow the procedures included in this chapter.

Federally funded projects must comply with various federal environmental regulations including but not limited to:

- ▶ NEPA
- ▶ Council on Environmental Quality (CEQ) Regulations for Implementing NEPA
- ▶ FHWA/FTA Environmental Impact and Related Procedures
- ▶ Clean Water Act (CWA)
- ▶ Clean Air Act (CAA)
- ▶ Endangered Species Act
- ▶ Migratory Bird Treaty Act
- ▶ Section 106 of the National Historic Preservation Act (NHPA)
- ▶ Section 4(f) of the U.S. Department of Transportation Act
- ▶ Procedures for Abatement of Highway Traffic Noise and Construction Noise
- ▶ Resource Conservation and Recovery Act
- ▶ Title VI of the 1964 Civil Rights Act

Coordination between federal agencies applicable to a project's environmental clearance process will need to occur early in the project development process in order to define each agency's NEPA responsibilities. Thus, it is recommended that the LPA identify and notify known and potential federal agencies during the scoping phase of

the project development process. Federal agencies other than FHWA could include FAA, FTA, the U.S. Environmental Protection Agency (EPA), BLM, BIA, the U.S. Bureau of Reclamation, the Corps, USFWS, and USFS.

Roles and Responsibilities

LPAs are responsible for obtaining all information and data needed to prepare reports in accordance with ADOT processes for compliance with NEPA requirements and other environmental regulations. ADOT EPG oversees the environmental clearance process and is responsible for ensuring that the process is applied correctly to LPA projects and for reviewing environmental documents to ensure that they comply with environmental requirements.

LPAs should become familiar with the information and documentation requirements that are necessary to complete the environmental clearance process. Environmental issues should be considered as early as possible in the project development process in order to allow sufficient time to obtain the necessary environmental clearances. LPAs should also be aware of the often lengthy timelines associated with the environmental clearance process, ranging from 3 months to more than 3 years.



The environmental clearance process can take as little as 3 months or may take more than 3 years depending on the complexity of the project. The typical environmental clearance process takes 10 to 12 months from initial submittal to environmental clearance, but the time needed to achieve environmental clearance varies from project to project, depending on the potential for environmental impacts and the level of documentation needed.

EPG maintains a website that provides current guidance on ADOT's various environmental clearance requirements and processes. This website is an excellent resource for obtaining current NEPA and technical-resource-specific guidelines, document formats, and commonly used mitigation measures applicable to LPA projects, as well as all checklists and forms referenced in this chapter. The Guidance and Documents index on the EPG website provides a comprehensive list of links to both federal and state agency guidelines and useful tools applicable to environmental clearances (see the Resources list at the end of this chapter for a link to the index).

Before the environmental clearance process begins, the EPG NEPA planner assigned to the project will notify the ADOT project manager of information needs as well as the level of environmental clearance documentation that is expected. At the end of the clearance process, EPG or FHWA may issue an environmental clearance. The type of environmental clearance issued will vary with the type of project and level of environmental impacts. The environmental requirements are the same for all LPA projects, whether they are ADOT administered, self-administered, or administered by a certified LPA.

Because of the complexity of the environmental clearance process, LPAs should consider using consultants who specialize in environmental planning to secure required clearances. LPAs that have been granted approval in advance by their ADOT project manager to use an environmental consultant may opt to have ADOT select a

consultant from ADOT’s approved on-call list or may use their own consultant selection process if approved by ADOT ECS to do so. The LPA’s consultant selection process must be approved by ECS as outlined in Chapter 18, Contracting, Consultant Selection, and Procurement. Following approval of the consultant selection process, the LPA can advertise, select a consultant, and negotiate a contract. A copy of the executed contract should be submitted to the ADOT project manager. ADOT will then initiate an IGA with the LPA for the reimbursement of federal-aid funds. Once the funds are authorized and the IGA has been executed, ADOT will issue a Notice to Proceed to the LPA. Federal-aid funds cannot be used for any work that occurs before the authorization to proceed. Table 9-1 outlines the roles and responsibilities of LPAs, ADOT, and FHWA during the environmental clearance process.

Table 9-1 Roles and Responsibilities for Environmental Clearances

Task	LPA	ADOT	FHWA	Other
Study area	Determine area of potential effect	Define area of potential effect	Review area of potential effect	N/A
Project scoping	Coordinate with MPO/COG to define project scope	Approve environmental scoping	Participate as necessary	N/A
Level of NEPA documentation	N/A	Review project information to determine documentation level required; coordinate with FHWA	Review project information and approve documentation level required; inform ADOT	N/A
CE, if required	Prepare CE	Review and approve programmatic CEs; review and forward nonprogrammatic CEs to FHWA for approval	Review and approve nonprogrammatic CEs	N/A
Draft EA, if required	Prepare draft EA, including results from technical resource studies; facilitate circulation of draft EA for public and agency review and comment	Review and approve draft EA, then forward to FHWA for approval	Review and approve draft EA, or determine that an EIS is needed; if approved, coordinate with LPA regarding the circulation of the draft EA for public and agency review and comment	Public entities and applicable agencies: review and comment on draft EA
Final EA, if required	Prepare final EA, incorporating comments from public review period	Review and approve final EA, then forward to FHWA for approval	Review and approve final EA by making a Finding of No Significant Impact determination, or determine that an EIS is needed	N/A
Draft EIS, if required	Prepare draft EIS, including results from technical resource studies; facilitate circulation of draft EIS for public and agency review and comment	Review and approve draft EIS, then forward to FHWA for approval	Review and approve draft EIS; coordinate with LPA regarding the circulation of the draft EIS for public and agency review and comment	Public entities and applicable agencies: review and comment on draft EIS

Task	LPA	ADOT	FHWA	Other
Final EIS, if required	Prepare final EIS, incorporating comments from public and agency review	Review and approve final EIS, then forward to FHWA for approval	Review and approve final EIS by issuing a Record of Decision	N/A
Biological resource report	Prepare appropriate biological report	Review and approve findings of biological report; forward "may affect" findings to FHWA	Review and approve "may affect" findings; forward "may affect" findings to USFWS for Section 7 consultation	USFWS: review for concurrence with "may affect" findings; coordinate regarding mitigation measures
Cultural resource report	Prepare appropriate cultural survey report; coordinate with the ADOT Historic Preservation Team	Review and approve cultural survey report; determine project's effect on historic properties through coordination with the ADOT Historic Preservation Team, who will draft the consultation letters	Review cultural survey report and consultation letter; forward report and consultation letter to SHPO or THPO, and applicable consulting agencies and tribes, as appropriate	SHPO or THPO and applicable consulting agencies and tribes: review report and consultation letter for concurrence on adequacy of report, eligibility, and effect determinations
Air	Conduct air quality analysis	Review and approve analysis during NEPA process; coordinate with FHWA as necessary	Review analysis during NEPA process; provide approvals as necessary	N/A
Noise	Conduct traffic noise analysis	Review and approve analysis during NEPA process; coordinate with FHWA as necessary	Review analysis during NEPA process; provide approvals as necessary	N/A
Sections 4(f) and 6(f)	Complete and document all research/ investigation information and determinations	Make preliminary determination regarding use of Section 4(f) or 6(f) resources	Make determination regarding use of Section 4(f) or 6(f) resources	N/A
Water resources	Assess the presence or absence of water resources	Review analysis during NEPA process; coordinate with FHWA as necessary	Review analysis during NEPA process; provide approvals as necessary	N/A
Hazardous materials	Prepare PISA; coordinate with ADOT to determine need for asbestos or lead-based-paint testing; prepare Phase I, II, or III ESA, if required	Review and approve PISA and/or Phase I, II, or III ESA and mitigation measures, as applicable; coordinate with FHWA as necessary	Review analysis during NEPA process; provide approvals as necessary	N/A
Socioeconomics	Analyze and document level of socioeconomic impacts	Review analysis during NEPA process; coordinate with FHWA as necessary	Review analysis during NEPA process; provide approvals as necessary	N/A
Land use	Assess and document land-use impacts	Review analysis during NEPA process; coordinate with FHWA as necessary	Review analysis during NEPA process; provide approvals as necessary	N/A
Environmental justice and Title VI	Analyze and document environmental justice	Review analysis during NEPA process; coordinate with FHWA as necessary	Review analysis during NEPA process; provide approvals as necessary	N/A

Task	LPA	ADOT	FHWA	Other
Visual resources	Analyze and document visual resources, as appropriate	Review analysis during NEPA process; coordinate with USFS and BLM to determine appropriate level of analysis	Review analysis during NEPA process	USFS and BLM: ensure compliance with resource management plans
Public involvement	Coordinate with ADOT to conduct appropriate level of public involvement and notification; document as necessary; facilitate circulation of draft EA or draft EIS for public and agency review and comment	Determine appropriate level of public involvement based on project details (e.g., informal conversations, notification letters, public meetings)	Coordinate with LPA regarding the circulation of the draft EA or draft EIS for public and agency review and comment; review public involvement materials	Public entities and applicable agencies: review and comment on the project, including draft EA or draft EIS
Clean Water Act and Rivers and Harbors Act	Prepare appropriate permitting application documents; submit to Corps, ADEQ, and EPA, as applicable	N/A	N/A	Corps and ADEQ (or EPA, if necessary): review and approve permit and certification applications
Floodplains	Assess and document impacts on base floodplains and regulatory floodways; procure necessary federal and county floodplain permits	Review analysis during NEPA process; coordinate with FHWA as necessary	Review analysis during NEPA process; provide approvals as necessary	Coconino, Cochise, Gila, Maricopa, Mohave, Pima, Santa Cruz, Yavapai, and Yuma Counties: ensure compliance with county flood-control programs
Materials source clearances, if required	Complete appropriate materials source clearance documentation and submit to ADOT	Review and approve materials source clearance documentation	N/A	N/A
Geotechnical investigation clearance	Complete the Geotech Compliance Form	Review form and issue geotechnical clearance; coordinate with FHWA as necessary	N/A	N/A
Mitigation measures	Incorporate all appropriate mitigation measures into CE, EA, or EIS for any impacts discovered during NEPA process <i>Note:</i> For Certification Acceptance and self-administered projects, LPA must ensure implementation of mitigation measures	Review and approve proposed mitigation measures during NEPA process <i>Note:</i> For ADOT-administered projects, ADOT negotiates with the applicable agencies to determine appropriate mitigation measures and ensures implementation of mitigation measures during construction	Review and approve proposed mitigation measures during NEPA process	N/A

Table Key: ADEQ = Arizona Department of Environmental Quality; ESA = environmental site assessment; PISA = preliminary initial site assessment; SHPO = State Historic Preservation Office; THPO = Tribal Historic Preservation Office.

ADOT-Administered Projects

The LPA is responsible for preparing the environmental documentation and meeting NEPA and other federal, state, and local environmental requirements for all LPA ADOT-administered projects. ADOT EPG is responsible for reviewing the documentation and analysis completed and for determining the level of NEPA documentation required for receipt of environmental clearance. LPAs are expected to participate in the environmental process when ADOT administers the project on behalf of the LPA. Participation could include attendance at regular project meetings and field reviews, participation in project decision making, and coordination with the ADOT project manager. MPOs and COGs do not have a significant role or responsibilities during the environmental process for LPA projects.

Certification Acceptance and Self-Administered Projects

Certified and self-administering LPAs are responsible for preparing the environmental documentation and meeting all NEPA and other federal, state, and local environmental requirements for their projects in accordance with the same processes and procedures used for ADOT-administered projects.

Funding (Authorization)

To ensure LPAs are fully reimbursed for all costs incurred, LPAs should begin design or environmental investigations only after receiving federal-aid authorization. The design process for federally funded projects should not proceed beyond Stage III design (60% plans) without final NEPA clearance. Project work proceeding beyond Stage III design before obtaining NEPA clearance, without prior approval by ADOT and FHWA, is considered “at risk” and potentially may not be reimbursed.

The environmental review process often identifies potential effects of a project that should be avoided or minimized to avoid environmental impacts on resources. Early identification of these impacts can help LPAs avoid expenditures of money and time in the long run. The use of allocated project funding to analyze potential environmental concerns or clearance requirements during the planning/programming phase may yield benefits. The early identification of environmental concerns or clearance requirements, such as those necessary to document or to mitigate impacts on existing resources (e.g., archeological sites), will provide useful information regarding project scope and schedule that may not otherwise be discovered until the preliminary engineering phase.

If a project receives federal-aid funds, FHWA is required to complete an environmental review. The environmental clearance process must be completed to fulfill the LPA’s funding requirement.



Any work conducted before the federal authorization effective date will not be eligible for reimbursement of federal-aid funds.



To ensure your project is fully reimbursed for all eligible incurred costs:

- Complete all required paperwork and submittals by specified deadlines
- Do not begin environmental clearance work before receiving required federal-aid funding authorization
- Do not proceed beyond Stage III (60% design plans) before obtaining NEPA clearance
- Include mitigation measures in final PS&Es and bid documents, in accordance with 23 CFR 635
- Be aware of and comply with other requirements, such as the requirement to follow consultant selection procedures or to complete projects within required time frames
- Understand and follow the invoicing and closeout timelines for self-administered and Certification Acceptance projects

It is important that LPAs understand the decisions made during the environmental clearance process, since LPAs are responsible for project costs beyond federal-aid authorization amounts.

National Environmental Policy Act Process

Overview

Transportation projects vary in type, size, and complexity and have the potential to affect the environment in varying ways and degrees. These environmental impacts can be adverse or beneficial, can be short or long term, and can range from minor to significant. Beginning in the 1960s, Congress recognized “man’s profound activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, high-density urbanization, industrial expansion, resource exploitation, and new and expanding technological advances” and further recognized “the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man” (42 USC 4331[a]). It declared that the federal government, in cooperation with state and local governments and other concerned public and private organizations, “use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans” (42 USC 4331[a]). A number of laws were passed that support these ideas, most relevant to a federally funded LPA project being NEPA.

NEPA (42 USC 4321 et seq.) was signed into law on January 1, 1970. The act establishes national environmental policy and goals for the protection, maintenance, and enhancement of the environment. For proposed actions with a federal nexus, NEPA provides a mechanism for meeting many environmental reviews and approvals. With the enacting of NEPA, CEQ was established within the Executive Office of the President of the United States to oversee NEPA implementation. As stipulated by CEQ, each federal agency is granted authority to implement

NEPA procedures that adapt the framework established by the CEQ regulations and address agency-specific missions and decision-making authority.

LPAs are required to follow the NEPA process to ensure that projects are properly evaluated, the necessary environmental commitments are identified, and the appropriate documentation necessary to obtain environmental clearance is completed. Figure 9-1 shows an overview of the NEPA process. The ADOT project manager provides valuable assistance in this process by coordinating with ADOT EPG. Before undertaking a proposed action, the LPA, with input from EPG and FHWA, must identify whether or not a proposed action or alternative has the potential to result in significant environmental impacts.



Development/design cannot extend beyond Stage III (60% design plans), nor can ROW negotiations begin, until environmental clearance is obtained.

FHWA environmental clearance received during the NEPA process should not be considered a guaranteed approval of other federal, state, or local requirements. The LPA may use the analysis completed during the NEPA process to facilitate the completion of project-specific environmental reports; however, the LPA should coordinate with the appropriate agencies to provide the information necessary to obtain the applicable clearances, concurrences, and approvals.



FHWA environmental clearance received during the NEPA process should not be considered a guaranteed approval of other federal, state, or local requirements. In addition, approval of the environmental clearance documents does not commit FHWA to approve any future federal-aid request to fund the project.

Defining the Study Area

Before initiating the NEPA process, an LPA, in coordination with ADOT EPG, should define the project’s area of potential effect (APE). A project study area should expand beyond the actual footprint of a project and include anticipated detours, equipment staging areas, new ROW, and easements. A clearly defined APE based on the purpose and need that incorporates all aspects of the project can minimize project delays and additional costs. An APE is typically determined during the preliminary design phase through the completion of a DCR, design scoping document, or PA; the APE should be large enough in order to provide some flexibility through the design phase to account for alternatives that may be analyzed. Technical assessment documents developed to support an environmental clearance document will ultimately incorporate a more clearly defined project area that is relevant to the actual project footprint and specific to the resource being analyzed.

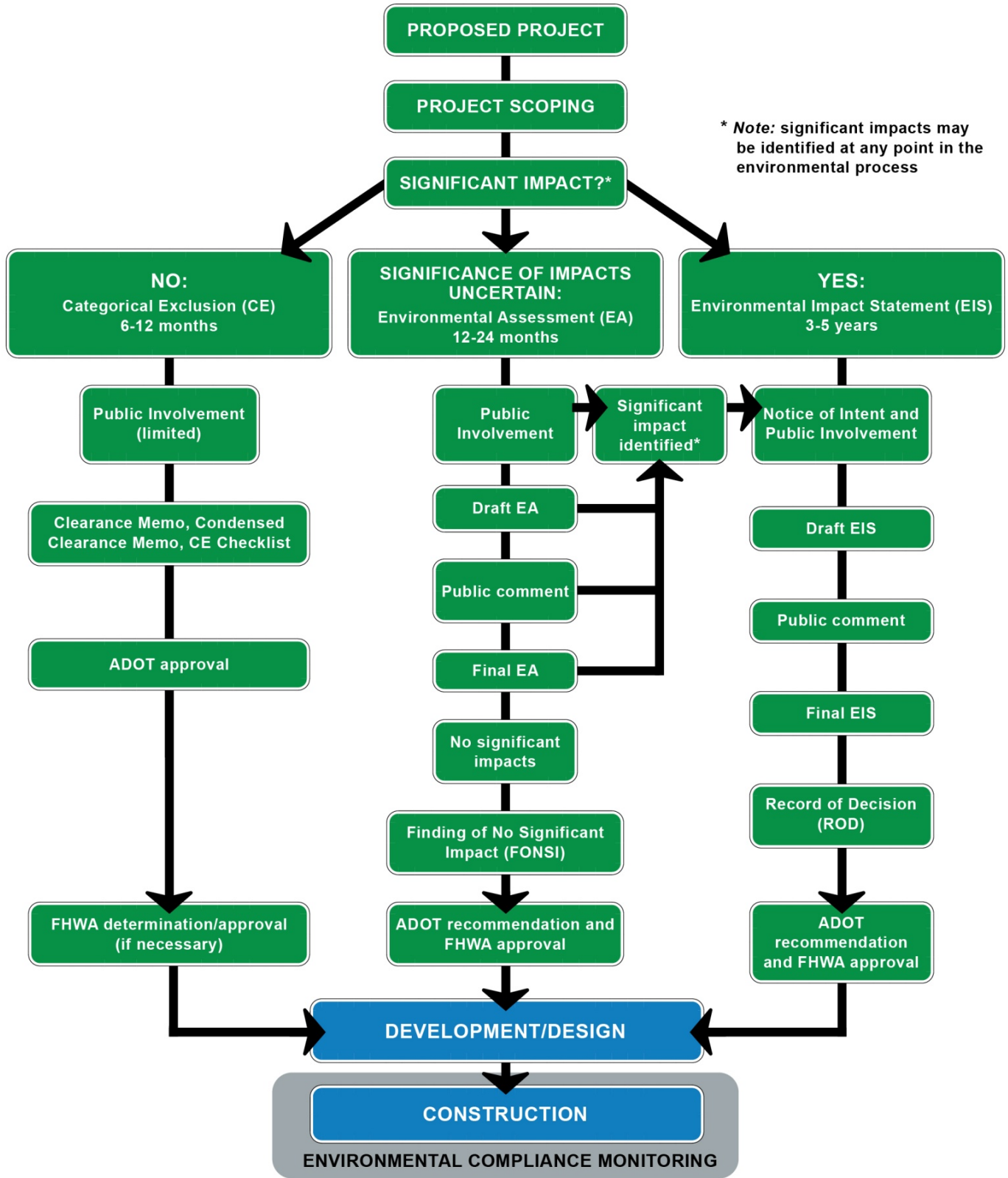


Figure 9-1 National Environmental Policy Act Process



An LPA may conduct *only* the proposed project-related activities within an APE that are outlined in the environmental clearance documents. Activities that are not outlined in the clearance documents, or any activities that take place outside the APE, are not authorized.

Scoping

Scoping during the planning/programming phase should define a project’s purpose and need, budget, schedule, scale, and any anticipated issues and opportunities. During the planning/programming phase, the scope of the project should be clearly defined and designed to achieve the following objectives:

- Determine which aspects of the proposed action have potential for social, economic, or environmental impacts
- Identify alternatives (including a no-build alternative) and measures that might mitigate adverse environmental impacts
- Identify other environmental review and consultation requirements that should be performed concurrently with environmental assessments or evaluations

LPAs should accomplish these objectives through early coordination with their local COG or MPO and later refine them during the NEPA environmental scoping and documentation process.



The term *scoping* is applied differently throughout the project development process:

- During the planning/programming phase, a project is “scoped” to identify project elements; complexity; and expected items of work, such as utility relocation, new curb and gutter, traffic control, lighting, and paving. The importance of scoping during planning/programming is to produce an accurate and complete project description that leads to a realistic estimated cost. If a project is inadequately scoped during this phase, unanticipated costs will likely be incurred and borne solely by the LPA.
- During the environmental clearance process, project scoping is expanded to weigh project effects against known or identified environmental parameters, including the request for public and private comments from those who will be affected by or have an interest in the project.

Levels of NEPA Documentation

NEPA addresses three levels of environmental impact evaluation and documentation, depending on the type of action and severity of potential environmental impacts. These include CEs, EAs, and EISs. The criteria for each level of NEPA documentation is outlined in 23 CFR 771.115 and summarized as follows:

- ▶ **CEs** are completed for projects that cause lesser or mitigated social, economic, or environmental impacts.
- ▶ **EAs** are completed for larger-scale projects that do not meet the requirements for a CE, projects that can have environmental impacts reduced through mitigation, and projects in which the significance of the environmental impact is not clearly established.
- ▶ **EISs** are completed for actions that significantly impact the quality of the human and natural environment.

Technical resource studies are conducted to identify and address potential environmental impacts that a proposed action may have on the natural or physical environment. Technical resource studies are discussed in greater detail in the Technical Resource Studies section of this chapter. For all levels of NEPA documentation, mitigation measures must be properly documented and included in the project's PS&Es and bid documents before FHWA will authorize federal-aid funds for construction. The online EPG Guidance and Documents index, referenced in the Resources list at the end of this chapter, provides comprehensive guidance that can help LPAs to anticipate the appropriate level of NEPA documentation and to prepare the required documentation. For all projects, FHWA will make the final determination regarding the appropriate level of NEPA documentation.



During the environmental clearance process, it may be discovered that new, potentially significant impacts may occur or it may be concluded that previously identified significant impacts will not occur. In the case of such discoveries or conclusions, FHWA may determine that the level of required NEPA documentation must be adjusted.

Categorical Exclusions

Projects that are federally funded or necessitate federal approval and that do not individually or cumulatively have a significant social, economic, or environmental effect, as defined in 40 CFR 1508.4, can comply with NEPA regulations through a CE. A majority of federally funded projects will meet the qualifications for a CE, and this level of environmental study should be anticipated by LPAs. For projects that meet the qualifications for a CE, neither an EA nor an EIS is required.

As stated in 23 CFR 771.117(b), any project that would normally meet the qualifications for a CE but that may result in significant impacts due to the presence of “unusual circumstances” may require an EA or EIS. For these projects, additional coordination with FHWA is required to conduct the appropriate environmental studies to determine whether the appropriate level of documentation is a CE. The CE documentation must certify that unusual circumstances do not exist for the project. Examples of unusual circumstances include:

- ▶ Significant environmental impacts (e.g., impacts on biological, cultural, water resources)
- ▶ Substantial controversy on environmental issues or impacts
- ▶ Use of property protected by Section 4(f) of the U.S. Department of Transportation Act
- ▶ Use of property protected by Section 106 of the NHPA
- ▶ Inconsistencies with any federal, state, or local law, requirement, or administrative determination relating to the environmental aspects of the action



CEs are categorized as either programmatic or nonprogrammatic and fall into one of two groups depending on the extent of ground disturbance a project will cause. These categories are used by ADOT EPG to determine the process that must be followed and the nature of the documentation that is required to complete the CE. The appropriate CE category for a project, as well as the level of documentation needed and which environmental studies are required, will be determined by FHWA through coordination with EPG.

Programmatic and Nonprogrammatic Categorical Exclusions

On June 26, 2008, FHWA and ADOT signed an *Arizona Programmatic Categorical Exclusion Approval* agreement, which outlines how approval authority for CEs is delegated between ADOT and FHWA. This agreement classifies CEs into two main categories: programmatic and nonprogrammatic. Programmatic actions can generally be reviewed and approved by ADOT without further approval by FHWA. Nonprogrammatic actions must be reviewed and approved by FHWA following ADOT review and approval, and may require some level of involvement by FHWA as the project is reviewed. Projects are programmatic if they meet the qualifications for a CE, and none of the conditions for nonprogrammatic status listed in the June 2008 *Arizona Programmatic Categorical Exclusion Approval* agreement apply. Examples of nonprogrammatic actions include but are not limited to actions that involve tribal land, actions that require new ROW on federal land, or actions that involve “use” of properties protected by Section 4(f) of the U.S. Department of Transportation Act of 1966.

Group 1 and Group 2 Categorical Exclusions

Project types and the associated level of documentation required are detailed in two agreements between ADOT and FHWA: the *Categorical Exclusion Guidelines* (June 2006, or the latest version if updated since 2006) and the *2012 Update to the 2010 Operating Agreement* (or the latest version if updated since 2012). For cases in which the *Categorical Exclusion Guidelines* and the *Operating Agreement* conflict, the latest version of the *Operating Agreement* should be used. Projects are qualified as either Group 1 CE projects or Group 2 CE projects according to the definitions and conditions found in the two agreements. ADOT EPG designates projects as either Group 1 or Group 2 according to the extent of ground disturbance.

Group 1 CE projects do not involve ground disturbance and are programmatic. Required documentation for Group 1 CEs consists of a clearance memorandum (clearance memo), which is prepared by the LPA or EPG and approved by EPG. FHWA will be notified regarding the clearance memo, but FHWA approval is not required for Group 1 CEs. The clearance memo describes the project limits and scope, summarizes the potential effects of the action, and details all required mitigation measures (if mitigation is required). If the project does not cause ground disturbance but is nonprogrammatic, according to the guidelines in the 2008 *Arizona Programmatic Categorical Exclusion Approval* agreement, then the project requires a Group 2 CE.



When preparing the clearance memo for Group 1 or Group 2 CEs, LPAs should use the clearance memo template available in the Categorical Exclusions section of the online EPG Guidance and Documents index.

Group 2 CE projects involve ground disturbance and may be either programmatic or nonprogrammatic. Documentation for Group 2 CE projects may consist of either a condensed clearance memo or a CE checklist. Supporting technical resource studies that evaluate impacts on environmental resources are also required.

FHWA and ADOT developed the condensed clearance memo to streamline the environmental clearance process for projects that meet Group 2 CE guidelines but that involve only minor ground disturbance. A condensed clearance memo combines the clearance memo with a brief project evaluation of potential effects and mitigation with supporting analyses, as needed. If EPG has determined that a condensed clearance memo is sufficient for environmental clearance, it will provide the LPA with the appropriate condensed clearance memo format.

Programmatic Group 2 CEs that involve more than minor ground disturbance and most nonprogrammatic Group 2 CEs require a CE checklist to document the project review. The CE checklist requires a more intensive evaluation of project impacts than the condensed clearance memo. The CE checklist template and the *Checklist Completion Guidelines* are available in the Categorical Exclusions section of the online EPG Guidance and Documents index. Documentation for programmatic Group 2 CEs is prepared by LPAs and reviewed and approved by ADOT. Nonprogrammatic Group 2 CE documentation is prepared by LPAs for ADOT review and requires FHWA approval. In certain cases, a condensed clearance memo may be used in place of a CE checklist for nonprogrammatic Group 2 CEs; however, the use of a condensed clearance memo will be determined by EPG and FHWA.



Before FHWA will approve the CE document, the project must be fully funded in a fiscally constrained, air-conforming plan and program. For more information on air conformance policy and guidance, see the FHWA Transportation Conformity websites referenced in the Resources list at the end of this chapter.

As previously discussed, documentation required for programmatic and nonprogrammatic CEs depends on project details, including the level of ground disturbance. Table 9-2 summarizes the level of CE documentation required for typical LPA projects.

Table 9-2 Level of CE Documentation Required by Project Type

CE Group	Extent of Ground Disturbance	Programmatic ^a	Nonprogrammatic ^b
Group 1	No ground disturbance	Clearance memo only	N/A
Group 2	Minor ground disturbance	Condensed clearance memo	CE checklist/condensed clearance memo
Group 2	More-than-minor ground disturbance	CE checklist	CE checklist

Table General Note: The level of documentation presented in the table is based on current ADOT EPG guidance and is for typical projects only. The documentation required may vary by project and will be determined by EPG.

Table Notes: ^a Only ADOT approval is needed for programmatic CEs. ^b FHWA approval is needed for nonprogrammatic CEs.

Environmental Assessments

An EA should be prepared for a proposed action that does not meet the criteria for a CE and that does not clearly require the preparation of an EIS. An EA may satisfy NEPA compliance or may only assist in determining whether further analysis is needed in the form of an EIS. EAs summarize the environmental scoping process and analyze all reasonable project alternatives, including a no-build alternative. They also include the results of agency coordination outlined in 23 CFR 771.111(d), which requires that agencies with jurisdiction by law or special expertise be requested to become cooperating or partnering agencies. ADOT, in cooperation with FHWA, will determine whether federal, state, or tribal agencies should be invited to be cooperating agencies, as described under 40 CFR 1501.6.



For projects that do not meet the criteria for a CE, the LPA should consult with the ADOT project manager and EPG NEPA planner to develop an understanding of the project’s level of impact and the corresponding environmental documentation needed.

Draft EAs, including the results of technical resource surveys, must be submitted to the ADOT project manager. ADOT EPG will review and approve the draft EA before sending it to FHWA Arizona Division for review. The draft EA will then be sent to cooperating agencies for review and then back to FHWA for final review and approval for public review. The draft EA must be approved by ADOT and FHWA before it can be circulated for a 30-day public comment period and scheduled for a public hearing.

Following the public comment period, the LPA will make appropriate corrections based on any substantive comments and then will submit the final EA to ADOT. ADOT will submit final EA documentation to FHWA for review. The final EA should document compliance with all applicable federal, state, and local environmental laws, executive orders, and regulations or provide reasonable assurance that those requirements can be met.

Finding of No Significant Impact

FHWA will make a final determination of environmental impact following review of the final EA after coordination with cooperating agencies. If the EA concludes that a project will not result in significant impacts, and FHWA concurs with this finding, then FHWA will prepare a separate document called a Finding of No Significant Impact (FONSI). FHWA will provide a copy of the signed FONSI to both ADOT and the LPA. The LPA will then send the

FONSI to affected federal, state, and local agencies. If FHWA reviews the EA and determines that the project is likely to cause significant impacts on the environment, the preparation of an EIS document will be required.



Before FHWA will sign a FONSI, the preferred alternative for the project must be fully funded in a fiscally constrained, air-conforming plan and program. For more information on air conformance policy and guidance, see the FHWA Transportation Conformity websites referenced in the Resources list at the end of this chapter.



If, at any point in the EA process, it is determined that the action is likely to have a significant impact on the environment, the preparation of an EIS document will be required.

Environmental Impact Statements

ADOT and FHWA will determine whether a project is likely to cause significant impacts on the environment, triggering the need for the LPA to prepare an EIS. When ADOT and FHWA decide that an EIS is appropriate, FHWA will publish a Notice of Intent (NOI) in the *Federal Register*, initiating the EIS process.

If an EIS is required, the LPA will prepare a draft EIS, including technical resource studies, with appropriate guidance and participation by ADOT and FHWA. The draft EIS will evaluate all reasonable alternatives to the action, including the no-build alternative, and discuss why other alternatives that may have been considered were eliminated from detailed study. The draft EIS must be submitted to ADOT for review, who will forward it to FHWA Arizona Division. Following the initial review by FHWA, the draft EIS will be sent to cooperating agencies for review and returned back to FHWA for final review and approval for public review. FHWA will review the draft EIS for compliance with NEPA requirements, including legal sufficiency. Once approved by FHWA, the draft EIS will be circulated for public and agency review and comment by publishing it on the *Federal Register*.

After circulation of the draft EIS, the public and agency comments will be considered, which may require the LPA to conduct additional studies. The LPA will revise the information in the draft EIS accordingly and prepare a final EIS document. The final EIS will evaluate all reasonable alternatives considered and identify the recommended alternative. Mitigation measures presented as commitments in the final EIS will be incorporated into the project. The LPA must provide a copy of the final EIS to EPA so that it can be published in the *Federal Register* and circulated for public and agency review and comment.

FHWA will review the final EIS and make a determination on the preferred alternative through the issuance of a Record of Decision (ROD); however, approval of the final EIS document does not commit FHWA to approve any future federal-aid request to fund the preferred alternative. FHWA will prepare the ROD, which will include the following: the basis for the decision, as specified in 40 CFR 1505.2; a summary of any mitigation measures that

will be incorporated in the project; documentation of any required Section 4(f) approval; and any comments received on the final EIS. Before FHWA will sign the ROD, the project described as the preferred alternative must be fully funded in a fiscally constrained, air-conforming plan and program (i.e., funding must be dedicated to the completion of the project). For more information on air conformance policy and guidance, see the FHWA Transportation Conformity websites referenced in the Resources list at the end of this chapter.

Supplemental Environmental Impact Statements

A draft or final EIS may be supplemented at any time before the publication of a ROD. It will be supplemented whenever FHWA determines *one* of the following:

- ▶ Changes to the proposed action would result in relevant environmental impacts that were not evaluated in the draft or final EIS.
- ▶ New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in the draft or final EIS.

Reevaluations of Environmental Documents

A reevaluation is an analysis of changes in a proposed project action, affected environment, anticipated impacts, and mitigation measures at specific times in the project development process. The purpose of a reevaluation is to determine whether an approved environmental document remains valid and to determine whether changes require preparation of a supplemental or new environmental document. Reevaluation of a CE, EA, or EIS is required if *any one* of the following conditions is identified:

- ▶ There are changes in the proposed action that are relevant to the environmental concerns.
- ▶ There are new circumstances that are relevant to the proposed action or its impacts.
- ▶ There is new information that is relevant to the proposed action or its impacts.
- ▶ A significant amount of time has passed since the original clearance or decision document (varies by document type and by project, but may be as little as 6 months).
- ▶ A federal law that is relevant to the project is updated or newly implemented.

Scope changes could result in unanticipated monetary and schedule requirements and can occur at any point during the project. If changes to project scope or funding occur, the LPA should contact ADOT EPG as soon as possible to determine whether reevaluation is necessary (see Appendix A for contact information).

Public Involvement

Public involvement, a component of environmental scoping, is a critical activity during the NEPA process. The goal of public involvement is to promote an exchange of information between the public and the project team. The level of public involvement will depend on the nature and complexity of the project. For projects that can be cleared through CEs, public involvement is usually limited; for those requiring clearance through EAs and EISs, public involvement is more in depth. Public involvement activities may be as simple as informal conversations with the affected public, notification letters to property owners, or announcements in local newspapers. Involvement

activities may also include direct mailings, posters, door hangers, and public service ads. More complex projects may require multiple public involvement meetings, hearings, or both.

ADOT provides specific direction for coordinating the initial public involvement scoping effort to determine the level of public involvement. Refer to the *Guidelines for Scoping Environmental Determination and Categorical Exclusion National Environmental Policy Act Documents*, which is available in the Local Government Projects section of the online EPG Guidance and Documents index. These guidelines are intended to promote consistent, positive initial contact with agencies and the public. All public involvement should be tailored to meet the needs of each individual project. Care should be taken to ensure that information presented is consistent and applicable to the project. Good documentation of public involvement activities can be beneficial to an LPA if the project is challenged.

Technical Resource Studies

Technical resource studies are the evaluative tools commonly used as the basis of decisions rendered in environmental documents. These resources are usually identified as being sensitive to project impacts and include natural resources, heritage resources (historic and cultural), social resources, recreational resources, and the like. Technical studies generally have established measurable criteria for evaluating potential project impacts. The methodologies, conclusions, and mitigation measures are coordinated with oversight agencies and regulatory bodies—such as the USFWS, which has jurisdiction over endangered species; EPA, which sets and enforces air quality regulations; and the Corps, which enforces CWA requirements. Environmental documents usually include summaries of the technical analyses and reference the technical study. Discussions of typical technical resource studies are presented in the following sections.



Changes in project disturbance or area may require the reevaluation of an environmental clearance (i.e., CE, EA, or EIS). Existing technical resource studies may need to be revised or new technical resource studies may be required if changes in project scope occur or if changes in the environment, guidance, or regulations occur.

Biological Resources

Figure 9-2 shows an overview of the biological resource analysis and approval process.

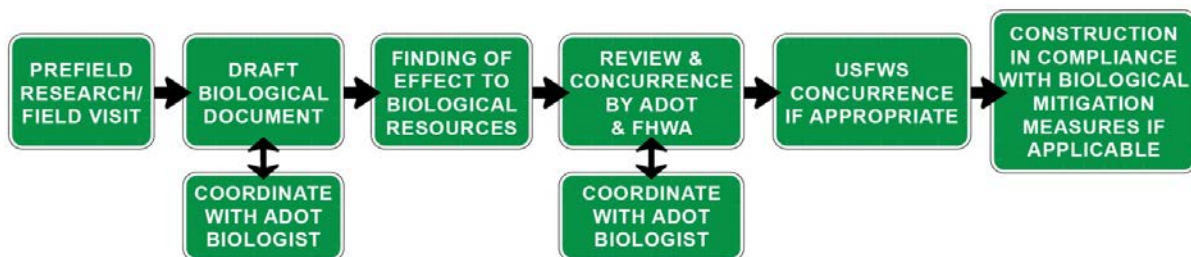


Figure 9-2 Biological Resource Process

During the analysis phase, the LPA must assess a project's potential impacts on natural resources, including threatened and endangered species, state-protected species, and migratory birds. Coordination with the ADOT biologist will help the LPA determine what level of biological resource analysis is required. There are three levels of documentation: a biological review, a biological evaluation, and an Urban Biological Evaluation Form. The ADOT EPG website offers detailed instructions on formats and guidance for each report type. The biological resource report must be completed by a qualified biologist (as determined by ADOT); qualification standards are provided in the Biological Resources section of the online EPG Guidance and Documents index.

Projects that partially occur on lands managed by a federal agency, such as USFS or BLM, or on lands under the jurisdiction of a tribal government may need to address impacts on additional sensitive species and to complete further coordination. The LPA should coordinate with the applicable agency's biologist to determine whether additional studies or document reviews will be necessary.

The LPA is responsible for conducting the analysis and completing the appropriate reporting format. Once the biological report is completed, the findings are approved by the ADOT biologist; "may affect" findings are also approved by FHWA. Consultation with USFWS must occur for "may affect" findings that have been approved by FHWA. FHWA serves as the lead federal agency for Section 7 Endangered Species Act consultation with USFWS, although the LPA will be required to supply any additional information that may be needed to complete consultation.

Cultural Resources

The LPA must assess a project's potential impacts on cultural resources. Cultural resources refer to prehistoric and historic archaeological sites, buildings, structures, objects, and districts that are generally 50 years or older. Cultural resources that are determined eligible for listing in the National Register of Historic Places are termed "historic properties." ADOT EPG's Historic Preservation Team (HPT) is responsible for cultural-resource-related agency and tribal coordination and documentation reviews on LPA projects. For federally funded projects, FHWA serves as the lead agency for consultation and FHWA review and approval is also required. It is the responsibility of the LPA to coordinate with HPT to determine the necessary investigation and reporting requirements on a project-by-project basis. For more information on HPT's coordination and documentation requirements, refer to the Cultural Resources section of the online EPG Guidance and Documents index.

Section 106 of the NHPA, as amended, requires all federal agencies to consider the effects of their undertakings on historic properties. The regulations implementing the NHPA (36 CFR 800) require consultation with the State Historic Preservation Office (SHPO), the Tribal Historic Preservation Office (THPO), or both, as well as with tribal communities and other interested parties. If a project is on tribal land or land managed by a federal or state agency, the landowner or land manager must be included in consultation. The role of SHPO is defined in both state law (Arizona Historic Preservation Act) and federal law (NHPA). Through its Review and Compliance Program, SHPO assists federal, state, county, and local agencies in meeting their preservation responsibilities as defined by federal and state law.

Figure 9-3 shows an overview of the cultural resource analysis and approval process.

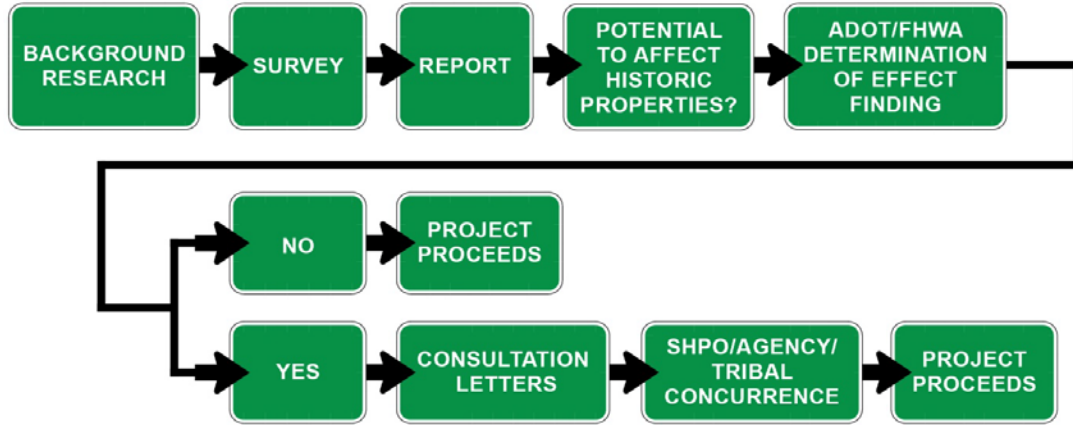


Figure 9-3 Cultural Resource Process

Class I and Class III Surveys

Every project requires a cultural resources assessment or investigation that usually begins with a records search (typically referred to as a Class I inventory or Class I survey) of the project area. Class I surveys typically occur during the project scoping phase and are used to determine whether all or portions of the project area were previously inventoried, to identify known cultural resources both within the project area and within the vicinity of the project area, and to make recommendations for additional investigations.

Project areas that have not been previously investigated or that are not adequate for consultation will generally require a Class III survey, which typically takes place during a project’s design phase. A Class III survey is a systematic pedestrian survey designed to identify all cultural resources, both prehistoric and historic, within the project area. Class I and Class III survey reports typically describe identified cultural resources, National Register of Historic Places eligibility recommendations, potential impacts on identified resources, and management recommendations for the avoidance or treatment of those resources.

Supplemental architectural inventory involving preparation of State of Arizona Historic Property inventory forms may be necessary for projects that are located adjacent to or within areas that may be designated as historic districts. HPT will determine whether an architectural inventory is needed.

Any cultural survey report generated by the LPA will be reviewed by ADOT, and ADOT will make a recommendation for a determination before forwarding the report to FHWA for review. If the submitted survey report with eligibility recommendations is deemed adequate, FHWA will make a determination, based on ADOT’s recommendation, regarding the project’s potential effect on historic properties. If FHWA makes a project determination of “no historic properties affected” and consultation with SHPO is not necessary, ADOT will provide a Determination of Effect on historic properties and notify the LPA that the project may proceed without FHWA approval. If ADOT determines that the project will have an “effect” on cultural resources, ADOT will draft a consultation letter that includes the Determination of Effect on cultural resources and submit to FHWA for distribution and consultation. The cultural survey report and consultation letter will be distributed by FHWA to SHPO or the applicable THPO, as appropriate, and to the applicable consulting agencies and tribes. FHWA will request consulting parties’ concurrence on the adequacy of the report, eligibility, and effect determinations. The consultation period typically takes 30 to 45 days. For projects that result in an “adverse effect” and require

mitigation, an agreement document (such as a memorandum of agreement or programmatic agreement) between FHWA, ADOT, and the LPA, as well as any other affected agencies or tribes, may be necessary. LPAs should consult HPT before initiating a memorandum of agreement or programmatic agreement.



An executed programmatic agreement between FHWA, SHPO, and ADOT permits ADOT to consult directly with SHPO on behalf of FHWA for the administration of the TE and local government programs where tribal consultation is not necessary. ADOT, on behalf of FHWA, will make a determination of project effect and provide SHPO 15 calendar days to respond.



Projects with “adverse effects” on cultural resources will require a consultation period, which typically takes 30 to 45 days.

Air Quality

Potential project impacts on air quality must be assessed as required by the CAA. During the preliminary design phase of a federally funded project, a qualified air quality specialist must determine the appropriate level of analysis required for the environmental clearance. The type of air quality analysis will depend on the scope of project activities, the current air quality statistics of the project area, and the presence of local receptors.

National Ambient Air Quality Standards

The CAA requires EPA to establish National Ambient Air Quality Standards (NAAQS) to regulate pollutants considered harmful to public health or welfare. Currently, there are NAAQS for six primary, or criteria, pollutants: sulfur dioxide, carbon monoxide, ozone, lead, particulate matter, and nitrogen oxides. Additional details regarding the NAAQS are available on EPA’s Office of Air and Radiation website (see the Resources list at the end of this chapter for a link to that website).

An area is classified as in “attainment status,” in “attainment with a maintenance plan” (also referred to as “maintenance status”), or in “nonattainment status” according to its compliance with the NAAQS. A map of attainment, nonattainment, and maintenance areas in Arizona is available on the Arizona Department of Environmental Quality (ADEQ) website (see the Resources list at the end of this chapter for a link to that website). LPAs should consult the map to determine the status of air quality within their project area.

If the project is within a designated nonattainment/maintenance area for one or more of the six criteria pollutants, then an analysis may be required to ensure that the project conforms to the overall air quality goals of the area. These air quality goals for nonattainment areas are outlined in the State Implementation Plan, which is an enforceable plan developed at the state and local level that explains how the area will comply with the NAAQS

according to the CAA. A federally funded transportation project must not create new violations of the NAAQS, increase existing violations, or delay the process of reaching attainment status. No additional criteria air pollutant analysis is required for projects within attainment areas. Some projects are exempt from conformity and therefore do not require an air quality analysis (see 40 CFR 93.126 for a list of exempt projects). The LPA should coordinate with the ADOT EPG Air and Noise Team to determine the potential for air quality impacts and whether or not air quality analysis is required.

Mobile Source Air Toxics

In addition to regulating criteria pollutants, EPA regulates air toxics called mobile source air toxics (MSATs). One of four levels of documentation and analysis is required for MSATs:

1. No MSAT documentation required for projects exempt from conformity determinations
2. Level 1 MSAT Documentation for projects with no potential for meaningful MSAT effects
3. Level 2 Qualitative MSAT Analysis for projects with low potential MSAT effects
4. Level 3 Quantitative MSAT Analysis for projects with high potential MSAT effects

The LPA should coordinate with the EPG Air and Noise Team to determine the level of required MSAT analysis on any particular project. LPAs should refer to FHWA's *Interim Guidance on Air Toxic Analysis in NEPA Documents* and the joint April 8, 2010, EPG/FHWA memorandum that summarizes guidance for evaluating MSATs. Refer to the Air Quality section of the online EPG Guidance and Documents index for detailed MSAT guidance.

Construction activities may result in temporary and short-term increases in emissions of criteria pollutants and MSATs. Mitigation measures during construction may be required. ADOT has developed commonly used mitigation measures that address construction impacts on air quality.



Compliance with county and/or tribal dust control regulations and conditions may be required.

Noise

During the preliminary design phase of a project, LPAs should review proposed alterations in roadway, traffic capacity, and distance to sensitive noise receivers in coordination with the EPG Air and Noise Team to determine whether a qualitative or quantitative noise analysis is required (see Appendix A for contact information). According to 23 CFR 772, a noise analysis is required for Type 1 federally funded highway projects. A Type 1 project is one that involves either the construction of a highway on a new location, an increase in the capacity of an existing roadway, or an alteration in the vertical or horizontal alignment of an existing transportation facility. A noise analysis documents both the existing and future noise environments, and it predicts traffic noise impacts by comparing the predicted future build noise levels at each activity area to both the noise impacts threshold for that type of receiver and the existing noise levels at that location. If the noise levels exceed levels determined by the

ADOT *Noise Abatement Policy*, then mitigation measures should be considered to reduce or eliminate the noise impact. These mitigation measures can take the form of noise barriers, traffic-control measures, or other approved methods of reducing the impact of traffic noise, and they must meet the criteria for feasibility and reasonableness listed in the ADOT *Noise Abatement Policy*. Refer to the Noise section of the online EPG Guidance and Documents index for additional guidance.



If there is any possibility that a project will qualify as a Type 1 project, LPAs should contact the ADOT EPG Air and Noise Team as early as possible in the planning process to determine the level of analysis that may be required.

Sections 4(f) and 6(f)

Federal transportation policy supports the preservation and integrity of publicly owned parks and recreation areas; wildlife and waterfowl refuges of national, state, or local significance; and historic sites of national, state, and local significance—collectively known as Section 4(f) properties. Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 USC 303) prohibits FHWA and all state transportation agencies from approving a transportation program or project requiring the use of any Section 4(f) property unless a determination is made that:

- ▶ The use will have no more than a de minimis impact on the area
- ▶ There is no feasible and prudent alternative to using the property
- ▶ The program or project includes all possible planning to minimize harm to the property resulting from the use

A “use” of a Section 4(f) resource, as defined in 23 CFR 774.17, occurs “(1) when land is permanently incorporated into a transportation facility; (2) when there is a temporary occupancy of land that is adverse in terms of the statute’s preservation purpose as determined by the criteria in 23 CFR 774.13(d); or (3) when there is a constructive use of a Section 4(f) property as determined by the criteria in 23 CFR 774.15.” As defined in 23 CFR 774.15(a), a “constructive use” of a Section 4(f) resource occurs “when the transportation project does not incorporate land from a Section 4(f) property, but the project’s proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired.” The following are examples of a constructive use (23 CFR 774.15[e][1–3]):

- ▶ The projected noise level increase attributable to the project substantially interferes with the use and enjoyment of a noise-sensitive facility of a property protected by Section 4(f).
- ▶ The proximity of the proposed project substantially impairs esthetic features or attributes of a property protected by Section 4(f), where such features or attributes are considered important contributing elements to the value of the property.
- ▶ The project results in a restriction on access, which substantially diminishes the utility of a significant publicly owned park, recreation area, or historic site.

Section 6(f) of the LWCF Act is indirectly related to Section 4(f) policy direction. This federal regulation, administered by the National Park Service (NPS), pertains to transportation projects that propose to convert outdoor recreation property that was acquired or developed with LWCF grant money. Section 6(f) requires NPS approval before any property acquired or developed through the LWCF can be converted to a nonrecreational purpose. NPS is not authorized to approve a Section 6(f) land conversion for a federal-aid highway project unless replacement land of equal value, location, and usefulness is provided as a condition (mitigation) of the conversion.

Section 4(f) and Section 6(f) are typically discussed in the same context of a proposed federal-aid transportation project because it is common for potentially affected Section 4(f) and 6(f) resources to have received funding through the LWCF.

The LPA is responsible for completing and documenting all relevant background research and investigation information pertaining to Section 4(f) and 6(f) resources and determinations. FHWA and ADOT EPG will provide the LPA assistance with determining the required information necessary to document any Section 4(f) and Section 6(f) resources. The online EPG Guidance and Documents index provides Section 4(f) policy guidance and a Section 4(f) negative declaration for independent bikeway and pedestrian walkway projects requiring the use of recreation and park areas. The latter is intended to reduce processing time and delays for 4(f) evaluations.

Water Resources

Water resources include surface waters, groundwater, floodplains, impaired waterbodies, and waterbodies regulated by the CWA. The presence or absence of these resources should be assessed so that a project's anticipated impact on water resources can be evaluated by ADOT during the NEPA process. The NEPA document should identify the locations, quantities, and sizes of water resources and provide an initial recommendation on the severity of project impacts on these resources.

While specific permits or authorizations may be required to impact or alter water resources, approvals from various federal, state, and local agencies are not considered a prerequisite for the issuance of environmental clearance by FHWA and ADOT. Securing CWA permits and authorizations can be very time consuming, typically taking 3 to 9 months to acquire. Therefore, LPAs should begin coordination with applicable agencies as soon as a project's extent of interaction with any water resource is known, and should obtain the necessary permits or approvals before construction. Requirements for LPA projects may include any or all of the following: a CWA Section 401 water quality certification, a CWA Section 402 Arizona Pollutant Discharge Elimination System (AZPDES) permit, a CWA Section 404 permit for dredge and fill material, a Rivers and Harbors Act Section 10 permit, or a county floodplain permit. The necessity of these certifications, permits, and clearances depends on the project site and specific project details.



CALENDAR WATCH

CWA certifications and authorizations can take 3 to 9 months to secure. LPAs should begin coordination with applicable agencies, including FHWA and ADOT, as soon as a project's interaction with water resources is known in order to avoid disruption to the schedule. Permits and approvals should be secured before construction.

Compliance with the CWA will be required for projects that involve the presence of water resources. The goal of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waterways. It prescribes the policies, practices, and procedures to be used in determining the extent of EPA and Corps jurisdiction over the waterbodies on a given project site. Waterbodies under EPA and Corps jurisdiction are known as waters of the United States (Waters), which are defined under 33 CFR 328.3. Projects that result in the discharge of any material, including stormwater, within Waters are subject to CWA regulations and may require the LPA to obtain permits or certification before construction. Sections 401, 402, and 404 of the CWA are commonly applicable to construction and maintenance projects, and action by the LPA may be required during the early stages of project planning. Authority to oversee Section 401 certifications and Section 402 permits is delegated by EPA to ADEQ; Section 404 permits are managed by the Corps with oversight from EPA.

Complying with the CWA, including obtaining the necessary approvals and certifications from the Corps, EPA, ADEQ, and tribes is the responsibility of the LPA. It is recommended that the applicability of the various CWA requirements for a given project be reviewed early in the project life cycle (i.e., during scoping) and frequently monitored during the design process to determine the appropriate CWA requirements so that sufficient time is allotted to obtain the necessary approvals and certifications.



Unlike during the NEPA process, ADOT EPG does not request coordination with the LPA or the review of documentation during the CWA process. The LPA is responsible for initiating applicable surveys, preparing documentation, and coordinating with the applicable agencies for the various CWA authorizations that may be required.

Clean Water Act Section 404

Section 404 requires Corps authorization for all discharges of dredged or fill material in Waters, including jurisdictional wetlands. Transportation-related activities such as road and bridge improvements, multiuse-path construction, and drainage maintenance, may be subject to regulation under Section 404. The Arizona Branch of the Corps Los Angeles District Regulatory Division is responsible for issuing CWA Section 404 guidance for Arizona.



Coordination with the Corps for reviews and approvals related to Section 404 will typically be limited to the Corps project manager assigned to the county/region/project type in which the project occurs; however, agency scoping on LPA projects should also include the Corps Arizona Branch chief. See Appendix A for contact information.

Technical information on the Corps' Section 404 permit process, including Corps guidance manuals and resource publications that assist in determining a project's permitting requirements, are maintained by the Corps and are available on the Corps Headquarters Regulatory Program and Permits website (see the Resources list at the end of this chapter). Also available are document templates, submittal instructions, and graphic standards that LPAs should use when preparing Section 404 reports and applications. Although the ADOT EPG Section 404 guidance and submittal requirements do not apply to LPA projects, the EPG Section 404 Procedures website is an excellent resource for obtaining general, relevant information on the Corps' Section 404 program, including applicable policies, regulations, and permits common to transportation projects. The Resources list at the end of this chapter provides links to the Corps and EPG Section 404 Procedures websites, which include the reference materials that are further discussed in this Water Resources section. Figure 9-4 shows an overview of the Section 404 analysis and approval process.

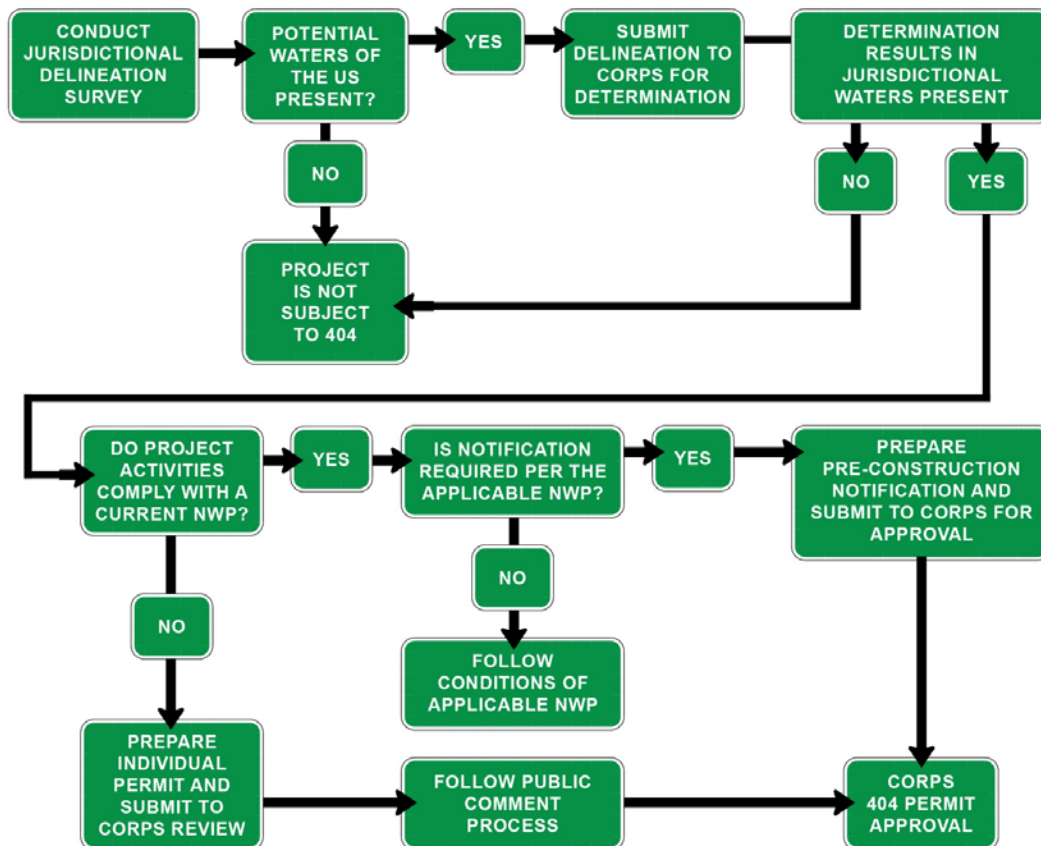


Figure 9-4 Section 404 Process

Jurisdictional Determinations

The LPA's initial step in the CWA process is to determine the presence of Waters on a given project site by conducting a jurisdictional delineation (JD) of the project area. This information is needed before determining the project's requirements for CWA Section 404 permitting. JDs evaluate the potential for the existence of Waters by assessing the presence or absence of an ordinary high-water mark and other specific physical characteristics associated with Waters according to Corps guidance. Typical Waters affected by LPA projects include lakes, rivers, creeks, ephemeral washes, and wetlands. Swales and erosional features are generally not considered Waters, as they typically lack the physical characteristics of a jurisdictional waterbody. Currently, the Corps offers the following reference manuals for conducting JDs:

- ▶ *Guidelines for Jurisdictional Determinations for Waters of the United States in the Arid Southwest*, June 2001
- ▶ *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States*, August 2008
- ▶ *Jurisdictional Determination Form Instructional Guidebook*, May 2007
- ▶ *Regulatory Guidance Letter No. 08-02*, June 26, 2008
- ▶ *Corps of Engineers Wetland Delineation Manual*, January 1987
- ▶ *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*, September 2008
- ▶ *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region*, April 2008



CAUTION

Before performing JDs, LPAs should check the Corps website for guidance updates. For complex projects, LPAs should also contact the Corps Arizona Branch for project-specific guidance early in the process.

According to the Corps Regulatory Guidance Letter 08-02, there are two JD options: preliminary and approved. A preliminary Jurisdictional Delineation (PJD) is a quicker process and therefore is the most commonly used option; it is also preferred by FHWA, according to its May 6, 2009, guidance memo regarding PJDs and approved JDs. A PJD assumes that all potential Waters identified are hydrologically connected to navigable Waters and are therefore jurisdictional. An approved JD is only required for a determination that the waterbodies on the project site are not jurisdictional because they are not hydrologically connected to navigable Waters, or for when a legally defensible statement regarding the jurisdictional status of the Waters on the site is desired. Currently, the Corps does not have the authority to issue approved JDs, so the Corps forwards approved JD reports to EPA for review and approval, which can add significant time to the approval process.



A preliminary JD does not expire, but it is nonbinding. An approved JD is valid for 5 years, and the project must be in construction before the expiration of the approved JD or an extension from the Corps will be needed. For both types of JDs, if the characteristics of the Waters on the site change significantly before construction, the updated information should be sent to the Corps for its review, and a revised preliminary or approved JD may be issued.

Nationwide Permits

Certain activities involving the discharge of dredged or fill material into Waters are authorized under the Corps 2012 Nationwide Permit (NWP) Program (Federal Register Notice Vol. 77, No. 34, 10184-10290, effective until March 18, 2017). NWPs authorize discharges to Waters that occur due to a variety of specific activities, provided that the project meets the conditions for the applicable NWP, including the NWP General Conditions and the Regional Conditions for Arizona. Depending on the conditions for a given NWP and interaction with surrounding resources (e.g., cultural and biological resources), the LPA may be required to notify the Corps of the project specifications. NWPs common to transportation-related projects include NWP No. 3 (Maintenance), No. 6 (Survey Activities), No. 12 (Utility Line Activities), No. 14 (Linear Transportation Projects), and No. 33 (Temporary Construction, Access, and Dewatering).

Projects that involve impacts on Waters but that do not require notification based on the conditions of the applicable NWP (referred to as “non-notifying”), are authorized to proceed under the conditions of that applicable NWP with no application required. If notification is required due to project design and the conditions of the applicable NWP, the LPA must complete a Pre-Construction Notification application and submit it to the Corps for review and approval before construction. A full listing of current NWPs and submittal requirements are available on the Corps Headquarters’ website (see the Resources list at the end of this chapter for a link to that website).



Corps review and approval of a Pre-Construction Notification typically takes 3 to 4 months. Once approved, the NWPs are valid until the date listed on the verification letter. If an NWP expires before project construction, an extension from the Corps will be required.

Individual Permits

For projects with impacts on Waters that do not meet the conditions of any NWP or that exceed the threshold of the applicable NWP, the LPA must prepare an individual permit (IP). An IP necessitates greater input on project purpose and need as compared to an NWP and must identify a least environmentally damaging practicable alternative through the completion of a decision document that constitutes the Corps’ Environmental Assessment, 404(b)(1) Guidelines Evaluation, Public Interest Review, and Statement of Findings. IPs also carry mandatory mitigation requirements and a 30-day comment period intended to provide an opportunity for agency and public

input on the project. More details on required IP documentation are available on the Permit Process and Technical Information page of the Corps website (see the Resources list at the end of this chapter for a link to that website).



CALENDAR WATCH

It typically takes 6 to 9 months for the Corps to review and approve an IP. Once approved, IPs are valid for a specified time period, which is typically 2 years.



CAUTION

The project's biological and cultural resource information, including the managing resource agency's concurrences, is required for the approval of Pre-Construction Notifications and IPs.

Clean Water Act Section 401

CWA Section 401 requires the State to certify that proposed discharges associated with a project are in compliance with applicable effluent limits, Arizona's water quality standards, and any other appropriate requirements of state law. EPA has delegated authority to ADEQ to grant, deny, or waive Section 401 water quality certification for both IPs and NWPs. The Corps cannot issue a permit for a project if ADEQ has not approved or waived certification or has denied Section 401 certification for that project. Certain activities have been precertified by ADEQ if they meet the Section 401 certification requirements of the applicable NWP, so the requirements should be reviewed to determine whether individual certification is necessary. If individual certification is required, the Application for Coverage under the CWA Section 401 Certification Form must be completed and submitted to ADEQ. To obtain a Letter of Certification from ADEQ, the LPA must demonstrate that the proposed project will not cause or contribute to the violation of state water quality standards or conditions established by the Water Quality Control Council.

Clean Water Act Section 401 Permits for Projects on Tribal Land

If the project is located on tribal land, individual water quality certification may be required. Since the State does not have authority over tribal land, certification for those projects is obtained from EPA or from the appropriate tribal EPA, as applicable. The January 17, 2007, letter, *Conditional Clean Water Act (CWA) § 401 Certification of the 2007 Nationwide Permits (NWPs) for Projects on Applicable Tribal Lands*, including general conditions describes EPA's process and submittal requirements for Section 401 certification on tribal land. This letter is on page 50 of the *Special Public Notice: Nationwide Permits for Arizona*, which can be found on the Corps Regulatory Division website (see the Resources list at the end of this chapter for a link to that website).

Clean Water Act Section 402

The National Pollutant Discharge Elimination System (NPDES) Program is authorized under Section 402 of the CWA and provides the statutory basis and structure for regulating the discharge of pollutants from any point sources into Waters. However, in 2002, ADEQ was delegated the authority to implement the AZPDES Program, under the primacy of the NPDES Program, on the state level for nontribal lands. If the project will cause any discharge of pollutants off-site or into Waters on nontribal lands, including sediments from construction projects, an AZPDES permit is required.

There are two types of AZPDES permits: general and individual. General AZPDES permits allow for coverage under one permit for similar activities within a specific category, industry, or area. For example, the AZPDES Construction General Permit (CGP) (Permit No. AZG2008-001) covers all construction sites that disturb 1 acre or more, and the AZPDES Phase II MS4 stormwater permit covers small municipal separate storm sewer systems (MS4s). If the project meets the requirements for an available general permit, the project must obtain coverage under and comply with the conditions of that permit in order to be covered under CWA Section 402. If the project does not fall within the coverage of a general permit, an individual AZPDES permit with specialized conditions will be required.

ADOT has an individual AZPDES permit – the Statewide Stormwater Discharge Permit – which provides coverage for the agency on all ADOT-administered state and local projects on nontribal land. ADOT's Statewide Stormwater Discharge Permit only covers ADOT, not the LPA; therefore, the LPA must obtain separate coverage under AZPDES (e.g., through the AZPDES CGP). For additional information on AZPDES/NPDES permitting, forms, best management practices, and example stormwater pollution prevention plans (SWPPPs), refer to the ADEQ and EPA websites listed in the Resources list at the end of this chapter.

Stormwater Pollution Prevention Plans

The AZPDES CGP, which is commonly used for LPA construction projects, requires the preparation of a SWPPP as a condition of the permit and the submittal of a Notice of Intent (NOI) with applicable fee payment before beginning ground disturbance activities. A SWPPP is a detailed document that describes how a contractor will address, control, and maintain structural implements and nonstructural practices designed to reduce pollution and restore conditions of natural surroundings before, during, and after construction phases. The SWPPP is a living document that must be updated frequently with dated records of construction activity, inspections, monitoring, maintenance of best management practices, and stabilization activities. Commonly, a contractor is hired to prepare the SWPPP.



If any other municipality with an MS4 has the potential to receive a stormwater discharge from construction activities, a copy of the NOI that was submitted to ADEQ, EPA (if on tribal lands), or both must be sent to that municipality. Pima County and Maricopa County also require copies of new and resubmitted NOIs.

The SWPPP must be prepared before filing an NOI with ADEQ. For ADOT-administered projects, the SWPPP must be reviewed and approved by the ADOT resident engineer before submittal of the NOI. For approved self-administration projects and Certification Acceptance projects, the NOI can be submitted upon LPA approval of the SWPPP.

Following submittal of the NOI with the applicable fee payment, ADEQ has a 7-day review period for most projects. If the project is located within ¼ mile of an ADEQ-defined Unique or Impaired Waterbody or if the project involves an area determined to contain suitable habitat for threatened and endangered species, the review period may be up to 32 days and the SWPPP must be submitted to ADEQ for review. The review period begins following ADEQ receipt of the NOI and the applicable fee payment, which ranges from \$250 to \$750 depending on the extent of ground disturbance; SWPPP review, if required, has an additional \$1,000 fee. Coverage is granted once ADEQ issues an authorization certificate, which may occur in as little as a few days. Expedited authorization of the NOI is available through the use of the ADEQ Smart NOI electronic signature system (see the Resources list at the end of this chapter for a link to that website). The NOI should be submitted early enough to allow ADEQ ample time to review the NOI and provide authorization before the expected initial construction date.

Once construction disturbance activities are complete, the AZPDES CGP requires that ground surfaces disturbed by construction be stabilized before submittal of a Notice of Termination. The stabilization requirements can be difficult to achieve during the active construction period, particularly when stabilization relies on vegetative growth (i.e., turf seeding, native seeding) to satisfy permit criteria. LPAs whose activities trigger coverage under the AZPDES CGP cannot close out a project until approved to do so by the ADOT resident engineer and the Notice of Termination has been accepted by ADEQ.

Stormwater Pollution Prevention Plans for Projects on Tribal Land

ADEQ is the permitting authority for all regulated discharges on nontribal Arizona land, and EPA is the permitting authority for all regulated discharges from projects that are on tribal land in Arizona. If the project is located wholly on tribal land, and construction disturbs 1 acre of land or more, coverage under the NPDES General Permit for Discharges from Construction Activities (EPA-CGP) is required. If the project is located only partially on tribal land, coverage under the AZPDES CGP is required in addition to the EPA-CGP; the project would have to comply with the conditions of both the NPDES EPA-CGP and the AZPDES CGP in order to be covered under CWA Section 402. One SWPPP meeting the conditions of both permits is acceptable, but separate NOIs must be submitted to ADEQ and EPA for projects partially on tribal land.



For projects wholly on tribal land, NOIs must be filed with EPA by both the LPA and ADOT for coverage under the NPDES EPA-CGP. For projects partially on tribal land, NOIs must be filed with EPA by both the LPA and ADOT for coverage under the NPDES EPA-CGP (for the tribal portion of the project), and an NOI must be filed with ADEQ by the LPA for coverage under the AZPDES CGP (for the nontribal portion). On nontribal lands, ADOT has coverage under their individual AZPDES permit, and do not have to file a separate NOI with ADEQ.

Following submittal of the NOI, EPA has a 14-day review period. Coverage is granted once EPA issues an authorization certificate, which typically takes the full 14 calendar days. Expedited authorization of the NOI is available through EPA's Electronic Stormwater Notice of Intent (eNOI) system (see the Resources list at the end of this chapter for a link to that website). The NOI should be submitted early enough to allow EPA ample time to review the NOI and provide authorization before the expected initial construction date.



ADEQ has a 7-day review period for NOI submittals, and typically authorizes coverage in 1 week (but authorize in as little as a few days). EPA has a 14-day review period for NOI submittals, but EPA typically authorizes coverage in 14 calendar days.

Rivers and Harbors Act

Under Section 10 of the Rivers and Harbors Act of 1899, a Corps permit is required to do work within, over, or under “navigable waters” (33 CFR 329.4). Waters that have been previously determined by the Corps to be navigable waters are designated as “traditional navigable waters” (TNWs). Currently the Colorado River reaches the Santa Cruz River and Gila River and is considered TNWs. LPAs must apply for a Section 10 permit to work within the jurisdictional limits of these waterbodies. The LPA should consult the Jurisdictional Determinations page of the Corps Regulatory Division website for a list of TNW decisions, which includes information on the locations of the Corps-designated TNW reaches of the Santa Cruz River and Gila River (see the Resources list at the end of this chapter for a link to that website). The permit application required for Section 10 approval is the same application used for NWP or IP notification.

Floodplains

Protection of floodplains and floodways is required under the following: FHWA's *Federal-Aid Policy Guide, Location and Hydraulic Design of Encroachments on Flood Plains* (23 CFR 650A); FEMA Executive Order 11988, *Floodplain Management*; and U.S. Department of Transportation Order 5650.2, *Floodplain Management and Protection*.

LPAs are responsible for assessing and avoiding or minimizing project impacts on base floodplains and regulatory floodways. A preliminary assessment is necessary to determine whether a project alternative will encroach on any base floodplain or regulatory floodway, and the results should be incorporated into the NEPA document. The Flood Insurance Rate Maps page of the FEMA website provides a delineation of special hazard areas and the risk premium zones applicable to a project area (see the Resources list at the end of this chapter for a link to that website).

The LPA must procure the necessary federal and county floodplain permits before construction. Any work in a floodplain must be based on accepted hydrologic and engineering studies. In association with the previously mentioned federal orders, the LPA should consult the following ADOT guidelines and manuals for further information related to hydrologic and engineering design within floodplains (see the Resources list at the end of this chapter for links to these documents):

- ▶ *ADOT Highway Drainage Design Manual: Hydraulics*
- ▶ *ADOT Bridge Hydraulics Guidelines*

As of July 2011, Coconino, Cochise, Gila, Maricopa, Mohave, Pima, Santa Cruz, Yavapai, and Yuma Counties administer countywide programs designed to provide comprehensive flood-control protection. During the scoping phase, the LPA should contact the applicable county floodplain administrator to determine the local policies and design standards that may also apply (see Appendix A for contact information).

Hazardous Materials

During the environmental clearance process, LPAs must identify any hazardous materials which may be present in potential project areas. Hazardous materials assessments are conducted early in the project development process to minimize the risk of unexpected project costs and risks to health and safety. The LPA should have a qualified hazardous materials specialist review the project area to assess the potential for hazardous materials. A complete list of required professional and educational qualifications is available in the Hazardous Materials section of the online EPG Guidance and Documents index.



Hazardous materials assessment documents approved by ADOT EPG are valid for 180 days from date of completion. If the document is older than 180 days, the EPG planner must be contacted to determine whether additional assessment is necessary.

ADOT EPG requires a preliminary initial site assessment (PISA) for hazardous materials clearance on most projects. The PISA involves a records check to review EPA and ADEQ records of known hazardous materials sites or incidents (leaking underground storage tanks, landfills, spills, etc.) within a given area within or near the project site. The PISA summarizes the results of the records check, as well as observations made during field verification. Data for the records check is available from online EPA and ADEQ databases and from commercial sources. If the PISA identifies hazardous materials at a project site, Phase I, Phase II, and Phase III environmental site assessments may be required.

For projects involving renovation or demolition activities of a load-bearing structure, asbestos testing and National Emission Standards for Hazardous Air Pollutants notification is required for compliance with 40 CFR 61. Abatement may also be required if asbestos or air pollutants are identified. If paint will be obliterated as part of a project, lead-based-paint testing will also be required. The LPA should contact the ADOT Hazardous Materials Team to confirm the need for asbestos and lead-based paint testing (see Appendix A for contact information).



Maricopa Country requires the asbestos test to be less than 1 year old.



If any paint will be obliterated as part of a project, lead-based-paint testing will be required.

These hazardous materials investigations must be current at the time the NEPA determination is made, with mitigation measures in place in the event that conditions change before bid and award.

Socioeconomics Considerations

According to 23 USC 109(h) of the Federal-Aid Highway Act of 1970, federally funded projects should make final decisions that consider adverse economic, social, and environmental effects, including:

- ▶ Air, noise, and water pollution
- ▶ Destruction or disruption of human-made and natural resources
- ▶ Aesthetic values, community cohesion, and the availability of public facilities and services
- ▶ Adverse employment effects and tax and property value losses
- ▶ Injurious displacement of people, businesses, and farms
- ▶ Disruption of desirable community and regional growth

Where there are foreseeable impacts on a community or group of people, the LPA should analyze and document the level of impacts, including:

- ▶ Changes in the neighborhoods or community cohesion for various social groups
- ▶ Changes in travel patterns and accessibility to vehicular traffic, bicycles, or pedestrians
- ▶ Direct impacts on school districts, churches, police, and fire protection
- ▶ Impacts on overall public safety
- ▶ Specific impacts on general social groups, such as the elderly, people with disabilities, transit-dependent people, and minority/ethnic groups

Documentation prepared during the NEPA process should address the severity of possible impacts and identify the mitigation measures necessary to avoid or minimize any adverse effects.

Relocation Impacts

If relocations are required, the LPA should provide relocation information for all proposed alternatives to adequately explain the relocation situation, including anticipated problems and proposed solutions. Typical factors to consider include the number of potentially displaced households or businesses, the number of comparable available replacement dwellings or sites, and the LPA's policy on relocation and displacement. For additional details, see the Relocation Process and Uniform Act sections of Chapter 10, Right-of-Way Clearances.

Environmental Justice and Title VI

Title VI of the Civil Rights Act of 1964 and related statutes are intended to prevent individuals from being excluded in, denied the benefit of, or subjected to discrimination on the basis of race, color, national origin, age, sex, and disability. Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directs that federal programs, policies, and activities not have a disproportionately high and adverse human health and environmental effect on minority and low-income populations. ADOT's Title VI and environmental justice overview is provided in the Environmental Justice section of the online EPG Guidance and Documents index.

All LPAs that receive federal-aid funding for transportation projects and programs are required to comply with Title VI. Additionally, Executive Order 12898 requires federal agencies to include environmental justice as part of their missions. Because ADOT receives federal financial assistance, it is responsible for meeting federal environmental justice regulations.

LPAs should identify and evaluate environmental justice for NEPA compliance and appropriately document whether a project will have temporary, adverse, or permanent effects on any businesses, residents, or landowners when preparing environmental documents.

Visual Resources

Visual resources must be analyzed as an integral part of the NEPA process for transportation projects. A visual resource analysis is an explanation of the existing visual character of the subject landscape, with a discussion regarding the impacts that a proposed project would have on the existing visual character. The analysis then discloses whether or not the proposed project would be in compliance with existing visual management objectives, if any. LPAs should refer to the *Visual Impact Assessment for Highway Projects* (Publication No. FHWA-HI-888-054) for guidance on highway planning and assessment.

USFS and BLM have established specific resource management plans for the lands they manage that require the analysis of visual resources. Visual analysis performed on USFS land should be consistent with the *Visual Management System* manual (Agricultural Handbook No. 462) or the *Landscape Aesthetics* manual (Agricultural Handbook No. 701). Visual analysis performed on BLM land should be consistent with the *Visual Resource Contrast Rating* manual (BLM Handbook 8431-1). LPAs should contact ADOT EPG to coordinate with USFS and BLM in order to determine the full scope of visual analysis that would be required for a particular project (see Appendix A for contact information).

Other Environmental Clearances

Materials Source Clearances

NEPA analysis completed for an LPA project must include the evaluation of potential materials sources *only if* the source is predesignated during the planning/programming phase or before construction. However, if a potential materials source is not predesignated, the LPA's contractor will be responsible for obtaining environmental clearance from the ADOT Materials Group, independent of the project's overall NEPA clearance.

ADOT EPG oversees the preparation of environmental documents for all materials sources, and offers separate environmental clearance processes for both ADOT-licensed materials sources and contractor-furnished materials sources. The Materials Sources section of the online EPG Guidance and Documents index provides guidance on each of these processes and the required documentation. Materials source clearances are separate from the materials report clearance that may also be required during the development/design phase of an LPA project. Refer to Chapter 12, Materials Report Clearances, for information regarding materials report clearance requirements.

ADOT-Licensed Materials Sources

For projects that propose to use an existing ADOT-licensed materials source, rather than developing or stockpiling materials at a new location, LPAs should refer to the *Environmental Checklist and Clearance Memos for ADOT Material Sources*, which can be found on the Materials Source website (see the Resources list at the end of this chapter). The checklist requires project information, including results from environmental resource studies (e.g., cultural resources). Once approved by EPG, the LPA may use the selected ADOT-licensed materials source as conditioned.

Contractor-Furnished Materials Sources

Material from a non-ADOT-licensed materials source cannot be used on a federally funded project until the source has successfully completed the EPG environmental analysis process. To initiate the EPG environmental analysis process, the LPA must have the materials source owner or operator complete the *Material Source Environmental Analysis Application* form and submit it to EPG (refer to the Contractor-Furnished Material Sources section of the online EPG Guidance and Documents index for the form). This form, which includes a cultural survey and report, allows EPG to adequately evaluate the listed material source for compliance with NEPA and ADOT standards. Once EPG has received a completed application, it will initiate a cultural consultation process, if necessary. Following completion of consultation, the materials source will receive a tracking number and will be included on EPG's list of contractor-furnished materials sources.



ADOT EPG review, with any required tribal or SHPO cultural consultation, takes approximately 45 days from the receipt of a completed materials source application.

To use a materials source from the list of contractor-furnished materials sources, the LPA must submit the *Material Source Environmental Analysis Update* form to EPG. Through this form, the contractor agrees to the compliance measures, including any and all mitigation measures stipulated in the accepted environmental analysis application. The update form must also be submitted for any subsequent use of the materials source for other projects, but the *Material Source Environmental Analysis Application* form does not need to be submitted again for that source.

EPG’s list of contractor-furnished materials sources that have previously completed an environmental analysis is available on the Contractor-Furnished Material Sources section of the online EPG Guidance and Documents index. Inclusion on the list does not guarantee that the materials source will be available for all projects. The LPA should consult with the assigned ADOT resident engineer for approval of any listed materials source.



The identification and extent of any haul road (defined as a road leading from a government-maintained road to the materials source) is required with any materials source evaluation so that CWA permitting requirements and biological and cultural resources can be adequately evaluated. Regardless of the status of a materials source, the expansion of boundaries or haul roads used at any site may require additional cultural resources consultation and additional review by ADOT EPG. For contractor-furnished materials sources, changes in ownership will require that a new application be completed.

Geotechnical Investigation Clearances

For federally funded projects that require geotechnical investigation, ADOT EPG’s geotechnical clearance process should be followed to obtain environmental clearance and to establish any necessary mitigation measures. LPAs should coordinate with their designated EPG liaison to obtain clearance for the investigation plan and any associated temporary features (e.g. access roads, staging areas) before initiating on-site activities.

To obtain geotechnical clearance, the LPA must evaluate site-specific environmental issues by completing the Geotech Compliance Form. EPG has identified hazardous materials, biological resources, and cultural resources as technical specialties that require critical evaluation on the form before issuing geotechnical clearance. Following receipt of a completed Geotech Compliance Form, EPG will issue geotechnical clearance, which permits the geotechnical investigation plan to proceed.



Approval of the planned geotechnical sampling locations and methods of investigation will require approval from the Geotechnical Design Section of the ADOT Materials Group before commencing field operations. This coordination typically occurs during Stage I design (15% plans). Any changes to an approved geotechnical plan will require additional review by the Materials Group and by ADOT EPG. For information on ADOT standards for geotechnical investigation plans, refer to the Geotechnical Investigation Plan/Materials Source Approval section in Chapter 12, Materials Report Clearances.

Refer to the online EPG Guidance and Documents index for the required checklists and forms applicable to each resource. The LPA should coordinate with the EPG NEPA planner upon the initiation of the geotechnical clearance process.

Mitigation Measures

Mitigation measures are commitments made during the environmental evaluation and study process that serve to moderate or lessen negative impacts of the project on the human and natural environment. The Categorical Exclusions section of the online EPG Guidance and Documents index has a downloadable list of commonly used mitigation measures for ADOT highway and LPA projects. These standard measures are to be used as appropriate during preparation of environmental documents, and they cannot be modified. Proposed mitigation measures that are not included on the list must be reviewed and approved by EPG (if applicable); the ADOT district engineer; the ADOT project manager, and the LPA (as appropriate) to ensure that they are constructible. Approved mitigation measures must be adhered to and cannot be changed. All mitigation measures that are identified and agreed upon appear in the environmental clearance document and the associated clearance memo. FHWA will not authorize federal-aid funds for construction without verification that mitigation measures are included in the PS&Es and bid documents (23 CFR 635). Mitigation measures identified for a contractor must be included in the contract specifications. Failure to implement the mitigation measures could result in the revocation of permits, funding, or FHWA environmental approval—thus resulting in the inability of the LPA to complete the project.

Roles and Responsibilities

ADOT-Administered Projects

For ADOT-administered projects, ADOT negotiates with the applicable agencies to determine appropriate mitigation measures for impacts identified in the environmental clearance document. Additionally, ADOT ensures that those mitigation measures are implemented properly during the construction phase. The implementation of some mitigation measures may be assigned at the contractor level. However, LPAs are financially responsible for their local portion of the mitigation implementation, unless determined otherwise in an IGA.

Certification Acceptance and Self-Administered Projects

Certified and self-administering LPAs are solely responsible for ensuring that the mitigation measures in the environmental clearance document are successfully implemented. LPAs are financially responsible for their local portion of the mitigation implementation, unless determined otherwise in an IGA or other contract document.

Projects on Federal, State, and Tribal Lands

Projects that involve tribal, federal, or state land require additional coordination and, sometimes, additional studies or approvals. In Arizona, tribal, federal, or state land includes Indian reservations, national wildlife refuges, national forests, national monuments, State Trust land, and military reservations or bases.

In some cases, the federal, state, or tribal agency may participate as a cooperating agency for the NEPA review (EAs and EISs). A *cooperating agency* is an organization, other than FHWA, that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposed action. ADOT, in association with FHWA, will determine whether any federal, state, or tribal agency should be invited to be a cooperating agency, as outlined in 40 CFR 1501.6. Applicable tribal, federal, and state agencies, regardless of cooperating-agency status, should still be included in interdisciplinary teams engaged in the NEPA process.

Federal Land

For LPA projects on federal land, it is strongly recommended that LPAs begin coordinating with FHWA, ADOT, and applicable federal agencies as early in the process as possible. In some cases, the technical resource evaluations may be prepared using the federal agency’s preferred format to expedite the review and determination of project impacts. For example, USFS maintains a document template for evaluating biological resources, a Biological Assessment and Evaluation. During early consultation, ADOT and the affected federal agencies determine whether special analysis or templates may be needed for review and approval. If a project is on BLM- or USFS-administered land, the protocol listed in the current memorandum of understanding between ADOT, FHWA, and BLM or USFS, as appropriate, applies (see the *Guidelines for Highways on Bureau of Land Management and U.S. Forest Service Lands 2008*, which is referenced in the Resources list at the end of this chapter).

State Land

The State of Arizona has jurisdiction over numerous state parks and land parcels. LPAs should consult state officials if a proposed project may impact state property. FHWA and ADOT are currently developing a memorandum of understanding with the Arizona State Land Department. Once developed, LPAs must follow the protocol in the memorandum of understanding.

Tribal Land

Arizona is home to 22 federally recognized tribes. FHWA has a government-to-government relationship with Indian tribal governments that is affirmed in treaties, Supreme Court decisions, and executive orders. FHWA and other federal agencies are required to consult with tribes regarding policy and regulatory matters. Additionally, 23 USC 134 and 23 USC 135 establish consultation requirements with tribes through the statewide and metropolitan planning and programming processes.

The level of NEPA documentation and the environmental studies required for a project may change depending on whether the project is located partially or wholly on tribal land. Contact ADOT EPG to determine the correct level of NEPA compliance (see Appendix A for contact information). ADOT and FHWA, not the LPA, will coordinate with the tribes.



LPAs should defer to ADOT HPT and to FHWA for all tribal consultation and communication. Surveyors should not conduct field reviews on tribal land without prior HPT coordination with affected tribes.

Issue Resolution

Escalation Process

If conflicts arise during the environmental clearance process that cannot be resolved through coordination with the ADOT EPG NEPA planner, the ADOT project manager should be contacted.

Recordkeeping and Reporting

In accordance with ARS 35-214, all environmental records and documents generated during the project must be retained by the LPA for a minimum of 5 years following FHWA closeout of the project in the FMIS.

LPAs should be aware of the importance of maintaining complete and accurate project files during the NEPA process. If a lawsuit is filed against the project that challenges the decisions made in the NEPA process, an administrative record must be compiled. An administrative record must contain all materials that were considered by FHWA in reaching its decision under NEPA, and is used by the court during its review of FHWA's decision. For more information on requirements for compiling an administrative record, see the *AASHTO Practitioner's Handbook, Maintaining a Project File and Preparing an Administrative Record for a NEPA Study* as referenced in the Resources list at the end of this chapter.

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RESOURCES

ADOT Environmental Planning Group Guidance Documents

<http://www.azdot.gov/business/environmental-services-and-planning/environmental-guidance-documents>

- ▶ Air Quality
- ▶ Arizona Historic Bridge Inventory
- ▶ Biology
- ▶ Categorical Exclusions
- ▶ Cultural Resources
- ▶ Environmental Assessments
- ▶ Environmental Justice
- ▶ Geotechnical Clearance
- ▶ Hazardous Materials
- ▶ Material Sources ADOT-Licensed/Contractor-Furnished
- ▶ National Environmental Policy Act (NEPA) Regulations and Process
- ▶ Noise
- ▶ Section 4(f)
- ▶ Section 404 Procedures (includes Section 401 information)
- ▶ Wildlife Connectivity

ADOT Guidelines for Highways on Bureau of Land Management and U.S. Forest Service Lands 2008

<http://www.azdot.gov/business/engineering-and-construction/roadway-engineering/roadway-design-standards-and-guidelines/guidelines-for-highways-on-bureau-of-land-management-and-us-forest-service-lands>

U.S. Department of Transportation Notice: Federal Environmental Laws and Executive Orders Applicable to the Development and Review of Transportation Infrastructure Projects

<http://www.federalregister.gov/articles/2004/05/06/04-10308/federal-environmental-laws-and-executive-orders-applicable-to-the-development-and-review-of>

Air Quality

Arizona Department of Environmental Quality (ADEQ) eMaps

<http://gisweb.azdeq.gov/arcgis/emaps/?topic=nonattain>

U.S. Environmental Protection Agency (EPA) Office of Air and Radiation

<http://www.epa.gov/air/index.html>

EPA National Ambient Air Quality Standards

<http://www.epa.gov/air/criteria.html>

FHWA Interim Guidance Update on Mobile Source Air Toxics Analysis in NEPA

http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/100109guidmem.cfm

FHWA Transportation Conformity

http://www.fhwa.dot.gov/environment/air_quality/conformity/

FHWA Transportation and General Conformity Frequently Asked Questions

http://www.fhwa.dot.gov/environment/air_quality/conformity/reference/faqs/genfaqsmemo.cfm

Biological Resources

Arizona Game and Fish Department Heritage Data Management System

<http://www.azgfd.gov/hgis/>

U.S. Fish and Wildlife Service Southwest Region Ecological Services County Species Lists

<http://www.fws.gov/southwest/es/arizona/Threatened.htm#CountyList>

Clean Water Act

Section 404

FHWA Guidance Memo on Preliminary Jurisdictions

http://environment.fhwa.dot.gov/ecosystems/laws_usacememo.asp

FHWA Wetland Policy (23 CFR 777) – Mitigation of Impacts to Wetlands and Natural Habitat

<http://www.fhwa.dot.gov/hep/23cfr777.htm>

U.S. Army Corps of Engineers (Corps) Headquarters Regulatory Program and Permits Website

<http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx>

Corps Los Angeles District Regulatory Website

<http://www.spl.usace.army.mil/Missions/Regulatory.aspx>

Corps Regulatory Guidance Letter No. 08-02, June 26, 2008

<http://www.usace.army.mil/Portals/2/docs/civilworks/RGLS/rgl08-02.pdf>

Corps Jurisdictional Determination Form Instructional Guidebook, May 2007

<http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/RelatedResources/CWAGuidance.aspx>

Section 401

ADEQ Application for Coverage under the Clean Water Act Section 401 Certification

<http://www.azdeq.gov/envirom/water/permits/download/401app2.pdf>

Section 402

ADEQ General Permits (with associated forms)

<http://www.azdeq.gov/function/permits/general.html>

ADEQ Notice of Intent (NOI) Construction Stormwater General Permit Database Search

<http://www.azdeq.gov/databases/azpdesssearch.html>

ADEQ Smart NOI Program Website

<http://az.gov/app/smartnoi/>

EPA Electronic Stormwater Notice of Intent (eNOI) Website

<http://water.epa.gov/polwaste/npdes/stormwater/index.cfm>

EPA Region 9: Water Program, National Pollutant Discharge Elimination System Wastewater and Stormwater Permits

<http://www.epa.gov/region9/water/npdes/index.html>

EPA Stormwater Program

<http://water.epa.gov/polwaste/npdes/stormwater/index.cfm>

EPA View Stormwater NOIs (NOI search website)

<http://cfpub.epa.gov/npdes/stormwater/noi/noisearch.cfm>

Cultural Resources

National Historic Preservation Act of 1966 (Public Law 102-575)

<http://www.achp.gov/nhpa.html>

State Historic Preservation Office

<http://azstateparks.com/SHPO/index.html>

Floodplains

ADOT Bridge Guidelines

<http://www.azdot.gov/business/engineering-and-construction/bridge/guidelines>

ADOT Highway Drainage Design Manual: Hydraulics

<http://www.azdot.gov/docs/business/highway-drainage-design-manual-hydraulics.pdf?sfvrsn=0>

Arizona Floodplain Management Association

<http://www.azfma.org/>

Executive Order 11988, Floodplain Management

<http://www.fema.gov/environmental-planning-and-historic-preservation-program/executive-order-11988-floodplain-management>

Federal Emergency Management Agency National Flood Insurance Program,
Flood Insurance Rate Maps

<http://www.fema.gov/floodplain-management/flood-insurance-rate-map-firm>

U.S. Department of Transportation Order 5650.2, Floodplain Management and Protection

<http://www.fta.dot.gov/documents/Floodplain.pdf>

Hazardous Materials

ADEQ Waste Programs Division

<http://www.azdeq.gov/environ/waste/index.html>

EPA Envirofacts

<http://www.epa.gov/enviro/index.html>

EPA Superfund Website (Comprehensive Environmental Response, Compensation, and Liability Information System)

<http://www.epa.gov/superfund/index.htm>

Materials Sources

FHWA Contract Administration Core Curriculum Participant's Manual and Reference Guide

<http://www.fhwa.dot.gov/programadmin/contracts/coretoc.cfm>

National Environmental Policy Act

Council on Environmental Quality

<http://www.whitehouse.gov/administration/eop/ceq>

EPA Compliance and Enforcement

<http://www.epa.gov/compliance/index.html>

AASHTO Practitioner's Handbook, Maintaining a Project File and Preparing an Administrative Record for a NEPA Study

<http://www.environment.fhwa.dot.gov/projdev/pd4document.asp>

Visual Resources

Bureau of Land Management Visual Resource Contrast Rating (BLM Handbook 8431-1)

http://www.blm.gov/wo/st/en/prog/Recreation/recreation_national/RMS/2.html

FHWA Visual Impact Assessment for Highway Projects (Publication No. FHWA-HI-888-054)

www.dot.ca.gov/ser/downloads/visual/FHWAVisualImpactAssmt.pdf

U.S. Forest Service Landscape Aesthetics: A Handbook for Scenery Management (Agricultural Handbook No. 701)

<http://naldc.nal.usda.gov/catalog/CAT11132970>

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CHAPTER 10

Right-of-Way Clearances

Introduction

This chapter provides an overview of the ROW clearance process for federally funded LPA transportation projects. The ADOT ROW clearance processes are explained for two types of projects: those that occur entirely within LPA ROW or on LPA-owned property and those that require new or additional ROW. Applicable regulations, roles and responsibilities, issue resolution, financial considerations, and recordkeeping and reporting are also discussed.

LPAs are required to follow all applicable ADOT and FHWA laws, regulations, and requirements for project activities that receive federal-aid funds. LPAs must follow the procedures included in this chapter if federal-aid funds are used for any part of the LPA project, whether or not those funds are used for ROW activities. ADOT provides ROW clearance for all projects except Certification Acceptance projects; certified LPAs conduct their own ROW clearance but may contact ADOT for assistance if needed. Self-administration of ROW clearance is not currently allowed.

ADOT Right of Way Group

The ADOT ROW Group oversees the ROW process and clearances for LPA projects. The ROW Group is divided into eight sections, each of which plays an important role in addressing ROW issues:

- ▶ The **Administration Section** is responsible for all matters relating to the administration and management of the ROW Program, including the administration and management of the Relocation Assistance Program.
- ▶ The **Operations Section** is responsible for obtaining authorization and approval for all federal funds on ROW projects and monitors ROW activities on all projects.
- ▶ The **Titles Section** prepares title reports and examines real property records, gathers and prepares data for the Attorney General's Office for condemnation proceedings, institutes necessary actions in the appropriate superior court, and provides title-related research and opinions for litigation.
- ▶ The **Property Management Section** inventories all ADOT-owned land, deals in all matters relating to the management and disposal of ADOT-owned excess real property, and is responsible for leasing acquired property.

- ▶ The **Plans Section** designs, prepares, and reviews ROW plans and prepares exhibits for use in condemnation actions.
- ▶ The **Acquisitions Section** is responsible for all property acquisition and relocation assistance functions. It is divided into two units, **Statewide** and **Urban**. The Statewide Acquisitions Section serves the entire state of Arizona—with the exception of the Phoenix and Tucson metropolitan areas, which are served by the Urban Acquisitions Section. Both sections obtain land and property rights by fee, easement, license, entry, or permit; contact property owners to explain projects and offers from the State; perform reviews of acquisition packages; present acquisition packages to the ROW Group Administration Section for approval and forwarding to the ADOT Director for final action; and maintain records of acquisition transactions.
- ▶ The **Project Management Section** coordinates and schedules project activities for ROW acquisition, coordinates clearing of construction projects relative to ROW requirements, performs appraisals and advanced acquisitions, and operates the Local Agency Assistance Program.

Local Agency Assistance Program

FHWA requires ADOT to adhere to federal rules and regulations in the administration of federal-aid projects. The LPA must also abide by these rules and regulations, which can be complex and require training that is not practical for LPA personnel to obtain. Additionally, ADOT recognizes that it has a responsibility to assist the LPA in maximizing available federal-aid funds for qualifying transportation projects. To help meet these obligations, the ROW Group's Project Management Section administers a Local Agency Assistance Program. Through this program, ADOT provides guidance for the LPA to accomplish project ROW requirements and achieve ROW clearances. The program also seeks to build the capacity of the LPA to administer its own ROW program that complies with federal and state standards.



The local agency liaison in the ADOT ROW Group Administration Section is a valuable resource to LPAs. The local agency liaison maintains communication with other ADOT divisions and is available to assist LPAs throughout the ROW acquisition process.

One of the most valuable resources of the Local Agency Assistance Program is the ROW Group's local agency liaison, since this individual maintains communication with other ADOT divisions and stays informed of all major project developments and progress throughout the duration of the project.

The ROW local agency liaison performs a variety of valuable functions to assist the LPA on federal-aid projects, including:

- ▶ Assisting the LPA in planning and providing guidance on ROW acquisitions in compliance with applicable federal and state laws, procedures, and regulations
- ▶ Monitoring all stages of ROW acquisition by the LPA, including appraisal, negotiation, and relocation, to ensure compliance with federal requirements
- ▶ Providing preliminary information to the LPA regarding the use of federal funds and applicable federal and state laws and regulations

- ▶ Explaining procedures for compliance certification and project monitoring
- ▶ Coordinating the training of LPA personnel in ROW issues
- ▶ Conducting introductory meetings to review regulatory material and applicable ADOT manual sections and forms, establishing the monitoring schedule, scheduling progress meetings and delivery of status reports, and establishing milestones for consultant evaluations
- ▶ Informing the LPA of procedures to achieve qualification of ROW personnel and required information for ROW clearance

Overview of Right-of-Way Clearance Process

Before advertising for construction bids for the project, the LPA must complete the ROW clearance process. To obtain ROW clearance, LPAs must prepare ROW plans, conduct appraisal and acquisition activities if necessary, and complete the ADOT ROW Certification form to document that property and ROW issues have been adequately addressed. The ROW Certification form states that the properties needed for construction of the project have been obtained, that the properties do not contain any utilities or structures requiring relocation, and that any people or businesses displaced by the project have been relocated. Essentially, the form must include a statement that the LPA has complied with state and federal ROW requirements and that the project is ready for construction. For ADOT-administered projects, the ROW Group will review the ROW Certification form and prepare a ROW clearance memo. For Certification Acceptance projects, LPAs will provide their own ROW clearance. Refer to the Resources list at the end of this chapter for a link to the ROW Certification form.

Many LPA projects occur entirely within LPA ROW or on LPA-owned property, and ROW clearance is easily obtained. However, some projects require new or additional ROW that entails acquiring property or obtaining lease agreements. The LPA and ADOT are required to ensure that the acquisition of property is conducted in compliance with state and federal requirements. ROW may be obtained through fee-simple purchase of property, purchase of an easement, or lease of temporary construction easements. Federal-aid funds cannot be authorized for construction until the project receives ROW clearance.

Timeline

Potential ROW needs are first assessed during the planning/programming phase; ROW clearance occurs during the development/design phase. For ADOT-administered projects, LPAs must prepare the PA or other scoping document and submit it to the ROW Group's Project Management Section for review and comment. The Project Management Section's receipt of the PA or other scoping document triggers the beginning of ADOT's ROW clearance process.

The next step occurs during the environmental clearance process, when the LPA must prepare a ROW plan that indicates all the properties required to construct and maintain the transportation project, including temporary construction easements. To develop a ROW plan, the LPA must assess ROW ownership and title data and determine the amount of lead time and certification required. If new ROW is needed, the ROW plan must also contain data essential for appraisal and negotiation activities, a relocation plan, and information needed to prepare legal descriptions of the properties to be acquired.



LPAs with federally funded projects, should be aware of the following requirements for ROW clearance activities:

- When an LPA loses a ROW employee, they **MUST** notify the ADOT ROW Liaison.
- When an LPA hires a new ROW employee, they **MUST** be approved by the ADOT ROW Liaison.
- LPAs that do not have their own ROW staff **MUST** use a qualified ROW consulting company (ADOT ROW approval is necessary).
- If any LPA uses an administrative settlement, they **MUST** have it approved by the ADOT ROW Liaison.
- All memorandums of understanding and rights of entry **MUST** first be approved by the ADOT ROW Liaison.
- All projects that have “dedicated” property in the ROW **MUST** provide maps showing the dedication (hash marked or colored in), along with the city/county ordinance that allows the dedication, to the ADOT ROW Liaison.
- All LPAs **MUST** be able to locate their project files by the ADOT TRACS number or have a cross guide to locate them.
- For every parcel, the LPA **MUST** have a comprehensive record (log/diary) of all conversations (telephone or person to person) and interactions with the property owners. The records must include the date of the interaction, the identity of all participants, what was said or asked, and the outcome of the interaction.



Once all required clearances have been obtained, including ROW, environmental, utility, and railroad clearances, the LPA can advertise for bids. Only in some limited circumstances (if the project will not adversely affect any owners or occupants, nor impede the construction contractors' activities), the LPA may be approved to proceed with advertising for construction bids with a conditional ROW clearance. Refer to the Advertisement, Bidding, and Award section in Chapter 13, Construction, and Chapter 18, Contracting, Consultant Selection, and Procurement, for more information on the bid process.

No New Right-of-Way Needed

If the project does not require any new ROW, the LPA can seek ROW clearance after a ROW plan has been developed and 95% design plans have been completed. To obtain ROW clearance for ADOT-administered projects when no new ROW is needed, the LPA must submit to the ADOT project manager a ROW clearance package consisting of the following documents:

- Original completed ROW Certification form
- Environmental clearance, utility clearance, and materials report clearance
- Date of any ROW previously acquired and the means of acquisition
- Copy of 95% design plans (Stage IV) or 100% PS&Es (Stage V) (When no new ROW is required, the ROW Certification form and ROW clearance memo can be generated at Stage IV design.)

New Right-of-Way Needed

If new or additional ROW is required for the project, additional coordination with the ROW Group is required. To obtain ROW clearance on ADOT-administered projects, ADOT's ROW Certification form must be completed and approved by the ROW Group. For ADOT-administered projects, LPAs must complete the ROW Certification form and send copies of all ROW documents to the ROW local agency liaison for review and approval. Upon approval of the ROW Certification form, the ROW local agency liaison prepares a ROW clearance memo for the project files. Certified LPAs complete the ROW Certification form to document that property and ROW issues have been adequately addressed, but they do not require approval from ADOT.

As previously stated, the ROW plan must indicate all the current and new properties required for the project; data essential for appraisal and negotiation activities; a relocation plan; and information needed to prepare legal descriptions of the properties to be acquired, including a parcel inventory, listing of ownership, and the area to be acquired. ADOT's ROW Certification form must then be completed, and the appraisal and acquisition process described in the next section must be followed.



If federal-aid funds are being used for design or ROW acquisition, the ROW appraisal and acquisition process cannot be initiated until after environmental clearances have been obtained, public hearing requirements have been satisfied, and the LPA has received a formal authorization to proceed from FHWA and ADOT. Property owners should not be contacted until the environmental process has been completed.

Appraisal and Acquisition Process

If the project requires acquisition of new or additional ROW, the LPA must follow the appraisal and acquisition process (Figure 10-1). As part of this process, written notice (i.e., a brochure) that describes the acquisition policy under state and federal laws and that defines the property owner's rights, obligations, and privileges under those laws must be provided to affected property owners. For ADOT-administered projects, the LPA conducts appraisal and acquisition activities and the ROW local agency liaison oversees the acquisition process for all real property and real property rights. For Certification Acceptance projects, the ROW local agency liaison is available to assist the LPA with the appraisal and acquisition process, if needed.

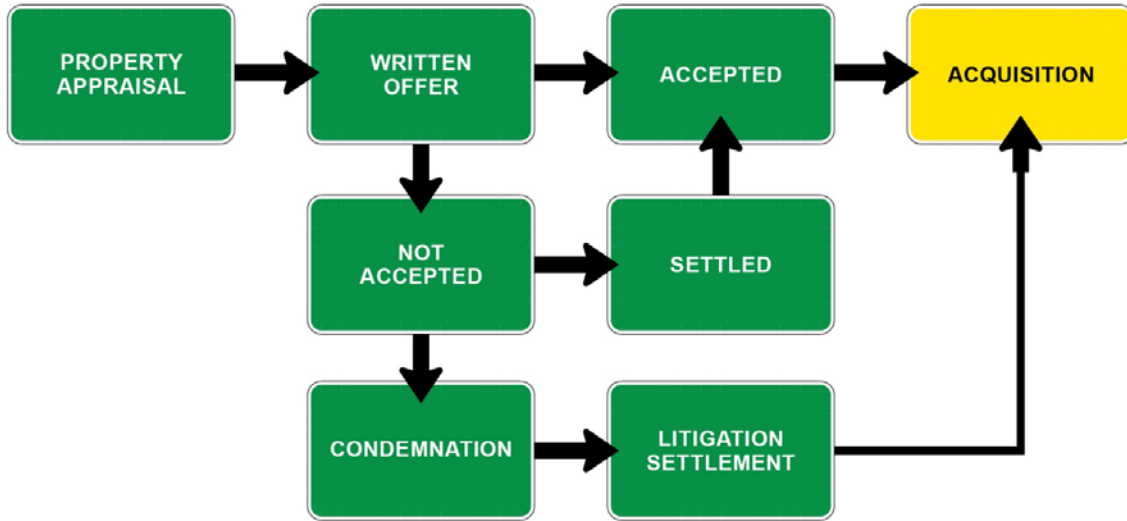


Figure 10-1 ROW Appraisal and Acquisition Process

If the project requires new or additional ROW on private land, an easement may be obtained (if conditions are appropriate), property may be donated, or the property may be appraised in preparation for making a written offer for the property.



If a property owner wishes to donate property, the LPA must provide the property owner with the prepared notification brochure that explains the owner’s right to receive compensation for the property, as well as the right to receive compensation and/or an appraisal for the property. The LPA must obtain a signed and notarized waiver acknowledging that the owner has been informed of these rights.

If the new or additional ROW occurs on tribal or public land, approval must be obtained from the applicable tribe or agency to construct the project. A joint project agreement or an IGA can fulfill this function. Refer to the Tribal, State, and Federal Lands section in this chapter for more information on acquiring tribal or public land.



All property acquisition activities must be carried out in conformance with all federal and state ROW regulations, as well as with Title VI of the Civil Rights Act of 1964.

Appraisals

A property appraisal must be conducted for all parcels to be acquired, unless the market value is less than \$10,000 and acquisition is not anticipated to be complicated. For parcels with an appraisal value less than

\$500,000, one appraisal is required; for individual parcels with values greater than \$500,000, a minimum of two appraisals are necessary. The appraiser must be qualified to work for projects receiving federal-aid funds. The ROW local agency liaison can be contacted for a list of certified appraisers who understand federal appraisal requirements for federal-aid highway projects. The appraiser must be provided with ROW plans, the legal description of the property, and any title reports.

Appraisal Review

Appraisals for each parcel must be examined by an approved review appraiser to ensure that they meet appraisal requirements. The review appraiser’s certification and the recommended or approved value of the property should be provided in a signed written statement that identifies the appraisal reports reviewed and explains the basis for the appraiser’s recommendation. For ADOT-administered projects, the appraisal must be approved by ADOT before presenting a written offer to a property owner.

Written Offer Provided

The LPA next presents the property owner with a written offer, along with a “just compensation” memo and a summary statement. The offer must be presented in writing and must conform to content requirements specified in 23 CFR 710, Right-of-Way and Real Estate. The prepared information brochure must accompany the written offer. The LPA must also provide the property owner with a Notice of Relocation Eligibility in writing at the initiation of acquisition to inform affected parties of their right to relocation assistance (for more information, see the Relocation Process section of this chapter). Once the written offer is accepted and the acquisition documents have been signed by the accepting party, an appropriate title company should be contacted.



Property owners must be allowed a minimum of 30 days to consider written offers.

Relocation Process

If acquisitions impact businesses, individuals, or personal property, relocation assistance must be provided to the affected parties. The LPA is required to pay for relocation of personal property within newly acquired ROW. All occupants *must be provided a minimum of 90 days* to relocate, and residential occupants must be presented with one available comparable dwelling at the time of the 90-day notice. The LPA can request reimbursement for these relocation costs if federal authorization to proceed has been granted before beginning ROW activities.



All occupants must be provided with a minimum of 90 days to relocate from the date that comparable housing is available.

Property Management

A property management plan must be prepared that outlines provisions for maintenance, protection, and illegal occupancy. The plan should address the disposal of unneeded property, excess ROW, and structures to be salvaged, if appropriate. The ROW local agency liaison may be contacted for more information on the property management plan.

Request for Right-of-Way Clearance

Upon completing the acquisition of all required parcels for ADOT-administered projects, the LPA may request ROW clearance by submitting to ADOT a clearance package that includes:

- ▶ Completed and signed ROW Certification form
- ▶ Environmental clearance date
- ▶ FHWA authorization-to-proceed date
- ▶ Approved PS&Es with the new ROW highlighted
- ▶ Any other ROW documentation, if requested by the ROW local agency liaison

The ROW local agency liaison is responsible for preparing the ROW clearance memo.



For projects requiring new ROW, LPAs must have approved PS&Es before requesting ROW clearance.

Right-of-Way Acquisition on Federal, State, and Tribal Lands

The process of acquiring public lands varies depending on whether the lands are administered by BLM, USFS, or any other federal public land-managing agency, administered by the State, or are tribal. The following information provides a brief overview of the process of acquiring federal, state, or tribal land for ROW. More detailed information is available in Chapter 3 of the ADOT *Right of Way Procedures Manual: Urban and Statewide Acquisition Sections* (see the Resources list at the end of this chapter for a link to that manual).

Federal Land

If the project involves BLM land, the ROW Group will determine whether the current memorandum of understanding is applicable. The ROW Group must determine mining claims, utilities, and other interests and then complete appropriate NEPA documentation. ADOT will then send notification to the FHWA realty officer to request concurrence that the BLM-managed lands are necessary for the project. Following FHWA concurrence, ADOT will submit a formal Request for Appropriation directly to the BLM field office. Within 30 days, the BLM project manager will issue a Letter of Consent. ADOT will then record the easement in the appropriate county and submit a copy of the recorded deed to the BLM project manager and the FHWA realty officer.

If the project involves USFS land, ADOT will initiate a contact report. Following the USFS easement process, a highway easement deed is prepared by ADOT and submitted to FHWA for execution. If the required property is on U.S. Bureau of Reclamation land, the Bureau of Reclamation will prepare and furnish a conditional sales agreement to ADOT. Payment for the parcel will then be sent to the Bureau of Reclamation, who will furnish a quitclaim deed for the property.

The ROW Group's Acquisitions Section will process applications for easement deeds for other public lands according to the requirements of the appropriate public agency. All acquisition packages will be submitted to the ROW Group's Statewide or Urban Acquisitions Section.

State Land

If needed ROW occurs on state land (such as State Trust land), a ROW application must be submitted to the Arizona State Land Department with payment of the application fee. The Arizona State Land Department will review the application and issue a Notice of Appraisal and Waiver to Appeal (usually within 5 to 6 months), which may include special conditions for compliance.



CALENDAR WATCH

If needed ROW occurs on state land, the Arizona State Land Department application and approval process can take 5 to 6 months.

Tribal Land

Using tribal land for ROW requires the consent of the applicable tribal council and may require approval from BIA. Projects requiring new ROW or an easement on tribal land typically require that an EA be prepared according to BIA guidelines. The typical time frame for completing an EA is 12 to 24 months. However, requirements and expected time frames may vary between tribes.



CALENDAR WATCH

Projects on tribal and federal lands may trigger additional permitting requirements under NEPA. If needed, the typical time frame for completing an EA is 12 to 24 months. Refer to Chapter 9, Environmental Clearances, for more information on NEPA requirements.

Uniform Act

Title 42 USC Chapter 61, Uniform Relocation Assistance and Real Property Acquisition Policies Act for Federal and Federally Assisted Programs (Uniform Act), as amended, is the primary law for acquisition and relocation activities on federal or federally assisted projects and programs. The Uniform Act provides assistance and protection to people affected by federally funded projects. The law protects individuals and groups whose real

property is acquired or who are displaced as a result of projects that receive federal funds. The Uniform Act requires fair and equitable treatment, as well as the provision of relocation assistance, to affected individuals or groups. Other federal laws governing public project and program activities include Title 23 USC, Highways; Title 49 USC, Transportation; 23 CFR 710; and 49 CFR 24.

The Uniform Act applies to all projects receiving federal funds or federal financial assistance in which real property is acquired or people are displaced as a result of acquisition, demolition, or rehabilitation. Anyone connected with the process of acquiring real property for federally assisted projects should be familiar with its provisions. For a link to the full text of the Uniform Act, refer to the Resources list at the end of this chapter.

Monitoring

Through monitoring, ADOT ensures that LPAs and their consultants conduct ROW practices in accordance with all ADOT policies and procedures, including federal and state regulations, rules, and laws. It is ADOT policy to monitor all LPAs projects when federal funds are included in any phase of a project. The ROW local agency liaison monitors the LPAs' ROW acquisition on all federal-aid projects, including all stages of planning, appraisal, negotiation, acquisition, and relocation, to ensure to the greatest extent possible that such projects conform to federal requirements.

Functional areas to be monitored include but are not limited to the following:

- ROW planning
- ROW survey and delineation
- ROW plans
- Appraisal and appraisal review
- Acquisition
- Administrative settlements
- Relocation planning and relocation
- Property management
- ROW certification

Monitoring will ensure that the LPAs and their consultants have sufficient time to take corrective action, if necessary. All monitoring will continue until all rights in the property are obtained.

Number of Parcels to be Monitored

The number of parcels monitored on an LPA project will be determined by the ROW local agency liaison. The number of parcels to be monitored will be based on the LPA's record and the initial evaluation of the ROW local agency liaison. Depending on the review, the amount of monitoring required may increase or decrease.

Degree of Monitoring

Monitoring will be sufficient to ensure that the overall federal and state procedures are met. Monitoring may be based on conformance to the procedures submitted by an LPA when requesting to administer the ROW clearance process.

Monitoring by Function

The ROW local agency liaison's review will be on a continuous basis to ensure that each ROW function is performed properly. This will ensure that the LPA or consultant will have sufficient time to take corrective action at the proper stage. The review will include an examination of all major functions involved in the ROW acquisition/relocation. The primary emphasis of this monitoring will involve plans, appraisal, acquisition, and relocation assistance.

Monitoring Documentation

A compliance check sheet, relating to the specific ROW function being monitored, will be completed for each parcel selected for review. Information on any work requiring correction will be communicated in writing to the LPA with follow-up procedures to ensure that the correction has been accomplished.

Audit of LPAs and Consultants

Auditing of LPAs and their consultants will be completed by the ROW local agency liaison. Anomalies discovered during an audit are the responsibility of the LPA, regardless of any agreement between the LPA and its consultant.

ADOT-Administered Projects

For ADOT-administered projects, LPAs should follow the ROW clearance process previously described in this chapter. LPAs must prepare the ROW plan and submit it to the ROW Group for review and approval. LPAs are responsible for administering appraisal and acquisition activities (if needed), for ensuring that ROW activities are completed according to federal and state requirements, and for preparing the ROW Certification form. ADOT provides oversight and support during the process, reviews the ROW documentation, and provides the ROW clearance memo. MPOs and COGs do not play a role in ROW clearances for LPA projects and therefore are not included in Table 10-1 in the Roles and Responsibilities section.

A list of items that the LPA must submit to the ADOT ROW Group for ROW clearance is provided in the ADOT Right-of-Way Submittal Checklist (see Attachment 10-1 at the end of this chapter).



Self-administration of ROW clearance is not currently allowed. ADOT will administer ROW clearance for all projects except Certification Acceptance projects.

Certification Acceptance Projects

Certified LPAs are responsible for preparing the ROW plan, administering appraisal and acquisition activities (if needed), and preparing the ROW Certification form (Table 10-2). Since certified LPAs clear ROW for their projects, they are responsible for preparing a ROW clearance memo for the project files. However, the ROW clearance package and clearance memo must be submitted to the ADOT project manager for verification.



The ROW clearance memo must be completed and submitted to the ADOT project manager before requesting project funding for construction.

Issue Resolution

Escalation Process

Conflicts Originating between the LPA and Right of Way Group

No formal escalation process is in place for the resolution of ROW conflicts that arise between the LPA and the ROW Group; however, if conflicts arise that cannot be resolved through coordination and negotiation between the LPA and the ROW local agency liaison, the ADOT project manager should be contacted.

Other Conflicts

During the ROW process, a variety of issues may arise because the relocation of individuals, groups, or businesses can be a sensitive process and parties may be greatly affected by displacement. In some cases, eligibility for payments or amount of offered payments may not be considered satisfactory by affected parties. Additionally, ADOT/LPA negotiations with a property owner can break down, resulting in the need for property acquisition using eminent domain.

Relocation Plan

Problems may arise from the displacement of individuals and others, as noted above, through ROW acquisition. Relocation planning early in the project life cycle can result in the development of solutions that minimize adverse impacts resulting from displacement and that help to reduce escalation in the ROW process. Federal law requires a relocation plan, which, at a minimum, should contain:

- ▶ An estimate of the number of households subject to displacement and an estimate of the number of comparable replacement dwellings in the area
- ▶ An estimate of the number, types, and sizes of businesses, farms, and nonprofit organizations subject to displacement and an estimate of the number of available replacement sites for businesses
- ▶ The number of employees potentially affected by displacement

- ▶ Planning for the displacement of businesses that may involve complex or lengthy moving processes or for small businesses that have limited financial resources or few alternative relocation sites
- ▶ Relocation advisory services

Refer to the ADOT *Right of Way Procedures Manual: Urban and Statewide Acquisition Sections* for more information on the development of a relocation plan and for guidance on the displacement of parties affected by ROW acquisition.

Appeals

Issues may also arise if individuals, groups, or businesses feel that their eligibility for a relocation payment (or lack thereof) or the amount of an offered relocation payment is unsatisfactory. In these cases, affected parties may seek redress through the appeals process. The ROW Group's Acquisitions Section is responsible for ensuring that the affected party is notified of the final decision in writing (by certified mail) and will advise the party of their right to a judicial review, if they are dissatisfied with the decision. Refer to the *ADOT Right of Way Procedures Manual: Urban and Statewide Acquisition Sections* for more information on the appeals process.

Condemnation

If ADOT/LPA negotiations with a property owner break down, possibly due to a property value or title issue, the result may be condemnation. Condemnation is the legal process by which a governmental body, such as ADOT, exercises its right of eminent domain to appropriate private property for public good. The condemnation process begins as issues escalate during the ROW process and results in resolution of title, value issues, or both through the judicial process. Eminent domain laws are defined in ARS 12-111 and ARS 28-7091 through 28-7103. Refer to the *ADOT Right of Way Procedures Manual: Urban and Statewide Acquisition Sections* for more information regarding the condemnation process and procedures.

Financial Considerations

All requests for authorization of federal-aid funds for ROW acquisition costs must be submitted to the ROW local agency liaison. The request should include the cost for the ROW acquisition work, the federal-aid pro rata share, and the local matching share of the project cost. ADOT will request authorization of federal-aid funds and execute a project agreement with FHWA for ROW project costs on the LPA's behalf. A copy of the request and project agreement will be transmitted to the LPA. LPAs should submit all requests for reimbursement of ROW and other eligible federal-aid costs to ADOT using ADOT's standard payment forms.



Any work conducted before the federal authorization effective date will not be eligible for reimbursement of federal-aid funds.

Recordkeeping and Reporting

Files for each parcel acquired for ROW should be maintained in separate folders. Contents of files should include copies of the following items:

- ▶ Appraisals of the parcel
- ▶ Appraisal review with conclusion of value (dated and signed)
- ▶ Just-compensation summary statement and the amount believed to be the just compensation (signed by the LPA's authorized property acquisition official)
- ▶ Negotiator's diary or contact report summarizing all actions regarding the parcel
- ▶ All correspondence
- ▶ Original signed donation waiver for any parcel obtained by donation
- ▶ Any administrative settlements, with a memo of justification
- ▶ Documentation for any purchased parcels:
 - Copy of the appraisal
 - Copy of the offer letter
 - Copy of the deed or other instrument
- ▶ All condemnation proceedings and associated correspondence
- ▶ Documentation for any relocations:
 - All letters and notices to property owner
 - Eligibility Determination Worksheet
 - Moving estimate and moving documents
 - All final documents concerning move
 - Property vacate date

ROW records must be kept for 5 years following FHWA closeout of the project in the FMIS.

Roles and Responsibilities

The fundamental responsibility of the LPA is to perform ROW activities that conform to federal and state laws and regulations. The primary role of ADOT is to assist the LPA with the ROW process, including property acquisition, on federally funded projects. The primary role of FHWA in the ROW process is to provide final authorization of ROW activities on NHS projects. Specific roles and responsibilities for achieving ROW clearance will vary depending on the nature of the project and whether it is an ADOT-administered or Certification Acceptance project. General roles and responsibilities of the LPA, the ADOT ROW Group, and FHWA for different project types are provided in Table 10-1 and Table 10-2.

Table 10-1 Roles and Responsibilities for Right-of-Way Clearances—ADOT-Administered Projects

Task	LPA	ADOT	FHWA
Authorization for ROW activities	Coordinate with ADOT to request and secure authorization to proceed from FHWA	Coordinate with LPA to request and secure authorization to proceed from FHWA	Provide authorization to proceed
Scoping document (e.g., PA, DCR)	Prepare and submit to the ADOT ROW Group Project Management Section	Review	N/A
ROW plans	Prepare and submit to ROW Group for review	Review	N/A
Appraisal, acquisition, and relocation activities, if needed	Administer in compliance with federal laws, regulations, and requirements; obtain ADOT approval for acquisitions	Provide support as needed; monitor for compliance	Provide oversight, if requested; assist in the process to acquire federal land
ROW Certification form	Prepare and submit to ROW Group for non-NHS projects and to FHWA for NHS projects	Review and approve for non-NHS projects	Review and approve for NHS projects
ROW clearance memo	N/A	Prepare ROW clearance memo upon approval of the ROW Certification form; submit to FHWA for NHS projects; forward to the ADOT project manager	Review and approve for NHS projects

Table 10-2 Roles and Responsibilities for Right-of-Way Clearances—Certification Acceptance Projects

Task	LPA	ADOT	FHWA
Authorization for ROW activities	Coordinate with ADOT to request and secure authorization to proceed from FHWA	Coordinate with LPA to request and secure authorization to proceed from FHWA	Provide authorization to proceed
Scoping document (e.g., PA, DCR)	Prepare	N/A	N/A
ROW plans	Prepare	N/A	N/A
Appraisal, acquisition, and relocation activities, if needed	Administer in compliance with federal laws, regulations, and requirements	Provide support as needed	Provide oversight, if requested; assist in the process to acquire federal land
ROW Certification form	Prepare; submit to FHWA for NHS projects	N/A	Review and approve for NHS projects
ROW clearance memo	Prepare; submit to FHWA for NHS projects; forward to the ADOT project manager	Review	Review and approve for NHS projects

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RESOURCES

ADOT Right of Way Group Website

http://www.azdot.gov/business/RightofWay_Properties

ADOT Right of Way Procedures Manual: Urban and Statewide Acquisition Sections

http://www.azdot.gov/business/RightofWay_Properties/booklets-and-manuals

ADOT Right of Way Certification Memo

<http://www.azdot.gov/docs/business/sample-right-of-way-certification-documents.pdf?sfvrsn=0>

ADOT Right of Way Clearance Process Overview

<http://www.azdot.gov/docs/business/right-of-way-process-overview.pdf?sfvrsn=0>

Uniform Relocation Assistance and Real Property Acquisition Policies Act for Federal and Federally Assisted Programs (42 USC 61)

<http://www.fhwa.dot.gov/realestate/ua/index.htm>

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ATTACHMENT 10-1

ADOT RIGHT-OF-WAY SUBMITTAL CHECKLIST

NEW RIGHT-OF-WAY

If new right-of-way (ROW) is required, the LPA must submit the following documents to the ADOT Right of Way Group:

- Proof of Environmental Clearance (date only)
- Authorization to Proceed (Form AZPR2X from FHWA) (date only)
- Original completed and signed ROW Certification form
- Copy of appraisal and re-appraisal (if applicable)
- Copy of appraisal review slip, any comments, and conclusion of value
- Copy of the just-compensation summary statement and the amount signed by the authorized person
- Copies of signed offer letters
- Copies of summary statements
- Copies of approved 100% plans, specifications, and estimates (PS&Es) with new ROW highlighted
- Copy of agents' contact log/diary (signed by agents)
- Copy of emails sent and received
- Copy of all correspondence from property owners
- Copy of Waiver of Compensation if used and justification for them
- Copy of any administrative settlements and justification/documentation in a written memorandum to the acquisition file
- Copy of all conveying instruments/easements of any kind
- Copy of any condemnation proceedings and all correspondence to property owner in conjunction with condemnation, copies of the "Order to Show Cause" and "Order of Immediate Possession" and the "Judgment"
- If relocation is involved, the following information must also be submitted to ADOT:
 - Copy of all letters, e-mails, and correspondence with property owners
 - Copy of the Eligibility Determination Worksheet
 - Copy of the moving estimates, self-move paperwork, or both
 - Copy of all final paperwork concerning the move
 - Property vacate date

NO NEW RIGHT-OF-WAY

If no new ROW is required, the LPA must submit the following to the ROW Group:

- Proof of Environmental Clearance (date only)
- Authorization to Proceed (Form AZPR2X from FHWA) (date only)
- Original completed and signed ROW Certification form
- Copy of Stage IV (95%) design plans (or newer)
- Date of any ROW previously acquired and the means of acquisition (i.e. donations, dedications, or by purchase)
- Copy of ROW clearance memo



CHAPTER 11

Utility and Railroad Coordination

Introduction

This chapter provides an overview of utility and railroad coordination and clearance processes as they relate to LPA transportation projects in Arizona. The eight-step coordination process for utility and railroad clearances is explained, as well as utility and agency coordination and the roles and responsibilities of LPAs during this process. Issue resolution, financial considerations, and recordkeeping and reporting are also discussed.

Overview of Utility and Railroad Coordination Process

Many transportation projects include the modification or improvement of utility or railroad facilities. In the context of this manual, a *utility* is an entity that transmits or distributes communication, cable television, electricity, light, heat, gas, oil, crude products, water, sewer, waste, or any similar commodity that directly or indirectly serves the public. When either utilities or railroads are a component of the project, coordination begins early during development of the Stage I design plans and continues throughout the construction of the project. Utility and railroad clearances are typically obtained during the design phase of the project.

If utilities are present, utility involvement can range from simply marking facility locations within the project area to relocating facilities due to conflicts with the proposed project. Clearances that must be obtained when utilities or railroads are involved are handled by ADOT URR.

Utility and railroad coordination is an eight-step process that corresponds with the five stages of the project development/design phase (Figure 11-1). This eight-step process involves identifying and coordinating with affected utility companies to avoid or address utility conflicts and completing several documents, including a utility report and utility special provisions, a utility agreement (if required), and a draft utility clearance letter. Guidance for preparing utility clearances is provided online in URR's procedural guide *Utility Coordination Guide for Design Consultants* (see the Resources list at the end of this chapter for a link to that document). The LPA must comply with the URR Stage Submittal Checklist, which can be found in Appendix 1 of the *Utility Coordination Guide for Design Consultants*; the checklist will be filled out by URR at each stage submittal.

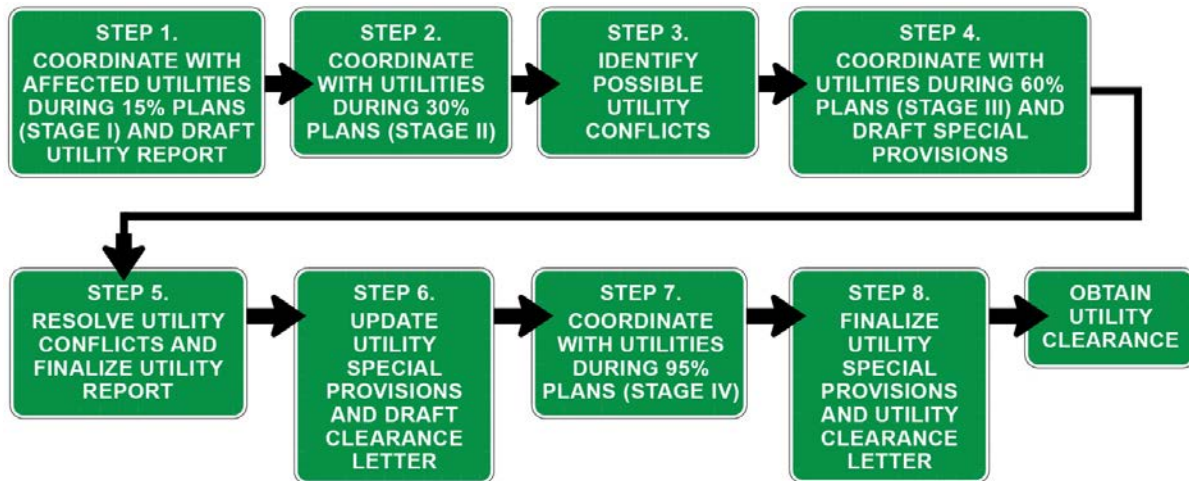


Figure 11-1 Utility/Railroad Coordination Process Flowchart

Any project that lies within the ROW of a federal-aid or a direct federal highway project and involves either the installation of new utilities or the retention, relocation, or adjustment of existing utilities must follow FHWA guidelines contained in 23 CFR 645, Utilities. FHWA delegates authority to ADOT (i.e., URR) to enforce the utility clearance guidelines, but FHWA reviews and approves ADOT’s policies and procedures. Refer to the FHWA Utilities Program website and Program Guide for Utility Relocation and Accommodation on Federal-Aid Highway Projects website for more information (see the Resources list at the end of this chapter).

Other policies and procedures regarding utilities and railroads may apply depending on the location and jurisdiction of the proposed project (e.g., Maricopa County Department of Transportation), and should be considered by the LPA during the utility/railroad coordination process.

ADOT Utility and Railroad Section

ADOT URR plays an important role in coordinating utility and railroad clearances for an LPA. URR has two primary responsibilities: (1) to administer the federally funded Railroad/Highway Crossing Improvement Program and (2) to ensure that no unexpected delays or expenses resulting from conflicts with utility or railroad facilities occur during construction.

URR consists of four subsections:

- Statewide Utility/Railroad Coordination
- Regional Freeway Program Utility/Railroad Coordination
- Federal Railroad/Highway Crossing Improvement Program Administration
- Utility Company Invoicing, Accounting, and Administrative and Technical Support

The Statewide Utility/Railroad Coordination subsection and the Regional Freeway Program Utility/Railroad Coordination subsection ensure that no unexpected utility-related delays or expenses occur during highway construction. The purpose of the Federal Railroad/Highway Crossing Improvement Program is to improve safety at public crossings within Arizona. The ADOT URR accountant ensures that utility-related invoices are processed

in an accurate and timely manner, as well as requests audits to ensure that funds have been handled appropriately.

Within the URR subsections other support activities are performed. These include:

- ▶ Local Government and TE Program coordination
- ▶ Railroad Coordination and Railroad Safety Program
- ▶ Utility agreement compliance
- ▶ SUE (potholing services)
- ▶ Cost reimbursement and recovery
- ▶ Pavement management projects
- ▶ Invoice review and processing

Utility Clearance Certification

URR’s role regarding highway construction projects is directed toward one goal: the production of a utility clearance certification letter. This letter certifies that all railroad and utility-related concerns have been addressed. URR also verifies that project plans and specifications contain all the information needed by state and contractor forces to address problems involving utility and railroad facilities. An approved utility clearance certification letter is required before the project can be advertised for bid.

Utility and Railroad Coordination Timeline

Utility and railroad coordination is accomplished in eight steps that correlate with Stages I through V of the development/design phase. These steps are summarized in Table 11-1 and described in detail in the next sections. Roles and responsibilities of all parties involved in the utility/railroad coordination process are discussed later in this chapter.

Table 11-1 Utility and Railroad Coordination Steps by Design Stage

Design Stage	Utility and Railroad Coordination Step
Stage I (15% plans)	Step 1—LPA prepares utility report and coordinates with railroad liaison.
Stage II (30% plans)	Step 2—LPA updates utility report. Step 3—LPA identifies utility conflicts.
Stage III (60% plans)	Step 4—LPA continues coordination and begins utility special provisions.
Stage IV (95% plans)	Step 5—LPA continues coordination and resolves utility conflicts. Step 6—LPA drafts utility clearance letter and utility special provisions. Step 7—LPA sends PS&Es package to utilities, railroads, and ADOT URR staff.
Stage V (100% PS&Es)	Step 8—LPA updates draft utility clearance letter and utility special provisions and then submits the letter and backup documentation to the ADOT project manager for review and certification of the utility clearance letter.

Stage I Design (15% Plans)

Step 1 of the utility/railroad coordination process starts immediately after the initiation of project design. During preparation of Stage I design plans, the LPA is responsible for identifying each utility company that has facilities

within the project limits, for establishing contact with the relevant utility companies, and for preparing a utility report. Information regarding the utilities in the project area can be obtained by reviewing permit logs maintained by ADOT, by calling Arizona Blue Stake, or by using a SUE consultant (also known as a locating or “potholing” consultant). Statewide utility permit logs by ADOT district are available online (see the Resources list at the end of this chapter). If a SUE consultant is being considered, the LPA should contact the project’s ADOT URR coordinator to initiate the process. Upon acceptance by URR, ADOT will cover the cost for the SUE consultant. For more information on locating utilities with or without a SUE consultant, refer to *URR’s Utility Coordination Guide for Design Consultants*.



Utilities that are within railroad ROW are not always listed in the Arizona Blue Stake database. Contact the Arizona Blue Stake One-Call Center for utility information (see Appendix A for contact information).

Within 30 days of receiving federal-aid authorization from FHWA, the LPA must provide URR with an initial draft utility report that contains a list of all utility companies in the project area and each company’s contact person. Guidelines and a template for preparing utility reports are available online at the URR website (see the Resources list at the end of this chapter).



LPA’s must submit an initial draft utility report to URR within 30 days of receiving federal-aid authorization.

The DCR or PA should be submitted to the applicable utility companies to obtain information regarding the utilities within the project area. To determine potential conflicts with utilities in the area, as-built plans with horizontal and vertical information should be obtained from the applicable utility companies. The as-built information should be incorporated into the Stage I plans.

When Stage I plans are complete, the LPA must send the plans to the relevant utilities to solicit comments. One set of the plans and a copy of each of the transmittal letters sent to the utilities must also be provided to URR.

If a railroad is within the project area, the LPA must request that URR make initial contact with the railroad company to obtain railroad information before the design kickoff meeting. The ADOT URR railroad liaison, rather than the LPA, will coordinate with the railroad company. If a railroad is involved, Stage I plans should also be sent to the URR railroad liaison. Note that FHWA requires an executed railroad agreement at the time of Stage V approval; URR will coordinate with the railroad companies to execute the agreement.



When a railroad is located within the project limits, the ADOT URR railroad liaison will coordinate with the railroad company.



CALENDAR WATCH

Obtaining a railroad agreement can be a lengthy process (approximately 2 years) and should be initiated as early as possible. Railroad activities are regulated by the Federal Railroad Administration and by the Arizona Corporation Commission.

Stage II Design (30% Plans)

Utility information is further refined in Step 2 of the utility/railroad coordination process, which occurs during Stage II design. At this point, the LPA updates the utility report to contain an initial utility cost evaluation for the relocation of utilities in conflict, as well as an identification of ROW necessary for utility relocations. When complete, the LPA must send Stage II plans to the utility companies to solicit comments. One set of the plans and a copy of each of the transmittal letters sent to the utilities must be provided to URR. If a railroad is involved, the plans should also be sent to the URR railroad liaison, who will coordinate with the railroad company.

Step 3 of the utility/railroad coordination process involves identifying all utility conflicts; this step occurs between Stage II and Stage III design. The information from the utility companies obtained in Step 2 should be added to the design plans and then compared with the project design. It may be appropriate to modify the roadway design to avoid conflicts. If avoidance is not practical, the relocation process is initiated, and a determination about whether the ROW is adequate should take place.

As part of the relocation process, URR will authorize the utility company to begin preliminary engineering design and will request prior-rights documents. It is the LPA's responsibility to review prior-rights materials to ensure that they represent the areas of the project where utility relocations may be required. This prior-rights information is then submitted to URR for review and verification. If the utility company has prior rights, then URR starts the utility agreement process to pay for relocation. Funding responsibility for utility relocation costs will be determined based on prior rights and the type of project (federal, state, local). Utility agreements are processed by URR, but the LPA may be requested by URR to assist, if necessary. If the utility company does not have prior rights, URR will notify the utility company to relocate at its own expense; a utility agreement will not be needed unless the utility company requests that ADOT's contractor complete the relocation.

During Step 3, the LPA must also evaluate the ROW width with respect to the proposed utility relocations. If the ROW is inadequate, the LPA must advise URR and the ADOT ROW Group. If ROW acquisition is required, the utility relocation work must be coordinated with the ROW process, as established by ADOT, to ensure that the utility relocation work will not delay the project's advertisement schedule. Finally, during this step, the LPA should

coordinate with all utilities in the project area to determine whether any betterment projects are desired, such as the installation of sleeves. These betterments could be completed during the construction of the project at the utility company's expense. Any requests that are identified must be relayed to the URR coordinator so that those requests can be discussed further and the utility agreement procedures can be planned.



The decision to include betterments or make utility adjustments must be determined and the initial cost estimates must be provided no later than the Stage III submittal date.

Stage III Design (60% Plans)

Step 4 of the utility/railroad coordination process occurs during the preparation of Stage III design plans. The LPA should continue to refine the utility information and begin drafting the utility special provisions. By the completion of Stage III plans, the updated utility report should include a listing of the parties responsible for relocation work payment, a listing of mitigation measures by utility, a summary of meetings held with each utility, pothole data that has been requested and provided, any betterment requests, and a preliminary estimate of costs for utility relocation. Stage III plans must be sent to the utilities along with identification of areas of change such as ROW, cut and fill, slope conditions, or any structure change that could affect the utilities' planned activities. One set of the plans and a copy of each transmittal letter sent to the utilities must be sent to URR. If railroads are involved, one copy of the plans and transmittal letter must also be provided to the URR railroad liaison, who will coordinate with the railroad company.

An initial draft of the utility special provisions must be submitted to URR for comment, review, and approval. The provisions should include a list of relevant utility companies, a description of any utility conflicts, and details regarding any work required due to those utility conflicts. For more information on requirements for the utility special provisions, see URR's *Utility Coordination Guide for Design Consultants*.

Stage IV Design (95% Plans)

Step 5 of the utility/railroad coordination process occurs during the preparation of Stage IV design plans. During this step, the LPA should coordinate with the utility companies and URR to fully define how utility conflicts will be resolved, including who is doing the work and who will pay for the work. At this time, the LPA must request relocation plans and schedules from all the utility companies that are being relocated, regardless of prior rights. This information is used by both the LPA and URR to ensure that the relocation plans are compatible with roadway design and construction sequencing and that the plans will not interfere with ADOT's schedule. The utility companies' relocation plans and schedules are also needed for preparation of the utility agreement. URR may request assistance from the LPA in obtaining relocation plans and cost estimates from the utility companies so that utility agreements can be processed by URR in a timely manner.

Once the utility agreement is executed, ROW has been acquired (if necessary), any environmental issues are resolved (see Chapter 9, Environmental Clearances, for more information), and FHWA federal-aid authorization is granted (if applicable), URR will issue an authorization letter to the utility company indicating that relocation

activities may begin. At this point, the LPA should call a meeting to coordinate with the affected utility companies to establish schedules and construction sequencing for relocation activities. This information is needed by the LPA to prepare the draft utility clearance letter and utility special provisions in subsequent steps. These documents will be forwarded to URR for review and approval.

At this time, the utility report is finalized and should include a notification of approval from URR that utility company relocation plans are in conformance with the project design and standard ADOT procedures and practices. The utility report must also include the construction schedule for each utility and a final cost estimate for each utility with approved prior rights, betterments, or both. In accordance with the law, ADOT does not cover betterment costs.

Step 6 also occurs during the preparation of Stage IV plans. In this step, the LPA drafts the utility clearance letter and utility special provisions and submits them to the URR coordinator and the ADOT project manager for review. Refer to Step 6 in the URR's *Utility Coordination Guide for Design Consultants* for more specific information on what to include in the utility special provisions and draft utility clearance letter.

During Step 7, Stage IV plans are sent by the LPA to the utility companies for review and comment. One set of the plans and copies of the transmittal letters sent to the utility companies must be sent to URR. If a railroad is within the project limits, an additional copy of the plans must be provided to the URR railroad liaison, who will coordinate with the railroad company.

Stage V Design (100% Plans, Specifications, and Estimates)

During Step 8, the LPA updates the utility special provisions and the utility clearance letter and then submits the letter and backup documentation to the ADOT project manager for review. URR will verify the information (i.e., certify the letter) and forward the utility clearance certification letter to ADOT C&S and any other appropriate parties. The utility clearance certification letter must be received by C&S along with the 100% PS&Es, before the project is advertised for bid (see the Advertisement, Bidding, and Award section in Chapter 13, Construction, and Chapter 18, Contracting, Consultant Selection, and Procurement, for more information on bid advertisement). Postclearance activities are handled by the LPA, in coordination with the ADOT district, URR, and utility companies. However, the URR's assistance may be called upon if conflicts arise during construction.

Utility and Agency Coordination

Utility Agreements

Utility agreements are needed between URR and each affected utility company if utility relocation is required. Either the utility company has prior rights or the utility company does not have prior rights but requests that ADOT's contractor complete the company's utility relocations. The utility agreement process may begin as soon as utility conflicts are identified and prior rights are determined. If a utility company has prior rights, then URR starts the utility agreement process to pay for relocation. The costs of relocation will have to be determined based on prior rights and project type. If the utility company does not have prior rights, URR will notify the utility company to relocate at its own expense, and a utility agreement will not be needed unless the utility company requests that ADOT's contractor complete the company's utility relocations. Utility agreements are processed by URR, but the LPA may be requested by URR to assist, if necessary. It is the LPA's responsibility to verify the need for a utility

agreement and to review prior-rights materials to ensure that they represent the areas of the project where utility relocations may be required. URR requests and verifies utility's prior rights after the LPA's review and prepares and processes the utility agreements.



CALENDAR WATCH

Utility agreements can require several months to process, and they must be completed before the utility clearance certification letter is issued and before the bid advertising date.

Authorization to Proceed

After the utility agreement is executed, ROW acquisition is completed (if necessary), any environmental issues are resolved, and FHWA federal-aid authorization is granted, URR will issue an authorization-to-proceed letter to the utility companies indicating that relocation activities may begin. URR, in coordination with the ADOT project manager, will authorize when the utility companies can proceed with design or construction, regardless of prior-rights status. Authorizations to proceed must be given in writing and, in all cases, must be dated and signed with copies provided to appropriate individuals. If a verbal authorization to proceed is given, it must be followed up with a written authorization.

Issue Resolution

Escalation Process

No formal escalation process is in place for URR. However, if conflicts arise that cannot be resolved through coordination with the ADOT district URR coordinator, the ADOT Statewide Utility Engineer should be contacted.

Financial Considerations

Utilities

Projects receiving federal-aid funding are subject to the FHWA policy requirements for utility relocations, adjustments, and reimbursements defined in 23 CFR 645.

For Certified Acceptance projects, and if federal funding is requested for utility relocation with prior rights, all requests for authorization of federal-aid funds for utility preliminary engineering and relocation costs should be submitted to URR, as well as to the ADOT project manager. Included with the request is the cost for the utility preliminary engineering and relocation work, the federal-aid pro rata share, and the local matching share of the project cost. ADOT will request authorization of federal-aid funds on the LPA's behalf and, if granted, will transmit a copy of FHWA authorization to the LPA. Costs incurred before FHWA authorization are not eligible for federal-aid reimbursement.

ADOT will execute a project agreement with FHWA for design, ROW, and utility relocation project costs on the LPA's behalf and will transmit a copy of the project agreement to the LPA. All requests for reimbursement of design, ROW, utility relocation payments, and other eligible federal-aid costs will be submitted to the ADOT Administrative Services Division, Accounts Receivable Section. See Chapter 17, Financial Management/Reimbursement, for more information on reimbursement request procedures.

If the MPO or COG policy provides for federal-aid participation in the cost of change orders and when project costs exceed the amount of federal-aid described in the project agreement, a request for a modified agreement can be made. ADOT will modify the project agreement in accordance with MPO or COG policy regarding federal-aid participation of change-order costs.

Railroads

Railway-highway grade crossing projects receiving federal-aid funding are subject to the regulations defined in 23 CFR 646, Railroads. Railway-highway grade crossing safety improvements may be funded through the federal-aid funding source appropriate for the associated project, the STP, or the RHGCP.

The ADOT URR railroad liaison manages railroad coordination, the RHGCP, and the inventory of statewide railroad-highway crossings.

All work within a railroad ROW requires a right-of-entry license or agreement from the railroad. This includes survey, geotechnical investigations, environmental surveys, and design- or construction-related activities.

If a project is not complex, a simple work agreement can usually be executed with the railroad in a few months. Examples of projects that are not complex include repaving roadway approaches, signing/stripping the roadway, installing conduits for Freeway Management System fiber-optic lines.

More extensive projects may require a new construction and maintenance agreement and formal approval by the Arizona Corporation Commission (ACC). Projects such as a new railroad crossing, grade separation at an existing crossing, or modification of a crossing such that the railroad signals need to be relocated or added are examples of more extensive projects. Other examples are installing sidewalks where the railroad will need to modify their crossing or the LPA is acquiring new railroad ROW.



CALENDAR WATCH

New agreements between the LPA and railroad can take over 12 months to execute, while ACC approval can take 6 months or more. Both the agreement and the ACC approval need to be obtained before the railroad will do the work.

Railway-Highway Grade Crossing Program

The RHGCP is administrated by ADOT URR on behalf of FHWA. This program provides funding for eliminating hazards at existing public crossings and cannot be used if a crossing has been modified (e.g., widened).

In accordance with 23 USC 130, URR is required to maintain a statewide inventory of all railway-highway grade crossings to identify those crossings that may require separation, relocation, or protective devices. URR then prepares and implements a schedule of proposed safety improvement projects based on that inventory, with input from the ACC, FHWA, the railroad companies, and the LPA. Once a crossing is selected for a safety improvement, a field meeting is held with affected parties and URR manages the safety project. This process normally takes about 36 months from the field meeting to the completion of safety improvements. LPAs can assist in this process by providing traffic counts, including school bus usage, pedestrian usage, and transit routes to the URR railroad liaison. See Chapter 6, Planning/Programming, for more information on funding programs such as the RHGCP.



The process to implement a safety project through the RHGCP normally takes about 36 months, from the field meeting to the completion of safety improvements. LPAs can assist in this process by providing traffic counts, including school bus usage, pedestrian usage, and transit routes to the URR railroad liaison.

Recordkeeping and Reporting

The utility/railroad coordination process involves the completion of several documents, including a utility report, utility special provisions, a utility agreement (if required), and a draft utility clearance letter, and the utility clearance certification letter. The LPA is required to submit draft versions (from preliminary to final) of these documents during the various steps in the utility/railroad coordination process, which correspond with the project design stages. Refer to the process overview above for details regarding the reporting requirements, and see Table 11-2 for information on the schedule of submittals. In accordance with ARS 35-214, records must be retained for a minimum of 5 years following FHWA closeout of the project in the FMIS.

Roles and Responsibilities

ADOT-Administered Projects

ADOT-administered projects follow the eight-step process within the five design stages, discussed in detail above. Table 11-2 summarizes the participants' roles and responsibilities in the utility/railroad coordination process. Additional information can be found in URR's *Utility Coordination Guide for Design Consultants*.

**Table 11-2 Roles and Responsibilities for Utility and Railroad Coordination—
ADOT-Administered Projects**

Task	LPA	Utility Company	ADOT	FHWA
Determination of utilities in the project area	Prepare a list of relevant utility companies and establish contact	N/A	N/A	Grant preliminary engineering authorization
SUE consultant coordination, if necessary	Contact the project's URR coordinator to initiate the process	N/A	Coordinate with SUE consultant	N/A
Initial draft of the utility report	Prepare and submit to URR	N/A	Review draft	N/A
DCR/PA	Prepare and submit to relevant utility companies for review	Review DCR/PA to identify utilities within project area	N/A	N/A
Utility companies' as-built plans	Request as-built plans and incorporate into Stage I plans	Provide as-built plans	N/A	N/A
Stage I plans	Submit to utility companies and URR	Review plans and comment	Review plans	N/A
Railroad coordination, if necessary	Identify any railroads within project area and contact URR railroad liaison	N/A	Coordinate with railroad companies to execute railroad agreement	Approve railroad agreement
Field meeting for RHGCP projects	Coordinate and attend meeting with affected parties	N/A	Coordinate and attend meeting with affected parties	Attend if an affected party
Utility report	Update	N/A	Review updated report	N/A
Stage II plans	Submit to utility companies and URR	Review plans and comment; verify utility locations on plans	Review plans and coordinate with the railroad companies, if necessary	N/A
Identification of utility conflicts	Coordinate with utility companies to identify conflicts; request elevation information from utility companies and incorporate into plans to determine actual conflicts	Coordinate with LPA to identify conflicts; provide elevation information	N/A	N/A
Utility-relocation determination	Coordinate with utility companies to determine whether utility relocation is necessary	Coordinate with LPA to determine whether utility relocation is necessary	N/A	N/A
Prior-rights determination, if necessary	Review prior-rights material and submit to URR for verification	Provide prior-rights documents	Request prior-rights documents and verify prior rights; begin preparation of utility agreement, if necessary	N/A
ROW acquisition, if necessary	Evaluate ROW width and coordinate with URR and ADOT ROW Group if ROW acquisition is required	N/A	Coordinate with ADOT ROW Group if ROW acquisition is required	N/A

Task	LPA	Utility Company	ADOT	FHWA
Draft relocation plans, if necessary	Coordinate with URR and utility companies regarding the plan, schedule, and cost estimates; hold pre-relocation meeting	Begin preliminary engineering design plans for relocation	Authorize utility companies to begin preliminary engineering design if relocations are necessary; review relocation plans	Authorize preliminary engineering funding
Betterment requests	Coordinate with all utilities to determine whether any betterment projects are desired; relay information to URR coordinator	Identify betterment requests	N/A	N/A
Draft utility special provisions	Prepare and submit to URR	N/A	Review draft	N/A
Utility report	Refine utility information and update report	N/A	Review updated report	N/A
Stage III plans	Submit to utility companies and URR	Review plans and comment	Review plans and coordinate with the railroad companies, if necessary	N/A
Final relocation plans	Resolve any utility conflicts; request relocation plans, schedules, and cost estimates from all the utility companies that must relocate utilities	Prepare relocation plans, schedules, and cost estimates	Review and approve relocation plans; authorize relocation work; prepare and process utility agreement, if necessary Finalize railroad agreements for ACC approval	Authorize relocation work
Utility report	Finalize and include URR approval of relocation plans	N/A	Ensure relocation plans are compatible with roadway design and schedule; railroad liaison assists with railroad-related provisions	N/A
Draft utility clearance letter	Prepare and submit draft letter and backup documentation to the URR coordinator and ADOT project manager for review	N/A	Review and verify information	N/A
Updated utility special provisions	Complete and submit to the URR coordinator and ADOT project manager for review	N/A	Review provisions	N/A
Stage IV plans	Submit to utility companies and URR	Review and comment	Review and coordinate with the railroad companies, if necessary	N/A

Task	LPA	Utility Company	ADOT	FHWA
Utility clearance certification letter	Prepare and submit updated draft letter and backup documentation to the URR coordinator and ADOT project manager for review to certify that all railroad- and utility-related concerns have been addressed	N/A	Review and approve letter and forward to ADOT C&S, FHWA, LPA, and other appropriate parties	Authorize construction funding
Final utility special provisions	Complete and submit to the URR coordinator and ADOT project manager for review	N/A	Review and approve provisions	N/A
Bid advertisement	N/A	N/A	Send to utilities	N/A
Postclearance activities	Assist if conflicts arise during construction	N/A	Manage postclearance activities	N/A

Table Source: ADOT URR's *Utility Coordination Guide for Design Consultants* (see the Resources list at the end of this chapter).

Self-Administered Projects

ADOT URR participates in utility clearances for self-administered projects. If the project is self-administered, the LPA must contact URR and the utility companies for utility location information and must coordinate directly with those companies to avoid or resolve any utility conflicts.

Certification Acceptance Projects

During the utility/railroad coordination process, a certified LPA is solely responsible for coordinating with the utility companies to ensure avoidance or to plan for relocation of conflicting utilities, including the preparation of the utility report, utility agreement (if necessary), the utility special provisions, and the utility clearance certification letter. If the LPA requests utility relocation that is covered by prior rights, then the LPA must submit its requests for federal-aid funding through URR, as well as through the ADOT project manager. In this instance, the LPA must coordinate with URR and submit the clearance documentation and utility or railroad agreement before the execution of those documents. The LPA must also coordinate with the railroad companies to obtain the railroad agreement, if necessary. FHWA will only review and provide comments on the draft utility clearance letter on FHWA full-oversight projects (For more information on FHWA and ADOT oversight roles, see Chapter 2, ADOT Administration, and the *FHWA and ADOT Stewardship and Oversight Agreement for Arizona* referenced in the Resources list at the end of this chapter).

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RESOURCES

ADOT Part B: Dictionary of Standardized Work Tasks

http://www.azdot.gov/docs/default-source/businesslibraries/dictionary_of_standard_work_tasks_fy_2014.pdf?sfvrsn=4

Guidelines for the Preparation of Project Specific Utility Reports

<http://www.azdot.gov/docs/default-source/default-document-library/utilityreportguidelines.pdf?sfvrsn=0>

ADOT Policy for Accommodating Utilities on Highway Rights-of-Way

<http://www.azdot.gov/docs/business/accommodating-utilities-guide.pdf?sfvrsn=0>

ADOT Utilities and Railroad Engineering Section

<http://www.azdot.gov/business/engineering-and-construction/utility-and-railroad-engineering/utility-coordination>

ADOT Utility Coordination Guide for Design Consultants

<http://www.azdot.gov/docs/business/utility-coordination-guide.pdf?sfvrsn=0>

ADOT Statewide Utility Encroachment Permit Logs

<http://www.azdot.gov/business/engineering-and-construction/utility-and-railroad-engineering/encroachment-permit-log>

Arizona Blue Stake

<http://www.azbluestake.com/>

FHWA Area Engineer Manual

(Contact: Jeff Lewis at 916-498-5035; jeff.lewis@dot.gov)

FHWA and ADOT Stewardship and Oversight Agreement for Arizona

<http://www.fhwa.dot.gov/federalaid/stewardship/agreements/az.cfm>

<http://www.azdot.gov/business/engineering-and-construction/traffic/traffic-safety/stewardship-and-oversight-agreement-for-arizona>

FHWA Program Guide for Utility Relocation and Accommodation on Federal-Aid Highway Projects

<http://www.fhwa.dot.gov/reports/utilguid/>

FHWA Railroad-Highway Grade Crossing Handbook (August 2007, revised 2nd edition)

http://safety.fhwa.dot.gov/xings/com_roaduser/07010/

FHWA Utilities Program Website

<http://www.fhwa.dot.gov/programadmin/utility.cfm>

Maricopa County Department of Transportation, A General Guide for the Railroad & Corporation Commission Application/Construction Process

<http://www.mcdot.maricopa.gov/technical/home.htm>

Pima County Department of Transportation, Roadway Design Manual (2010, 3rd edition)

<http://webcms.pima.gov/cms/one.aspx?portalId=169&pageId=63368>

CHAPTER 12

Materials Report Clearances



Introduction

LPAs are responsible for obtaining all applicable approvals and clearances for materials to be used and for coordinating all activities related to accomplishing the preliminary engineering survey and pavement design that may be required for a federally funded project. This chapter explains the process for an LPA to obtain these approvals and clearances for ADOT-administered projects. Self-administering and certified LPAs may follow their own materials clearance process, as approved by ADOT. LPAs must comply with all applicable state and federal laws, regulations, and requirements regarding material use on federally funded projects and must provide compliance documentation to ADOT and FHWA during the final acceptance process. An overview of the materials report clearance process for ADOT-administered projects, including an explanation of the timeline and agency coordination, and an overview of the documentation requirements are provided. Roles and responsibilities, issue resolution, financial considerations, and recordkeeping and reporting are also covered.

Overview of Materials Report Clearance Process

All materials incorporated in federally funded LPA projects must meet ADOT standards and guidelines as discussed in the Materials Standards and Guidelines section below. However, ADOT currently does not participate in materials clearances for self-administered or Certification Acceptance projects, and some ADOT-administered projects may not require a materials report clearance.

LPAs with ADOT-administered projects should contact their ADOT project manager or the ADOT Materials Group to determine whether a materials report clearance is needed. Obtaining a materials report clearance can include geotechnical analysis, pavement design, traffic control, and design information. Each aspect of the materials report clearance should be completed in accordance with ADOT procedures and guidelines and should follow ADOT's document formats.

It is the responsibility of the ADOT Materials Group and its various sections to evaluate the preliminary engineering survey and pavement design information (if applicable) submitted by the LPA for compliance with ADOT and FHWA policies and standards. The Materials Group also tests and evaluates materials used for construction and inspects completed structures for conformance with applicable ADOT and FHWA policies and standards. Figure 12-1 shows an overview of the materials report clearance process.

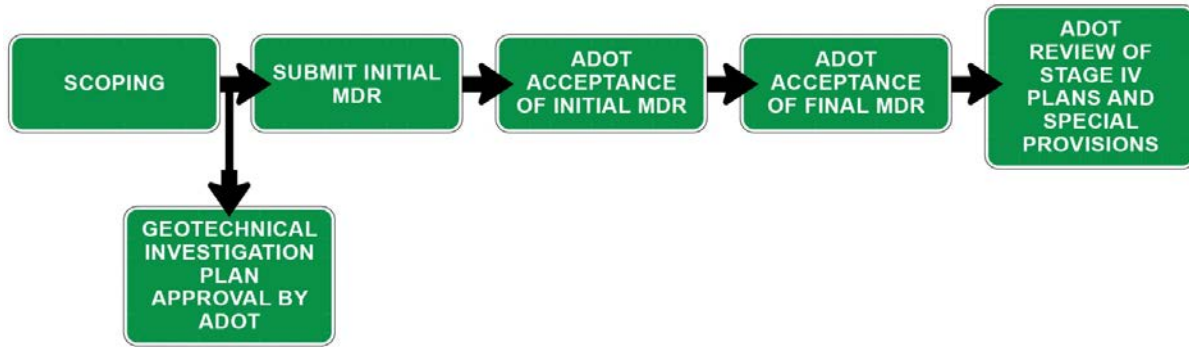


Figure 12-1 Materials Report Clearance Process

See Chapter 13, Construction, for more information on materials testing and inspections during construction. The Materials Group is organized into eight technical sections: Administration, Geotechnical Design, Geotechnical Operations, Pavement Design, Pavement Management, Pavement Materials Testing, Quality Assurance, and Structural Materials Testing. The group has regional laboratories in Phoenix, Tucson, Prescott, and Flagstaff. Contact information for each section’s supervisor or manager is available in Appendix A.

Timeline

The materials report clearance process begins with coordination between the LPA and the Materials Group during the scoping process (Figure 12-2). Following development and completion of geotechnical investigations by the LPA, and subsequent plan approvals by the Materials Group, the LPA will prepare a materials design report (MDR) for acceptance by the Materials Group. Throughout the design phase, the LPA should provide the design plans and special provisions at the appropriate submittal stages for review, as well as locate and test materials for use on the project. At the conclusion of construction activities, the Materials Group will review the completed structures for compliance with federal and state quality requirements.

For federally funded projects, LPAs are responsible for development of an MDR that meets ADOT standards. The MDR is typically submitted in two phases—an initial MDR and a final MDR. Following the Materials Group review and acceptance of the initial MDR, a final MDR addressing the comments received on the initial MDR is prepared and submitted for review and acceptance by the Materials Group. The initial MDR is typically submitted during 30% design plans (Stage II design), and the final MDR during 60% design plans (Stage III design). Information related to the format and content of the initial and final MDRs are described in the Materials Report Clearance Review and Documentation Requirements section of this chapter.



The ADOT Materials Group requires approximately 2 weeks to review and approve each submittal item.

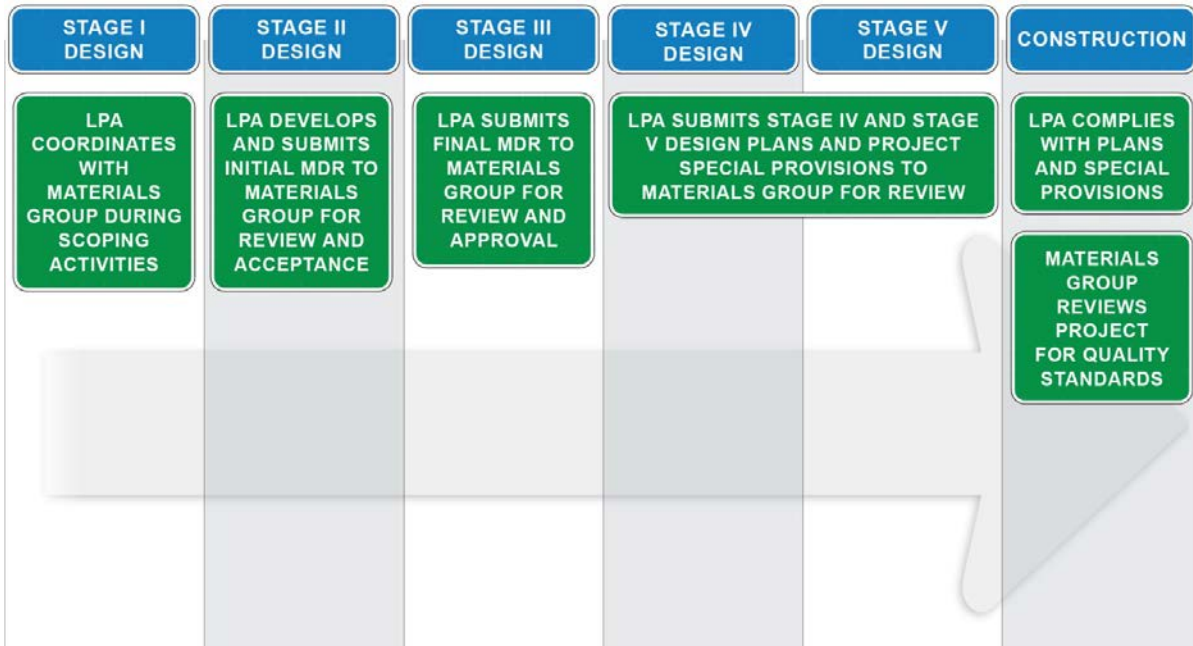


Figure 12-2 Materials Report Clearance Timeline

Agency Coordination

The LPA’s coordination with the Materials Group is critical for ensuring compliance with current ADOT design standards and materials specifications, as well as format consistency. The LPA should coordinate with the Materials Group and provide them review opportunities on:

- Scoping documents (i.e., PAs or DCRs)
- Geotechnical investigation reports
- MDRs and pavement design summaries
- Stage II, Stage III, Stage IV (95%), and Stage V (100% PS&Es) design plans
- Special provisions

This coordination could also include providing meeting invitations/minutes, project status reports, and team lists. Items requiring coordination with or approval by the Materials Group and an identification of when the associated reviews should occur are further described below.

The Pavement Design section of the Materials Group prepares a materials pavement design project status report. This report contains project information and the assigned pavement designer information; it is updated monthly by the Pavement Design section. The LPA should provide applicable information for the monthly report updates during its coordination with the Materials Group.

Materials Standards and Guidelines

A series of reference manuals created and maintained by the Materials Group provide detailed information about LPA submittal requirements, design standards, sampling and testing requirements, and policies and procedures that should be adhered to when planning and designing structures and selecting materials to be used for a project. These manuals outline LPA responsibilities and provide descriptions of the tasks to be performed.

It is strongly recommended that the LPA or its consultant follow only ADOT standards when developing documentation and that the document format provided in the Materials Group manuals be followed. This ensures that adequate information is provided and that efficient review of those documents by the Materials Group can occur. Those manuals, and any updates to their content, are available on the Materials Group website (see the Resources list at the end of this chapter).

ADOT Materials Testing Manual

The *ADOT Materials Testing Manual* provides standardized materials sampling and testing procedures for laboratories to evaluate materials for conformance with ADOT specifications. This manual also outlines the certification process and applicable compliance guidelines for materials to be incorporated into projects. Procedures outlined in the manual are separated into four categories:

- ▶ Procedures that follow established standards
- ▶ Procedures that follow established standards but that have been modified
- ▶ Procedures that are modifications of testing procedures used by other state transportation departments
- ▶ Procedures originated by ADOT, referred to as the “Arizona Method”

It is the responsibility of the LPA or its contractor to ensure that only materials certified in accordance with ADOT QA procedures are incorporated into a project. The intent of the *Materials Testing Manual* is to provide detailed procedures so that a competent laboratory operator who is unfamiliar with the method can obtain accurate results when a procedure is correctly followed.

Series 900 of the *ADOT Materials Testing Manual* details ADOT's Materials Quality Assurance Program, which has been established in accordance with the revised requirements of 23 CFR637B, Quality Assurance Procedures for Construction. Series 900 of the manual details ADOT's policies, procedures, and guidelines for contractor testing, materials acceptance and certification, and independent assurance sampling and testing. ADOT's Quality Assurance Program is intended to ensure that all materials incorporated into ADOT projects satisfy specification requirements and provide the highest degree of confidence in the reliability of tests performed by laboratories. For assistance locating approved materials-testing laboratories and certified technicians, refer to the Materials Group Quality Assurance Section website referenced in the Resources list at the end of this chapter.

Series 1000 of the *ADOT Materials Testing Manual* provides certification procedures and documentation requirements for LPAs. As described in Section 106.05 of the *ADOT Standard Specifications for Road and Bridge Construction*, a Certificate of Compliance or a Certificate of Analysis must be furnished for certain materials or manufactured assemblies before their use. A listing of materials that require either a Certificate of Compliance or a Certificate of Analysis is also provided in Series 1000.

ADOT Materials Policy and Procedure Directives Manual

The *ADOT Materials Policy and Procedure Directives Manual* establishes uniform policies regarding materials used in construction projects. It is a resource for determining use, testing, sampling, and disposal requirements necessary for various construction materials and byproducts. This manual describes the procedures, roles, and responsibilities for ADOT and its Materials Group to acquire, dispose of, and use ADOT-licensed materials sources and stockpile sites. The manual also advises ADOT and contractor personnel on how to obtain approval to use ADOT-licensed materials sources for construction projects.

ADOT Preliminary Engineering and Design Manual

ADOT operates in accordance with AASHTO principles and guidelines. The *ADOT Preliminary Engineering and Design Manual* has incorporated these principles and guidelines and has provided modifications as appropriate for Arizona. The manual includes practices, procedures, and reporting requirements for field reviews, materials pits, geotechnical investigations, pavement rehabilitation, pavement design and management, and traffic analysis. Chapter 5 of the *ADOT Preliminary Engineering and Design Manual* is dedicated to the policies, procedures, and submittal requirements that apply specifically to an LPA (or its consultant) for federally funded LPA projects.

Additional reference and guidance documents such as the 2008 *ADOT Standard Specifications for Road and Bridge Construction*, 2008 *ADOT Contracts and Specifications Stored Specifications*, and *ADOT Materials Group Pavement Design Standard Items* provide information on additional formats and technical requirements that must be met by the LPA. Links to those documents are provided in the Resources list at the end of this chapter.

Materials Report Clearance Review and Documentation Requirements

Projects must follow the appropriate investigation, design, and testing standards developed by the Materials Group, as presented in the available reference materials. The LPA will be responsible for facilitating reviews on scoping documents and special provisions, obtaining approvals on survey plans, and gaining acceptance on plans and reports reviewed by the Materials Group. Descriptions of the items requiring preparation by the LPA are described below.

Scoping Process

Coordination with the Materials Group should be initiated during the project scoping phase. This coordination is necessary to gain input on standards and specifications that may apply, given a specific environmental setting or project type. Various Materials Group sections will review the project limits and provide recommendations and insight on the issues that the project may encounter. The Materials Group sections will advise the LPA on what in-house data may assist in the design process, as well as what data should be collected and incorporated into geotechnical reports and pavement design summaries.

Geotechnical Investigation Plan/Materials Source Approval

Chapter 1 of the *ADOT Preliminary Engineering and Design Manual* provides procedures for conducting geotechnical investigations and the minimum geotechnical requirements/standards to be documented in a geotechnical investigation report. Appendix C of that manual provides supplemental information on geotechnical

investigation requirements for ADOT projects. Geotechnical investigation plans should be provided to the Materials Group for approval before initiating geotechnical operations. This coordination typically occurs during 15% design plans (Stage I design).



Approval of the planned sampling locations and methods of investigation will require approval from the ADOT Materials Group Geotechnical Design Section before commencing field operations.



The ADOT Materials Group does not provide reviews or grant approvals related to environmental clearance or access that may be needed for geotechnical investigations. Environmental clearance to perform any project-related geotechnical investigations should be coordinated with the LPA's assigned ADOT project manager and EPG liaison.

For projects that will require the borrow or disposal of material, the LPA should advise its selected contractor on the environmental clearance required to authorize a materials source. LPA use of a materials source for a federally funded project will require ADOT approval before every use—whether it is an ADOT-licensed source, a previously approved contractor-furnished source, or a new source.

ADOT EPG oversees the preparation of environmental documents for all materials sources and offers separate environmental clearance processes for both ADOT-licensed materials sources and contractor-furnished materials sources. See the Other Environmental Clearances section in Chapter 9, Environmental Clearances, for more information.



NEPA analysis completed for an LPA project must include the evaluation of potential materials sources only if FHWA or ADOT predesignated the source during the project planning phase or before construction. If a potential materials source is not predesignated by FHWA or ADOT, the LPA's contractor will be responsible for obtaining additional NEPA clearance through the Materials Group independent of the project's overall NEPA clearance.

Initial Materials Design Report

To ensure that an LPA project meets ADOT's procedures and guidelines for preliminary engineering survey and pavement design, the LPA must prepare and submit an initial MDR to the Materials Group. The initial MDR submittal consists of four stand-alone parts: a geotechnical report, a pavement design summary, a preliminary

pavement structure cost estimate, and an initial design report. Format and content of the MDR can be found in Chapters 2 and 5 of the *ADOT Preliminary Engineering and Design Manual*.

Submittal of the initial MDR to the Materials Group typically occurs during Stage II design. The LPA should include a copy of the Stage II design plans to the Materials Group along with the initial MDR. The appropriate reviewers from each Materials Group section will be determined following coordination during the scoping process.

Final Materials Design Report

Once the initial MDR has been accepted by the Materials Group, the final MDR should be prepared and submitted to the Materials Group for review and approval. Review of the final MDR commonly occurs during Stage III design. At this time, the geotechnical investigation report, pavement design summary, and final design report included in the final MDR submittal must be signed and sealed by a registered Arizona engineer. LPAs must provide supporting documentation before ADOT Materials Group will approve the final MDR for the given project.



For federally funded projects, the ADOT Materials Group's review of the final MDR is required before advertising the project.

Following the acceptance of the final MDR, it is important that the LPA provide the Materials Group opportunities to review the Stage IV design plans and the project special provisions when available. The review of these items is vital to ensure that the necessary standards and specifications have been appropriately incorporated into the project documents.

Issue Resolution

Escalation Process

No formal escalation process exists for the Materials Group. However, if conflicts arise that cannot be resolved through coordination and negotiation between the LPA and the Materials Group sections, the ADOT project manager should be contacted.

Financial Considerations

Projects receiving federal-aid funding are subject to FHWA policies, procedures, and guidelines as defined in 23 CFR 637. Adherence to these guidelines, including the Materials Group Quality Assurance Program, provides the basis for FHWA work-acceptance guidelines. It is important that work be performed and completed according to the processes or material requirements as shown on plans or specified in a contract. A project that fails to meet ADOT specifications may cause an LPA or its contractor to become liable for corrections. Inspections performed by FHWA and ADOT on completed projects will determine the magnitude of reimbursement that an LPA will

receive, as well as any additional requirements of an LPA or its contractor if a project does not meet FHWA or ADOT specifications.

Recordkeeping and Reporting

In accordance with ARS 35-214, records must be maintained for a minimum of 5 years following FHWA closeout of the project in the FMIS. Specific documents completed by an LPA, such as the geotechnical investigation report, the pavement design summary, and the initial and final MDRs, are necessary to satisfy the overall project closeout requirements presented in Chapter 14, Final Acceptance, and must be kept on file and be available for review.



Work that is improperly administered or documented may be considered “nonparticipating” and may therefore be ineligible for FHWA reimbursement. The LPA is responsible for funding the entire cost of all nonparticipating work.

Roles and Responsibilities

ADOT-Administered Projects

For ADOT-administered projects, the Materials Group will work with the LPA to provide project oversight throughout the project life cycle and provide approval on submitted materials and related reports. The LPA is responsible for facilitating communication with the Materials Group to gain information about on-site conditions, existing data, investigation procedures, documentation requirements, pavement materials, and testing procedures. The LPAs are also responsible for coordinating with the Materials Group in a timely manner and for conducting investigations and preparing geotechnical investigation plans and MDRs for approval by the Materials Group in accordance with ADOT standards.

Table 12-1 summarizes LPA, ADOT, and FHWA roles and responsibilities by clearance task. MPOs and COGs are not involved in materials report clearances and are therefore not included in the table.

Table 12-1 Roles and Responsibilities for Materials Report Clearances—ADOT-Administered Projects

Task	LPA	ADOT	FHWA
Scoping, including scoping document (i.e., PA or DCR) preparation	Facilitate Materials Group review of scoping documents	Provide information about project area and type and pertinent information as appropriate	N/A
Geotechnical investigation plan (during Stage I design preparation)	Prepare and provide to Materials Group for review	Provide information as appropriate; grant approval	For full-oversight projects, provide comments to ADOT, as appropriate, upon receiving copy of initial and final investigation plans ^a

Task	LPA	ADOT	FHWA
Initial MDR (during Stage II design preparation)	Prepare and provide to Materials Group for review and acceptance	Provide comments and acceptance; ensure compliance with applicable state and federal requirements	For full-oversight projects, provide comments to ADOT, as appropriate, upon receiving copy of initial MDR ^a
Final MDR (during Stage III design preparation)	Prepare and provide to Materials Group for review and acceptance	Provide comments and acceptance; ensure compliance with applicable state and federal requirements	For full-oversight projects, provide comments to ADOT, as appropriate, upon receiving copy of final MDR ^a
Stage IV design plans	Provide to Materials Group for review	Review and provide comments, as necessary; ensure compliance with applicable state and federal requirements	N/A
Special provisions (during Stage IV or Stage V design preparation)	Provide to Materials Group for review	Review and provide comments; ensure compliance with applicable state and federal requirements	N/A
QA	Design project according to ADOT quality standards	Review project for ADOT quality standards	N/A

Table Note: ^a For more information on FHWA and ADOT oversight roles, see Chapter 2, ADOT Administration; see also the FHWA and ADOT Stewardship and Oversight Agreement for Arizona referenced in the Resources list at the end of this chapter.

Self-Administered and Certification Acceptance Projects

ADOT currently does not participate in materials clearances for self-administered or Certification Acceptance projects. Self-administering and certified LPAs follow their own materials clearance process, but must provide materials clearance compliance documentation to ADOT and FHWA during the final acceptance process. It is recommended that self-administering and certified LPAs contact the Materials Group during the scoping process, as needed, regarding questions about and recommendations for geotechnical analysis, materials and design standards, and materials-testing procedures. Self-administering and certified LPAs must comply with all applicable state and federal laws, regulations, and requirements regarding materials use on federally funded projects.

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RESOURCES

ADOT Contracts and Specifications—Stored Specifications

<http://www.azdot.gov/business/ContractsandSpecifications/Specifications>

ADOT Environmental Planning Group ~ Material Sources Guidance

<http://www.azdot.gov/business/environmental-services-and-planning/environmental-guidance-documents/material-source-guidance>

ADOT Materials Group Materials Manuals

<http://www.azdot.gov/business/engineering-and-construction/MaterialsGroup>

ADOT Materials Group Pavement Design Standard Items

<http://www.azdot.gov/docs/default-source/materials-library/design-report-standard-items.pdf?sfvrsn=10>

ADOT Materials Group Quality Assurance

<http://azdot.gov/business/engineering-and-construction/MaterialsGroup/quality-assurance>

ADOT Materials Group Website

<http://www.azdot.gov/business/engineering-and-construction/MaterialsGroup>

ADOT Materials Pavement Design Status Report

http://azdot.gov/docs/default-source/materials-library/current_project_status_report.pdf?sfvrsn=0

ADOT Materials Policy and Procedure Directives Manual

<http://www.azdot.gov/docs/default-source/businesslibraries/ppd.pdf?Status=Master&sfvrsn=11>

ADOT Materials Testing Manual – Series 900

<http://azdot.gov/docs/default-source/businesslibraries/qa-program-0114.pdf?sfvrsn=18>

ADOT Materials Testing Manual – Series 1000

<http://azdot.gov/docs/default-source/businesslibraries/series1000-certificates.pdf?sfvrsn=8>

ADOT Preliminary Engineering and Design Manual

<http://www.azdot.gov/docs/businesslibraries/ped.pdf?Status=Master&sfvrsn=4>

ADOT Standard Specifications for Road and Bridge Construction

<http://www.azdot.gov/docs/business/2008-standards-specifications-for-road-and-bridge-construction.pdf?sfvrsn=0>

Federal-Aid Policy Guide, Pavement Design Considerations

<http://www.fhwa.dot.gov/pavement/cfr06261.cfm>

FHWA and ADOT Stewardship and Oversight Agreement for Arizona

<http://www.fhwa.dot.gov/federalaid/stewardship/agreements/az.cfm>

<http://www.azdot.gov/business/engineering-and-construction/traffic/traffic-safety/stewardship-and-oversight-agreement-for-arizona>

FHWA Construction Program Guide

<http://www.fhwa.dot.gov/construction/cqit/qa.cfm>

FHWA Pavements Information

<http://www.fhwa.dot.gov/pavement/>

Life-Cycle Cost Analysis

<http://www.fhwa.dot.gov/infrastructure/asstmgmt/lcca.cfm>



CHAPTER 13

Construction

Introduction

Planning, programming, scoping, and design activities are prerequisites to construction (Figure 13-1). This chapter describes the primary considerations and activities involved in constructing LPA projects. ADOT is responsible for administering the construction of federally funded transportation projects, except for projects administered by certified LPAs and for projects in which LPAs have been authorized to self-administer construction activities. However, ADOT is responsible for ensuring that all projects are in compliance with all applicable state, federal, and tribal requirements; providing adequate inspection and supervision during construction of approved PS&Es; and meeting FHWA closeout requirements. This chapter identifies some of the primary activities and procedures that must be completed as part of the construction phase of an LPA project.

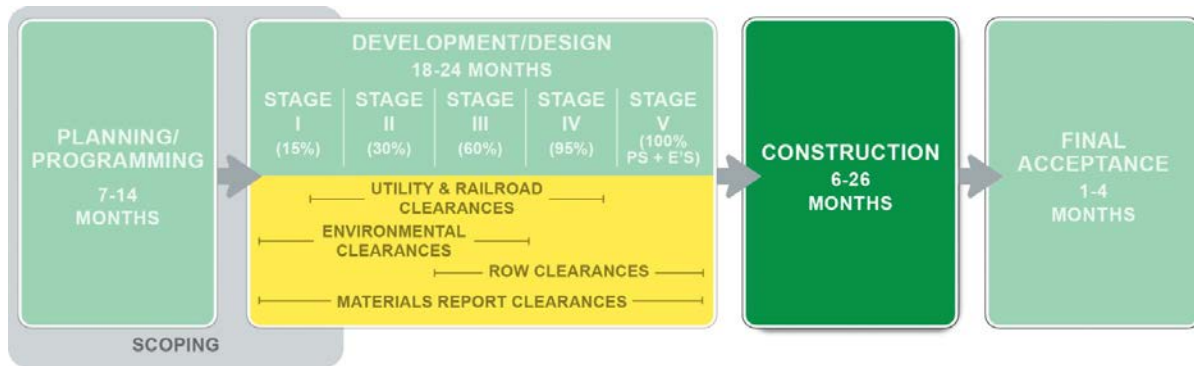


Figure 13-1 Construction in the Project Life Cycle

LPAs are required to follow all applicable ADOT and FHWA policies and procedures for project activities that receive federal-aid funds, regardless of whether the project is administered by ADOT or the LPA. For projects that receive federal-aid funds for construction activities, LPAs must follow the procedures included in this chapter. For projects that do not receive federal funds for construction, the LPA may follow their own construction procedures; however, if federal-aid funds are used for any other part of the project, the entire project (including construction) must comply with all federal requirements and regulations.



Work conducted before the federal-aid authorization effective date is nonparticipating and will not be reimbursed.

Advertisement, Bidding, and Award

The following items must be completed before advertising a project for bid:

- ▶ ADOT-issued environmental, ROW, and utility clearances
- ▶ PS&E package approved by ADOT C&S
- ▶ An executed IGA, if applicable
- ▶ Federal-aid funding authorization for construction
- ▶ LPA’s local matching funds provided to ADOT

Once the pre-advertisement requirements have been met, the project may be advertised for bid. Federal-aid projects must be advertised by either by ADOT or an LPA authorized to do so through the self-administration or Certification Acceptance processes. For ADOT-administered projects, the State Transportation Board will advertise projects and open, review, certify, and award project bids. For self-administered and Certification Acceptance projects, the ADOT project manager will advise the LPA when advertising can proceed. The advertising, bid, and award process requires a minimum of 3 months.



A minimum advertisement period of 3 weeks is required for all projects. FHWA must approve requests for shorter advertisement periods. For more complex projects advertisement period may be longer than 3 weeks. LPAs should allow for a minimum of 3 months for the advertising, bid, and award process.

Projects are advertised for bid by publishing a Notice to Contractors in a newspaper receiving wide local circulation. A minimum advertisement period of 3 weeks is required for all projects. FHWA must approve requests for shorter advertisement periods. Advertising costs are eligible for reimbursement with federal-aid funds.

Following the advertisement period, all bids are opened publicly and read aloud either item-by-item or by total amount. The bid reading serves to confirm for bidders whose bids are successful and establishes the cost to build the project for the LPA and the general public. Bids should be evaluated based on standards outlined in advertisement. Bid analysis is performed before awarding and executing the contract to justify the award or to reject the bids and to ensure that adequate competition and the lowest possible cost were received. Executed contracts must be sent to ADOT for all federally funded projects. For additional information on contractor selection

and requirements for bid advertising, see the Contractor Selection Process section in Chapter 18, Contracting, Consultant Selection, and Procurement.

Contractors for federal-aid highway construction projects must be awarded on the basis of the lowest responsive responsible bidder (23 USC 112), unless ADOT or the LPA is able to demonstrate that some other method is more cost effective or that an emergency exists. In addition, each LPA and all of its consultants, subconsultants, contractors, subcontractors, and vendors must take all reasonable steps to ensure that DBEs have equitable opportunity to compete for contracts. In accordance with federal law, a certain percentage of the amount of federal-aid highway project funding must be expended by certified DBEs, which will be determined on a project-specific basis and for on-call contracts. See Chapter 16, Civil Rights, for more details on the DBE program.



No project will be advertised for bids, no project work will be undertaken, and no materials will be purchased on any federal-aid project before FHWA has granted federal-aid authorization. Any project activities conducted before the federal authorization effective date will not be eligible for reimbursement of federal funds.

Construction Administration

For ADOT-administered projects, ADOT will provide construction-administration and oversight services. Self-administering and certified LPAs are responsible for conducting construction-administration activities on their projects; however, ADOT remains responsible for oversight. Typical construction-administration responsibilities include but are not limited to the following: labor compliance interviews, verification of DBE “commercially useful functions” (49 CFR 26.55), approval of construction staking and surveying, review of shop drawings and contractor submittals, materials testing and certifications, daily reviews and inspections of construction activities, and ensuring that the workmanship and materials are in accordance with the approved PS&Es and other documents incorporated by reference in the PS&E package. Self-administering and certified LPAs are also responsible for ensuring that independent QA activities related to workmanship and materials are completed during construction administration.

During the construction phase, LPAs with ADOT-administered and self-administered projects are required to follow the procedures in ADOT’s *Standard Specifications for Road and Bridge Construction* and the ADOT *Construction Manual*, which includes the use of the LCPtracker Labor Compliance system and ADOT’s daily diary process. ADOT uses the LCPtracker system for ADOT-administered projects; self-administering and certified LPAs may use either the LCPtracker system or their own tracking system, if it has been approved during the self-administration application process or the Certification Acceptance application process, respectively. For more information on LCPtracker requirements for LPAs, see the Best Practices during Construction section in Chapter 5, Managing the Project.

ADOT Construction Administration Costs

When administering construction activities, ADOT requires a 15% construction engineering fee (i.e., construction administration fee) based on the final project construction cost estimate to cover ADOT administration costs during the construction phase of the project. The 15% construction-administration fee is due before advertisement for bid. These costs are eligible for federal reimbursement at the pro rata rate for the program in which the project is funded. Unused local matching funds can be refunded by ADOT. For additional information regarding estimated costs for ADOT to administer LPA projects, see the Initiating an LPA Project section in Chapter 2, ADOT Administration.

Construction Management

For ADOT-administered projects, ADOT is responsible for oversight of construction management activities. However, the LPA is responsible for construction management for self-administered and Certification Acceptance projects. If a certified or self-administering LPA lacks the staff required to perform construction management or engineering duties needed during the construction phase, the LPA must use a consultant or contractor to perform those duties. Procurement of consultants or contractors must be in accordance with Chapter 18, Contracting, Consultant Selection, and Procurement. The contractor is responsible for complying with all applicable federal, state, and local regulations during construction activities. However, self-administering and certified LPAs are responsible for the performance of the consultant or contractor, as if they were part of the LPA's staff.

For ADOT-administered projects, it is important that LPAs have in-house staff or consultants hired and in place to address postdesign issues that typically arise during construction. Chapter 8, Development/Design, provides additional information about postdesign responsibilities.



Certified and self-administering LPAs should be thoroughly familiar with federal, state, and local requirements during the development/design and construction phases, and should provide sufficient oversight to ensure that consultants and contractors meet these requirements.

Permits

Except for clearances specifically provided by ADOT (such as environmental clearances), LPAs are responsible for obtaining and complying with all federal, state, and local permits and authorizations that are necessary to construct the project. Such permits may include those for dust and noise control, CWA Section 402 (stormwater) and Section 404 (dredge and fill), and native plant removal. Typically, permits are identified during the various project development phases. For further information on potential environmental clearances and permit coverage, see Chapter 9, Environmental Clearances.

For federally funded LPA projects, municipal permitting fees and bonds normally requested of a contractor or subcontractor are not eligible for federal reimbursement. It is expected that municipalities will waive these costs as part of the project.



Other than NEPA, ROW, and utility and railroad clearances provided by ADOT, LPAs are solely responsible for acquiring and complying with all required environmental permits, clearances, and mitigation measures. ADOT will monitor compliance for ADOT-administered projects throughout the project development process and will audit for compliance on self-administered and Certification Acceptance projects during final acceptance of the project.



To be eligible for reimbursement, each materials source location must be environmentally cleared before use, in accordance with federal-aid requirements, if not already included in the clearances provided by ADOT.

Selected Federal Regulatory Requirements

Required Contract Provisions, Federal-Aid Construction Contracts (FHWA Form 1273)

FHWA Form 1273 (sometimes referred to as the “pink pages”) contains contract provisions and proposal notices required by FHWA and other federal agencies. These contract provisions must be physically incorporated into all federal-aid construction contracts, subcontracts, and purchase orders. In addition to general contract provisions, Form 1273 covers using local hiring preferences; using convict labor; nondiscrimination; nonsegregated facilities; payment of predetermined minimum wage (compliance with the Davis-Bacon and Copeland Acts); required records for materials, supplies, and labor; subletting or assigning contracts; safety; making false statements about highway projects; implementing the CAA and the Federal Water Pollution Control Act; certifications regarding debarment, suspension, ineligibility, and voluntary exclusion; and certifications regarding the use of contract funds for lobbying (49 CFR 20). Other contract provisions are also addressed, such as compliance with Buy America requirements (23 CFR 635.410); Indian preference in employment; noncollusion; OJT; and standardized changed conditions.

LPAs should note that the form cannot be changed and must be used as written by the U.S. Department of Labor. The current FHWA Form 1273, revised May 2012, is available through ADOT C&S and on the FHWA website (see the Resources list at the end of this chapter for a link to that form).



Mandatory federal contract provisions for construction contracts are described in FHWA Form 1273, which is available through ADOT C&S and on the FHWA website (see the Resources list at the end of this chapter for a link to that form).

Wage Rates and Payroll

Federal regulations require that all construction contracts related to a federal-aid highway exceeding \$2,000 comply with the Davis-Bacon and the Copeland Acts. The Davis-Bacon Act requires the payment of a predetermined minimum wage. The Copeland Act is designed to protect workers from being made to pay kickbacks to employers for the privilege of being employed. To verify compliance with the provisions of the Davis-Bacon and Copeland Acts, LPAs are required to provide weekly certified payroll statements to ADOT.

LPAs should note that the provisions of the Davis-Bacon and Copeland Acts do not apply to highway construction projects located on roadways functionally classified as local roads or rural minor collectors and those that are not located within the ROW of a federal-aid highway. Davis-Bacon Act and Copeland Act provisions also do not apply to construction work performed in-house by LPA employees.



Employee interviews conducted in accordance with the requirements of the Davis-Bacon Act are essential for ensuring compliance with prevailing wage-rate requirements. Full compliance reviews under the Davis-Bacon Act should also include visits to the job site, the review of time and pay records and related information, and discussions with the contractors and subcontractors. For more information, see the Davis-Bacon Act section in Chapter 16, Civil Rights.

The Contract Work Hours and Safety Standards Act (CWHSSA), which regulates hours and safety standards in construction contracts, is required for federal service contracts and federal and federally assisted construction contracts exceeding \$100,000. The CWHSSA requires contractors and subcontractors on covered contracts to pay laborers and mechanics employed in the performance of the contracts 1.5 times their basic rate of pay for all hours worked over 40 in a workweek. The CWHSSA also prohibits unsanitary, hazardous, or dangerous working conditions on federal and federally financed and assisted construction projects.

Nonhighway construction projects administered under the Common Rule are subject to Davis-Bacon Act, Copeland Act, and CWHSSA requirements, as stated in 49 CFR 18.36(i). Coverage applies to any “contract,” (not to be confused with “project”). Thus, any federally funded construction contract, regardless of the level of federal participation, will be a covered contract if it meets the functional classification criteria described above, or if it is being administered under the Common Rule.

Buy America Provisions

Buy America Provisions require that all iron and steel products that are permanently incorporated into a federal-aid highway project must be produced and manufactured in the United States. “Pre-construction” or “project-level” Buy America certifications are not acceptable since these are only promises to comply and are redundant with signing the project contract. Individual Buy America certifications must accompany each shipment of material that includes steel or iron products. All projects must incorporate ADOT stored specifications regarding Buy America into their contract. LPAs should note that *Buy American* certification is not the same as *Buy America* certification, and the former is not acceptable on federal-aid highway projects.



The Buy American Act of 1933 and Section 1605 of the American Recovery and Reinvestment Act of 2009 have “Buy American” requirements similar to the Buy America Program requirements. However, the three pieces of legislation have varying definitions of American-made goods and they apply in different cases. LPAs should note that *Buy American* certification is not the same as *Buy America* certification, and the former is not acceptable on federal-aid highway projects. The Buy America Program applies to transportation projects funded by FHWA and FTA, and Buy American-made goods cannot be incorporated into a FHWA project.

Buy America Waivers

Buy America requirements may be waived under limited circumstances on a project-by-project basis. Waivers must be approved by the U.S. Department of Transportation Secretary of Transportation. For more information about requirements and waivers, see the Buy America section of FHWA’s *Construction Program Guide* (a link to that guide is provided in the Resources list at the end of this chapter). LPAs may also contact the ADOT project manager for further guidance.

Cost and Price Analyses

The Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments (referred to as the Common Rule) requires that the recipient of federal-aid funds must perform a cost or price analysis in connection with every procurement action, including contract modifications (49 CFR 18.36). For federally funded projects, a cost analysis with an independent cost estimate must be performed by the ADOT resident engineer (for ADOT-administered projects) or the LPA’s person in responsible charge (for self-administered and Certification Acceptance projects) when the consultant or contractor is required to submit the elements of their estimated costs (e.g., under contractor or architectural and engineering consultant services contracts or contract modifications).

The analysis should evaluate the separate cost elements of the procurement action to support reasonableness of the negotiated price. If appropriate, the LPA may document price reasonableness by a comparison with average unit bid prices. The analysis should address the impact of the change on the critical path and the need for contract time extensions. A cost analysis is required for contracts, contract modifications, or change orders when adequate price competition is lacking and for sole source procurements, unless price reasonableness can be

established. The cost analysis must evaluate the proposed cost data, the projections of the data, and the separate cost and profit elements of the contract, contract modification, or change order to support price reasonableness. The cost analysis should address the impact of the change on the critical path and the need for contract time extensions, if applicable.

A cost analysis is not needed if a price analysis has established reasonableness of the negotiated price. This price analysis can be done through comparison with a catalog or market price of a commercial product sold in substantial quantities to the general public, average unit bid prices, or prices set by law or regulation.

LPAs should contact the ADOT district engineer for more information on requirements for cost or price analyses. LPAs may also refer to section 109.04 Adjustments in the Contract Price in the ADOT *Construction Manual* for more guidance on the process for cost analyses (see the Resources list at the end of this chapter).

Public Interest Findings

Per 23 CFR 635.411, federal-aid funds may not be used "for any premium or royalty on any patented or proprietary material, specification, or process" unless specific conditions are met. FHWA's policies are based on statutory and regulatory requirements developed to ensure competitiveness and best serve the public interest; however, there may be certain unique situations where it is in the public interest to deviate from such requirements. These instances are rare since a public interest finding (PIF) (or cost-effectiveness) determination is an acknowledgment that the needs of the public will be better served by not following policy.

Public Interest Finding Request

For all federally funded self-administered and Certification Acceptance projects, if an LPA wishes to deviate from standard requirements, to sole source a product, or both, the LPA must seek a PIF determination, which must be approved by FHWA or ADOT. FHWA approves blanket PIFs for all projects and project-specific PIFs for full-oversight projects; ADOT approves project-specific PIFs for all projects that are not full-oversight. Depending on the project's oversight delegation (i.e., full oversight or state delegated), FHWA or ADOT may approve PIFs as a last resort to be used in the following areas in accordance with the *FHWA and ADOT Stewardship and Oversight Agreement for Arizona*:

- ▶ Use of patented or proprietary products when no other equivalents are available
- ▶ Use of materials/equipment furnished by ADOT or from sources designated by ADOT
- ▶ Use of a contract-award method other than competitive bidding (including sole sourcing)

All PIF requests must be accompanied by a written justification and appropriate supporting documentation (e.g., a cost-benefit analysis, discussion of product compatibility, or discussion of logistical concerns).

Federally funded installation by an LPA is not eligible for a PIF unless the competitive bidding process returned no responsive bids and a detailed cost comparison is completed per FHWA Order 5060.1; LPAs should contact their ADOT project manager for further guidance.

Construction Duration/Schedule

The duration of the construction phase will vary depending on a project's size and complexity; however, adherence to the project schedule is an important part of a project's success. The contractor must complete all project requirements within the authorized number of construction days. An important component of maintaining the schedule is monitoring the contractor's activities and status and making all development-related decisions in a timely manner. A proposed schedule must take into account any notifications required in the contract, seasonal considerations (paving windows), and proper durations as required by the work to be completed (e.g., wait time before striping can be applied to asphalt). Self-administered and certified LPAs, through their contractors, are responsible for adhering to the contract schedule.

Quality Assurance

QA is the overall program or plan for the systematic monitoring and evaluation of various aspects of a project, service, or facility necessary to ensure that standards of quality are achieved. Federal requirements for QA procedures during the construction phase for projects on the NHS, which are outlined in 23 CFR 637B, require ADOT to provide a QA program for construction activities. The ADOT Construction Group's Construction Operations Section and Value Analysis Section, which together compose ADOT's Value and Quality Assurance team, oversee ADOT's construction QA program. ADOT's QA program applies to projects on and off the NHS. The Construction Operations Section performs construction inspections, maintains quantified checklists and the workmanship database, manages construction training, and provides statewide professional landscape architectural services. The Value Analysis Section is responsible for maintaining the ADOT *Construction Manual*, as well as for performing VE (value engineering) services.

ADOT's Value and Quality Assurance oversees and enforces QA program requirements, which include implementation of QC activities by the project contractor. The contractor is responsible for implementing QC activities and ensuring compliance with all applicable federal, state, and local regulations during construction activities. For ADOT-administered projects, ADOT directly oversees the contractor. However, for self-administered and Certification Acceptance projects, LPAs are responsible for the performance of the contractor. The LPA must also hire separate consultants to conduct independent assurance of QA activities and separate ADOT-approved laboratories to perform independent assurance of QA activities for materials. The ADOT resident engineer or the ADOT Construction Operations Section will conduct random inspections of Certification Acceptance and self-administered projects to ensure that project construction is being conducted in accordance with all ADOT standards, specifications, plans, and contract documents. If asked, ADOT will provide a one-time QA process review as a courtesy to the LPA.

For more information on ADOT's QA procedures during construction, refer to the Control of Work and Control of Materials sections in the ADOT *Construction Manual*.

Inspections and Materials Testing

Personnel Certifications and Training

Self-administering and certified LPAs are responsible for ensuring that all inspection and testing staff have the required certifications and training to conduct their assigned roles and duties. LPAs should contact the ADOT Materials Group for personnel certification requirements. Similarly, all laboratories must be properly certified to complete the project materials-testing activities. A list of laboratories that meet ADOT's certification requirements is available on the Materials Group QA website (see the Resources list at the end of this chapter for a link to that site).

Inspections

Project inspections are important QC components of a QA program. LPAs must monitor and inspect all aspects of project construction and must assume responsibility for QA. All projects are required to conduct inspections on ongoing construction activities, other QC elements, and work practices, as well as to conduct a review of past inspection findings and on-site records for corrective action as warranted. Reliance on contractors to self-report achievement of performance objectives and criteria (i.e., warranty) for the entire project is not acceptable on federal-aid projects; warranties for a specific construction product or feature are only acceptable if certain conditions are met (see the Warranties section in Chapter 14, Final Acceptance, for more information on contractor warranties). Additionally, LPAs must also ensure that independent QA inspections and materials testing occur during construction. Inspection frequencies, documentation of field activities, and recordkeeping must be performed within the timetables and in accordance with the protocols for each activity as identified in the LPA's QA plan to be submitted and approved by the ADOT Construction Group. It is recommended that inspections include photo-documentation of work in progress, as well as safety conditions found on site.

For more information on inspections, LPAs should refer to the ADOT Construction Manual, Section 105.11, Authority and Responsibility of Project Supervisor and Inspectors, and Section 105.12, Inspection of Work.

In addition, other documents typically used by ADOT that may be of use to LPAs include the following:

- ▶ ADOT Construction Inspection Quantlists
- ▶ Stormwater compliance inspection reports (found in the ADOT SWPPP Template)
 - Construction Site Inspection Log
 - Stormwater Monitoring Log
 - Compliance Evaluation Report
- ▶ ADOT *Stormwater Monitoring Guidance Manual for Construction Activities*, which includes guidance for all permitted construction activities that are within ¼ mile of a unique or impaired water, or any sensitive project as deemed necessary by ADOT

Refer to the Resources list at the end of this chapter for links to the above documents.

**CALENDAR
WATCH**

If requested by the ADOT project manager during construction activities, the LPA must provide inspection reports within 7 days of the request.

Final Walk-Through and Inspection

At the completion of construction activities, a final walk-through and inspection must be conducted to ensure that the project was completed in accordance with the approved contract documents and federal-aid requirements. The inspection will identify any issues that need to be resolved before receiving final acceptance. The ADOT resident engineer (for ADOT-administered projects) or the LPA's person in responsible charge (for self-administered and Certification Acceptance projects) must coordinate with the ADOT district engineer, ADOT Bridge Group (if applicable), designer of record, and FHWA area engineer (as needed) to conduct the final walk-through and inspection (see Chapter 14, Final Acceptance, for additional information). FHWA retains the right to request additional inspections, measurements, or tests to verify opinions or to satisfy concerns (see 23 CFR Subsections 1.5 and 1.36). In the case of disagreement about the acceptability of the completed work, the LPA should refer the matter to the ADOT project manager and implement the escalation steps identified in the LPA's QA plan.

Materials Testing and Certifications

Projects receiving federal-aid funding are subject to FHWA policies, procedures, and guidelines as defined in 23 CFR 637. All federal-aid projects must comply with the federal criteria, regardless of whether the project is ADOT administered, self-administered, or administered by a certified LPA. The LPA must also meet all materials certification requirements outlined in the ADOT *Materials Testing Manual*. Full reimbursement of federal-aid funds depends on construction materials meeting their applicable certification requirements. LPAs whose materials do not meet the certification requirements may be responsible for costs associated with securing compliant replacement materials. Additional information on materials testing can be found in Chapter 12, Materials Report Clearances. LPAs should also refer to the Materials Group's materials manuals and the Materials Group QA website (see the Resources list at the end of this chapter).

**CAUTION**

The use of materials that do not meet applicable certification requirements, including those under the Buy America Provisions, could jeopardize federal-aid reimbursement for all project costs, not just the costs for the materials that do not comply. All certifications must be kept as proof of source documentations.

Records Review

Inspections of records should include documentation of records organization and proper filing. Records that are commonly inspected include the following:

- DBE
- Labor compliance
- Equal Employment Opportunity (EEO) wage-rate posters
- Federal training requirements
- Prompt payment
- Traffic control
- Safety
- Environmental commitments
- SWPPPs
- Materials-testing reports
- Progress payment
- Employee compliance interviews
- Pre-construction minutes
- Contractor project schedule
- Public notifications
- Daily diaries
- Independent assurance records
- Potential claim documentation
- Change orders and force accounts

Construction Staking and Surveying

ADOT is responsible for ensuring that LPA projects are built properly and in compliance with federal laws and regulations. As authorized in 23 CFR 1.11(b), ADOT is allowed to “utilize, under its supervision, the services of consultants for making surveys, preparing plans, specifications, and estimates, and for supervising the construction of any project.” However, hiring a construction management or administration consultant does not release certified and self-administering LPAs from liability that may be associated with potential errors, overruns, design flaws, structural failures, or other issues resulting from providing construction staking and surveying. Approval from FHWA is required before an LPA can hire a consultant to act in a management role on a given project, per 23 CFR 172.9.



Per 23 CFR 635.105, ADOT is responsible for construction of federal-aid projects, whether the project is ADOT administered or the LPA performs the work. Although an LPA can hire a consultant to act in a management role on a given project with approval from FHWA (23 CFR 172.9), the person in responsible charge must be a full-time LPA staff member (not a consultant).

Utility Locating

According to ARS 40-360.22, the location of underground utilities within public ROWs, alleys, and utility easements, as well as in expressed or implied private utility easements or in any apartment community or mobile home park, must be determined before excavation can begin. For projects that are not administered by ADOT, LPAs must contact Arizona Blue Stake to initiate the process of locating utilities in Arizona's public ROWs (see Appendix A for contact information). Private property owners must be contacted in accordance with ARS 40-360.22. Blue Stake does not mark the locations of utility drops to private residences, which could be problematic when working in alleys.

Supplemental Agreements: Letters of Agreement, Change Orders, and Force Accounts

Construction projects often involve field changes as a result of discovery situations, new information regarding physical conditions, or detected plan errors. If a change to a project's plans, specifications, cost, or time is needed, an amendment to the original contract will be required. Section 109.04 of the ADOT *Construction Manual* speaks to supplemental agreements:

Supplemental agreements are used to make changes to ADOT construction contracts. They change work in the contract and adjust the contract cost accordingly. They CREATE new pay items or INCREASE, or DECREASE existing pay items or quantities. Supplemental agreements, specifically Change Orders, may also be used to change or waive specifications or ADD days to contract time, even when there is no effect on contract costs. Bid Items are never deleted; quantities are adjusted to zero.

When signed by the Contractor and the Resident Engineer, supplemental agreements are binding legal documents that supplement the original contract.

There are three types of supplemental agreements that may be used for construction contracts: letters of agreement, change orders, and force accounts.

Letters of Agreement

A Letter of Agreement is a simple supplemental agreement for additional work performed when it is less than \$10,000. It is not used for changes to the design plans or specifications, or for adding days to contract time.

Change Orders

A change order is a document generated during the project's construction phase to change contract requirements to address either a change in costs, time, or both. This type of supplemental agreement is more involved than a letter of agreement because it requires supporting documentation, such as a detailed cost analysis, revised design details, and plan sheets. While there may be no way to avoid potential change orders, LPAs need to maintain a close working relationship with ADOT administrators working on their construction projects so that potential change-order situations are identified as soon as possible, thereby providing LPAs the opportunity for timely decisions and active participation in the change-order approval process.

Major and Minor Change Orders

ADOT and the FHWA divide change orders into two categories, major and minor. For federally funded LPA projects, a major change order is defined as one that meets any one or more of the following conditions:

- ▶ Alters the scope of the work
- ▶ Is outside the limits of the environmental clearance
- ▶ Creates any new pay items with a total value greater than \$25,000
- ▶ Modifies any major item of work (as defined in Section 101.02 of ADOT's *Standard Specifications for Road and Bridge Construction*) by increasing it to more than 125% or decreasing it to less than 75% of the original quantity of that major item
- ▶ Changes the total contract value by 20% of the original contract

If the change does not meet any of the listed conditions, the change is considered minor. Major and minor changes both require change orders to the original contract. For more information on change orders, see Section 104.02 Revisions to the Contract of ADOT's *Standard Specifications for Road and Bridge Construction* and 23 CFR 635.109.

FHWA is responsible for reviewing and approving all major change orders (as defined above) on federal-aid projects, as well as minor change orders on all full oversight projects (i.e., those with federal-aid numbers denoted by "S" or "F"). ADOT reviews and approves all minor change orders on ADOT-administered projects that are state delegated (i.e., those with federal-aid numbers denoted by "T"), but must follow FHWA regulations when administering federally funded projects. ADOT has delegated authority to the LPA to review and approve minor change orders for self-administered and Certification Acceptance projects (i.e., those with federal-aid numbers denoted by "D"). Change orders must be submitted to the applicable ADOT district engineer for review. If the change order is not compliant with federal laws and regulations, the LPA may be asked to make the change order nonparticipating and the LPA would have to fund the change order.

For more information on FHWA and ADOT oversight roles, LPAs should refer to Chapter 2, ADOT Administration; Attachment 3-1, LPA Responsibility Chart: ADOT Administration versus Self-Administration; and Attachment 4-1, LPA Responsibility Chart: ADOT Administration versus Certification Acceptance. LPAs can also contact the ADOT project manager for further guidance.



FHWA approval is required before conducting the work for all major change orders for those costs to be eligible for reimbursement with federal-aid funds. For minor changes and minor extra work to ADOT-administered projects, formal approval from FHWA is necessary but may be given retroactively at the discretion of ADOT and FHWA.

Major change orders may require competitive bidding (23 CFR 635) to be eligible for federal-aid reimbursement. ADOT and FHWA will consider reimbursement of major change orders based on changes in work elements of the contract, impacts on cost and quantities, changes in the complexity of work, cumulative impact on the project, or whether the public would benefit more from competitive bids than from negotiations with the project contractor. ADOT's process and procedures for addressing change orders are described in the ADOT *Construction Manual* and ADOT's *Standard Specifications for Road and Bridge Construction* (see the Resources list at the end of this chapter for links to those resources).



The LPA must perform a cost or unit price analysis in connection with every procurement action, including contract modifications or change orders (49 CFR 18.36[f]). For more information on requirements for cost or price analyses, see the Cost and Price Analyses section in Chapter 13, Construction.

For self-administered and Certification Acceptance projects, change orders must be in writing and signed by the LPA engineer or the LPA consultant's resident engineer before being approved by the LPA's person in responsible charge. For ADOT-administered projects, change orders must be in writing and must be approved by the ADOT district engineer. Change-order price adjustments must be calculated using the unit prices contained in the construction contract (bid tabs) or subsequently approved contract changes. In some cases, for expediency or efficiency, a letter of agreement for minor changes or additional work less than \$10,000 can be given by ADOT.



LPAs should be knowledgeable of the limitations of the federal-aid funding source used for the project before considering any change-order requests; there may be circumstances in which federal participation in some or all of the change-order work is precluded.

Federal-Aid Eligibility for Change Orders

Costs related to change orders may be reimbursed with federal funds if eligible. However, additional project costs due to decision-making delays caused by the LPA are the responsibility of the LPA. All change orders for projects that are not full-oversight will be reviewed by ADOT for federal-aid eligibility, and only eligible expenses will be

accepted for reimbursement. FHWA will review and approve full-oversight projects for eligibility (for more information on FHWA and ADOT oversight roles, see Chapter 2, ADOT Administration; Attachment 3-1, LPA Responsibility Chart: ADOT Administration versus Self-Administration; Attachment 4-1, LPA Responsibility Chart: ADOT Administration versus Certification Acceptance; as well as the *FHWA and ADOT Stewardship and Oversight Agreement for Arizona* referenced in the Resources list at the end of this chapter).

ADOT will review a change order for the following four criteria to determine whether it is eligible for reimbursement:

- Federal-aid eligibility
- Impact on the original scope of work as identified in the construction contract
- Basis of payment
- Time adjustments

Submitting complete supporting documentation is critical for ADOT to make a determination on eligibility of a change order.

Impact of Change Orders on the Original Scope of Work

The PS&Es, and subsequently authorized change orders, define the scope of work on a project. Change orders that include activities in excess of the original scope may be considered for reimbursement only after a cost analysis (including time, as applicable) has been completed for each change order and after a change to the project agreement has been accepted by ADOT and FHWA. This includes additions to a project that provide enhancements or benefits beyond the original scope of work but at no additional cost.



LPAs should keep in mind that changes in the scope of work that extend beyond the project's original footprint will require supplemental reviews and clearances to assess items such as environmental resources, utilities, and ROWs.

Force-Account Work

Force-account work, except for those items designated in the contract, should only be used as a last resort when:

- An agreement cannot be reached on the price of a new work item
- The extent of the work is unknown
- The work is of such character that a fair price cannot be determined to a reasonable degree of accuracy

This type of supplemental agreement can be particularly complex compared to a change order. In addition to including the supporting documentation of a change order, it also requires diligent record keeping once the force account work begins. A cost analysis must be performed and documented for every force-account proposal. ADOT, LPA, or both will determine what the extra work will cost and will prepare approval documentation before the work takes place. *Force account* means the direct performance of highway construction work by ADOT, a

county, a railroad, or a public utility company by use of labor, equipment, materials, and supplies furnished by them and used under their direct control. This type of supplemental agreement compensates the contractor for verifiable time and materials used.

Should approval be given to perform the extra work by force-account, the contractor will be responsible for recording labor, equipment, rentals, direct charges, and materials for that work identified in the force account. Additionally, an LPA representative (i.e., person in responsible charge) must be present to document the actual work being performed. ADOT-administered and self-administered projects must comply with ADOT's *Standard Specifications for Road and Bridge Construction*, Subsection 104.09(D), and the ADOT *Construction Manual*. ADOT's Field Reports Section also has an online form that may be used by LPAs to document labor and expenses associated with force-account activities (see the Resources list at the end of this chapter).



A cost analysis must be performed and documented for every force-account proposal; the method and degree of analysis are the LPA's decision, along with obtaining ADOT's review and recommendation, but FHWA must agree in order for the work to be reimbursable.

Time Adjustments

Except where FHWA has full oversight of a project, the district engineer must approve change orders for time extensions on ADOT-administered projects. The LPA approves change orders for time extensions for self-administered or Certification Acceptance projects. For more information on FHWA and ADOT oversight roles, LPAs should refer to Chapter 2, ADOT Administration; Attachment 3-1, LPA Responsibility Chart: ADOT Administration versus Self-Administration; and Attachment 4-1, LPA Responsibility Chart: ADOT Administration versus Certification Acceptance (see also the *FHWA and ADOT Stewardship and Oversight Agreement for Arizona* referenced in the Resources list at the end of this chapter). A construction schedule which identifies critical path or controlling items of work is a necessary part of a construction contract; it is normally stipulated in the PS&Es that the contractor must develop and maintain a schedule to plan and control time expenses on the project. Time adjustments are only eligible for delays affecting a project's critical path or controlling items of work.

Project PS&Es should identify exceptional events that are beyond the contractor's control and would warrant an extension of contract time. Exceptional events may include a labor strike, public protests (to or of the project), a general riot, declaration of war, "acts of God," and traffic accidents (e.g., hazardous spills).

Events that do not warrant a time extension and are not deemed reimbursable by FHWA include shutdowns for maintenance, breakdowns, suspensions or stop-work orders for a violation of safety or pollution regulations, shutdowns for construction accidents, and material delays.

Delays in materials and delivery to the project are the contractor's responsibility and are not reimbursable through a change-order or force-account item. However, unusual market conditions such as nationwide shortages or industry strikes (materials or personnel) may be eligible for a time delay. Conditional clearance delays resulting from ROW, utility, or railroad issues will not be eligible for time extensions or federal reimbursement.

Documentation

Recordkeeping and documentation should be one of the most diligently executed tasks on federally funded projects. In accordance with ARS 35-214, records must be retained for a minimum of 5 years following FHWA closeout of the project in the FMIS. For ADOT-administered projects, the ADOT resident engineer will maintain project records. For self-administered and Certification Acceptance projects, the LPA is responsible for maintaining project records. Certified and self-administering LPAs should develop a system of recordkeeping and retention to meet federal criteria.

LPAs should contact ADOT's Field Reports Section early in their projects to coordinate the recordkeeping and documentation necessary for federal-aid transportation projects. Chapter 12 Records and Reports of the ADOT *Construction Manual* also contains sample reports and records to be retained to comply with FHWA reimbursement requirements (see the Resources list at the end of this chapter for a link to that manual). Record retention is the key mechanism for full and timely reimbursement, as well as being a federal requirement.



Project work must be properly documented, including the quality and the quantities of the work, to justify federal reimbursement.

Chapter 14, Final Acceptance, provides a list of documentation that should be completed throughout the life of the construction phase and for project closeout. Final documentation must be in accordance with, and retained as specified in, ADOT's *Standard Specifications for Road and Bridge Construction*, Subsections 104.09 and 105.20.

As-Built Plans

As-built plans are the final set of construction plans that show improvements as ultimately constructed. These plans are generated upon completion of project construction and they often differ from the "as-bid" PS&Es due to changes made "in the field" during the construction and landscaping phases of a project. Self-administering and certified LPAs are responsible for ensuring that all redlines and as-built plans have been properly recorded. For ADOT-administered projects, the ADOT resident engineer will complete the redlines and as-built plans.

During construction, modifications to the PS&Es may occur and redlines must be used to document these modifications. Redlines are used to create as-built plans of work constructed within 500 feet of new or existing ROW and are therefore drawn to scale with explanations and references. An LPA has 45 days following approval of the final acceptance letter to review and compile all of the construction-generated redlines before sending them to the as-built designer (i.e., prime consultant professional engineer). The as-built designer will review the redlines for legibility and accuracy, address any discrepancies, resolve any concerns, and establish a schedule for completion of the as-built plans. The as-built designer must complete and submit the as-built plans within 60 days of receiving the redlines.



CALENDAR WATCH

LPAs have 45 days following approval of the final acceptance letter to review and compile all of the construction-generated redlines before sending them to the as-built designer. The as-built designer must complete and submit the as-built plans within 60 days of receiving the redlines.

As-built plans must document all changes, including extra or deleted work, all in-field modifications, and any utility or irrigation systems found or abandoned. This documentation is extremely valuable to record the physical placement of installed items for future reference and for proper long-term maintenance. As-built plans should incorporate the work completed by all subconsultants and subcontractors involved in the construction phase.



The LPA must designate a single set of plans for recording redlines for the entire construction phase. As-built plans should extend 500 feet outside new or existing ROW.

The as-built plans must include a completed Field Red-Lines Quantlist, which is available on the ADOT Quantlist Application. Project information must be completed on the Plans Face Sheet. “Constructed by,” “redlines by,” and “as-built by” documentation should be reflected on the drawings and on the Plans Face Sheet. The as-built plans must be signed by the ADOT resident engineer or the LPA’s person in responsible charge and submitted to ADOT project manager as part of project closeout (see Chapter 14, Final Acceptance, for more details).

ADOT-administered projects must follow the process established in the ADOT *Construction Manual*. That manual includes a Red-Line Drawings/As-Built Plans Flowchart that illustrates this process. Additionally, ADOT’s process for as-built preparation is identified in the *Red-Line and As-Built Procedure and Guidelines* (see the Resources list at the end of this chapter). Certified and self-administering LPAs produce as-built plans in accordance with their approved QA plan. For projects that involve bridge work, self-administering and certified LPAs must submit as-built plans, along with the design plans, load ratings, and construction costs (bid tabs), for any structure included in the project to the ADOT Bridge Group. ADOT will submit the documents to the Bridge Group for ADOT-administered LPA projects. Chapter 14, Final Acceptance, details project closeout procedures for LPA projects.

If a project crosses or impacts property owned or maintained by the Central Arizona Water Conservation District or the Maricopa Water District, LPAs should consult the project specifications for specific as-built requirements.

Final Contractor Payments and Project Closeout

Although partial reimbursement occurs throughout the project development process, full federal-aid reimbursement cannot be sought for ADOT-administered, self-administered, or Certification Acceptance projects until FHWA has approved that the construction is complete and a final walk-through has been performed. See Chapter 14, Final Acceptance, for details about final inspections and Chapter 17, Financial

Management/Reimbursement, for more information about reimbursement procedures. The final inspection will identify any issues that need to be resolved before receiving final acceptance.

Chapter 14, Final Acceptance, of this manual and Section 1207, Final Records and Reports (Project Closeout), of the ADOT *Construction Manual* provide more information on project closeout and contractor payments. See the Resources list at the end of this chapter for a link to the ADOT *Construction Manual*.

Issue Resolution

Claims

ADOT, the LPA, and the contractor share in the responsibility for claims. Continued demand for additional compensation is termed a claim if it has been previously denied under ADOT's normal procedures for change-order approval. Thorough reviews of the contract documents, both in preparations of the project and in bidding the project, can assist in avoiding most claims.

The burden of proof to document the reasonableness of a claim remains vested in ADOT. For non-NHS projects, ADOT may determine the level of federal-aid participation based on ADOT procedures; however, ADOT must comply with the allowable OMB cost principles addressed in 49 CFR 18.22 and 2 CFR 225 (formerly OMB Circular A-87).

For additional information regarding claims, refer to the *ADOT Standard Specifications for Road and Bridge Construction*, Section 105.21, Administrative Process for the Resolution of Contract Disputes (see the Resources section at the end of this chapter).

Partnering

LPAs may use partnering to foster changes in the attitude and working relationship between the LPA and the contractor. The ADOT Construction Group has implemented partnering during ADOT-administered construction projects with great success, typically saving all parties additional expenses in change orders, overruns, escalations, claims, and even litigation. ADOT views a construction project as a partnership. The ADOT *Construction Manual* identifies partnering as an effective tool to achieve a win-win scenario for all parties, including LPAs and their contractors. FHWA supports partnering; members of FHWA and applicable ADOT sections are to be invited to partnering sessions. Typically, a partnering session:

- Occurs in conjunction with or before the pre-construction meeting
- Identifies who will be responsible for resolutions of disputes, change orders, escalation process and contacts, inspection, and document submittals
- Clearly defines project-specific special considerations and issues

Escalation Process

The ADOT escalation process must be followed on all ADOT-administered projects. Certified and self-administering LPAs must have their own ADOT-approved process to address construction escalation and may elect to use the ADOT model as a template. The ADOT *Construction Manual* defines four basic rules of

escalation, which are shared in the initial project partnering meeting. Under ADOT's model, matters of escalation are determined on the basis of discovery of a problem and should be addressed weekly. The four steps in the ADOT escalation process are as follows:

1. Resolving problems at the lowest possible level of authority. Project team members should be empowered to use their knowledge and experience to evaluate the facts and to make a decision.
2. Escalating a problem promptly if it cannot be resolved at the first level to avoid project delays or creating animosity between project participants.
3. Adhering to authority levels and providing participants at each level with a proper opportunity to work through an issue. Authority levels cannot be "jumped."
4. Ignoring the problem or failing to make a decision is not acceptable. When an escalated issue is resolved, the ADOT resident engineer should explain the resolution to the field staff so that all involved parties understand the reasons behind it.



The absence of an escalation clause in a construction contract may negate FHWA's legal authority to retroactively revisit or reimburse cost overruns from unsettled labor/material disputes. Escalated issues should be resolved during the project, not afterward.

Civil Rights Compliance

ADOT is committed to implementing and obtaining compliance with all civil rights programs to ensure nondiscrimination and, as a primary recipient of federal-aid funds, has the responsibility for monitoring for compliance on federally funded transportation projects.

See Chapter 16, Civil Rights, for information regarding the responsibilities of ADOT and the LPA to ensure civil rights compliance during construction.

Recordkeeping and Reporting

Certified and self-administering LPAs are fully responsible for all recordkeeping and reporting on LPA projects. ADOT will prepare and keep all records and documentation on ADOT-administered projects in accordance with the provisions of 23 CFR 18 and ADOT and FHWA requirements. In accordance with ARS 35-214, records must be retained for a minimum of 5 years following FHWA closeout of the project in the FMIS.

Roles and Responsibilities

For ADOT-administered projects, ADOT is responsible for administration and oversight of construction activities. LPAs are responsible for construction administration for self-administered and Certification Acceptance projects; however, ADOT remains responsible for oversight (Table 13-1). LPAs are required to follow all applicable ADOT

and FHWA policies and procedures for project activities that receive federal-aid funds, regardless of whether the project is administered by ADOT or the LPA.

Table 13-1 Roles and Responsibilities for Construction—Self-Administered and Certification Acceptance Projects

Task	LPA	ADOT	FHWA
Advertise, bid, and award contract	Advertise the project for bid following approval of 100% PS&E package; review bids and award contract; forward the executed contract to ADOT for full-oversight projects	Review and approve final PS&E package; provide guidance/assistance, as necessary	Authorize funds for construction; receive the executed contract for full-oversight projects
QA of construction activities	Contract consultant to conduct independent assurance of QA activities; oversee construction phase	Provide a one-time QA process review, if requested by LPA	N/A
Federal authorizations	Request federal authorizations	Reviews and submits request to FHWA	Approves
Local and state permits (ROW, and utility not previously provided by ADOT)	Obtain all applicable permits, or delegate contracted construction operators to do so	Reviews	N/A
Construction administration	Oversee construction phase operations	Review and monitor	Ensure compliance
Required Contract Provisions (FHWA Form 1273)	Comply	Review and confirm	N/A
Davis-Bacon Act, Copeland Act, CWHSSA	Comply	Review and confirm	N/A
Buy America	Comply	Review and confirm	N/A
PIF	Request PIF, as needed, to deviate from federal regulations	Approve/reject PIF requests for projects that are not full-oversight	Approve/reject PIF requests for full-oversight projects and for blanket PIFs
Contract-schedule adherence	Maintain schedule	N/A	N/A
Inspections and certified inspectors	Obtain and/or delegate contracted construction operators; conduct inspections	Review inspection reports; conduct random inspections	N/A
Final walk-through and inspection	Initiate final walk-through and inspection	Attend final walk-through and inspection	Attend final walk-through (optional)
Materials testing	Comply with state and federal requirements; maintain records	Review and confirm	N/A
Construction staking/survey	Conduct surveys or hire consultant; contact Arizona Blue Stake or private property owners to locate utilities	N/A	N/A
Change orders	Approve for minor changes for self-administered and Certification Acceptance projects (i.e., those with federal-aid numbers denoted by "D"); submit major change orders to ADOT and FHWA for approval; maintain records	Review and approve/deny for all minor changes on ADOT-administered projects that are not full-oversight (i.e., those with federal-aid numbers denoted by "T")	Review and approve/deny for all major and minor changes on full-oversight projects (i.e., those with federal-aid numbers denoted by "S" or "F") and all major changes on projects that are not full-oversight (i.e., those with federal-aid numbers denoted by "T" or "D")

Task	LPA	ADOT	FHWA
Construction contractor payment	Invoice ADOT	Request reimbursement from FHWA; reimburse LPA	Make reimbursement to ADOT
Final LPA reimbursement	Prepare final construction package and invoice	Validate final quantities and produce final voucher report	Review and approve/deny
Project recordkeeping	Maintain records for a minimum of 5 years after FHWA closeout of the project in the FMIS (ARS 35-214)	Maintain records for a minimum of 5 years after FHWA closeout of the project in the FMIS	N/A

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RESOURCES

ADOT Bridge Inspection Guidelines

<http://www.azdot.gov/business/engineering-and-construction/bridge/guidelines/guidelines-bridge-inspection>

ADOT Construction Group Website

<http://www.azdot.gov/business/engineering-and-construction/construction>

ADOT Construction Group, Certified Payroll Reporting

<http://www.azdot.gov/business/engineering-and-construction/construction/field-reports/certified-payroll-reporting>

ADOT Construction Group, Field Reports Section Forms

<http://www.azdot.gov/business/engineering-and-construction/construction/field-reports/forms>

ADOT Construction Manual

<http://www.azdot.gov/business/engineering-and-construction/construction/ConstructionManual/construction-manual>

ADOT Construction Manual Forms (including Chapter 12 ~ the Force Account Daily Report)

<http://www.azdot.gov/business/engineering-and-construction/construction/ConstructionManual/forms>

ADOT Frequently Asked Questions, ADOT Quantlist Application

<http://www.azdot.gov/docs/business/frequently-asked-questions.pdf?sfvrsn=0>

ADOT Introduction to Quantlist for Construction Inspection

<http://www.azdot.gov/business/engineering-and-construction/construction/quantlists>

ADOT Materials Group

<http://www.azdot.gov/business/engineering-and-construction/MaterialsGroup>

ADOT Materials Group Materials Manuals

<http://www.azdot.gov/business/engineering-and-construction/MaterialsGroup>

ADOT Materials Group Quality Assurance

<http://www.azdot.gov/business/engineering-and-construction/MaterialsGroup/quality-assurance>

ADOT Materials Testing Manual – Series 900

<http://www.azdot.gov/business/engineering-and-construction/MaterialsGroup/materials-manual-info/MTM/Series900>

ADOT Materials Testing Manual – Series 1000

<http://www.azdot.gov/business/engineering-and-construction/MaterialsGroup/materials-manual-info/MTM/Series1000>

ADOT Red-Line and As-Built Procedure and Guidelines

<https://www.azdot.gov/docs/business/redlines-and-as-built-procedures-and-guidelines.pdf?sfvrsn=0>

ADOT Standard Specifications for Road and Bridge Construction

<http://www.azdot.gov/docs/business/2008-standards-specifications-for-road-and-bridge-construction.pdf?sfvrsn=0>

ADOT Stormwater Monitoring Guidance Manual for Construction Activities

<https://www.azdot.gov/docs/planning/stormwater-monitoring-guidance-manual-for-construction-activities.pdf?sfvrsn=0>

ADOT Stormwater Pollution Prevention Management Plan

<http://www.azdot.gov/docs/default-source/water-quality/statewide-stormwater-management-plan.pdf?sfvrsn=2>

Brooks Act and FHWA Administration of Engineering and Design Related Service Contracts
(23 CFR 172)

<http://www.fhwa.dot.gov/programadmin/23cfr172.cfm>

Federal Transit Administration Circular 4220.1F

http://www.fta.dot.gov/laws/leg_reg_circulars_guidance.html

Federal Transit Administration Frequently Asked Questions on Independent Cost Estimates

http://www.fta.dot.gov/funding/thirdpartyprocurement/faq/grants_financing_6149.html

FHWA and ADOT Stewardship and Oversight Agreement for Arizona

<http://www.fhwa.dot.gov/federalaid/stewardship/agreements/az.cfm>

<http://www.azdot.gov/business/engineering-and-construction/traffic/traffic-safety/stewardship-and-oversight-agreement-for-arizona>

FHWA “Buy America” Section of the Construction Program Guide

<http://www.fhwa.dot.gov/construction/cqit/buyam.cfm>

FHWA Construction Program Guide

<http://www.fhwa.dot.gov/construction/cqit/>

FHWA Construction Program Management and Inspection Guide

<http://www.fhwa.dot.gov/construction/cpmi04d1.cfm>

FHWA Contract Administration

<http://www.fhwa.dot.gov/programadmin/contracts/index.cfm>

FHWA Contract Administration Core Curriculum Participant’s Manual and Reference Guide

<http://www.fhwa.dot.gov/programadmin/contracts/coretoc.cfm>

FHWA Federal-Aid Policy Guide

<http://www.fhwa.dot.gov/legsregs/directives/fapgtoc.htm>

FHWA Federal-Aid Policy Guide as NS G3015.1 Electronic Progress Voucher System

<http://www.fhwa.dot.gov/cfo/pgc/g301501.htm>

FHWA Federal-Aid Policy Guide Non-Regulatory Supplement (23 CFR 635A)

<http://www.fhwa.dot.gov/construction/contracts/0635asup.cfm>

FHWA Form 1273, Required Contract Provisions: Federal-Aid Construction Contracts

<http://www.fhwa.dot.gov/programadmin/contracts/1273>

<http://www.fhwa.dot.gov/programadmin/contracts/1273/1273.pdf>

FHWA Generic Construction Related Review Guidance

<http://www.fhwa.dot.gov/construction/reviews/>

FHWA Memorandum on Preventive Maintenance Eligibility

<http://www.fhwa.dot.gov/preservation/100804.cfm>

Quick Facts about “Buy America” Requirements for Federal-Aid Highway Construction

<http://www.fhwa.dot.gov/programadmin/contracts/b-amquck.cfm>

U.S. Department of Transportation Buy America Website

<http://www.dot.gov/buyamerica/>



CHAPTER 14

Final Acceptance

Introduction

During construction and at the completion of construction activities, the project must be inspected and documentation must be reviewed to ensure that the project has been completed in accordance with the approved contract documents and federal-aid requirements before final acceptance can be obtained. Final acceptance and closeout of the project involves several steps that typically take 1 to 4 months to complete (Figure 14-1). This chapter provides an overview of final acceptance and closeout procedures as they apply to LPA projects.

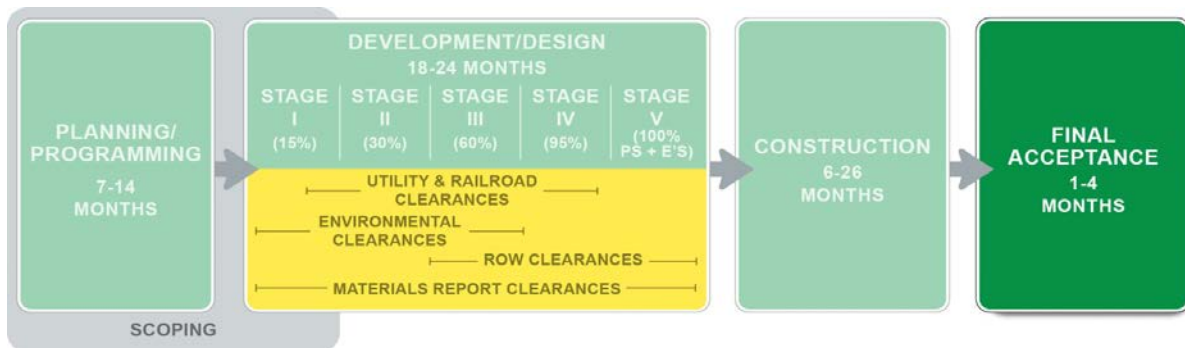


Figure 14-1 Final Acceptance in the Project Life Cycle

Final Acceptance and Project Closeout

Self-Administration and Certification Acceptance

The final acceptance and project closeout process for self-administered or Certification Acceptance projects is summarized in Figure 14-2 and includes the following steps:

- Construction activities must be documented and records must be maintained by the LPA's person in responsible charge.
- During construction, LPAs are required to inspect ongoing construction activities and work practices and to conduct a review of past inspection findings and on-site records for corrective action, as warranted.

- At the completion of construction activities, a final inspection must be performed by the LPA to ensure that the activities have been completed in accordance with the approved contract documents and federal-aid requirements.
- The final acceptance letter must be prepared and signed by the LPA’s person in responsible charge.
- Project closeout documentation must be compiled and reviewed for accuracy and completeness.
- The LPA must prepare a final construction package that includes applicable project closeout documentation and submit the package to ADOT LPA Section who will, in turn, forward it to the ADOT Final Voucher Section.
- ADOT’s Final Voucher Section will reconcile financial data and prepare a final voucher report that will be submitted to FHWA to request final reimbursement of federal-aid funds.
- FHWA will review the final voucher report and send final reimbursement funds to ADOT to administer as appropriate.

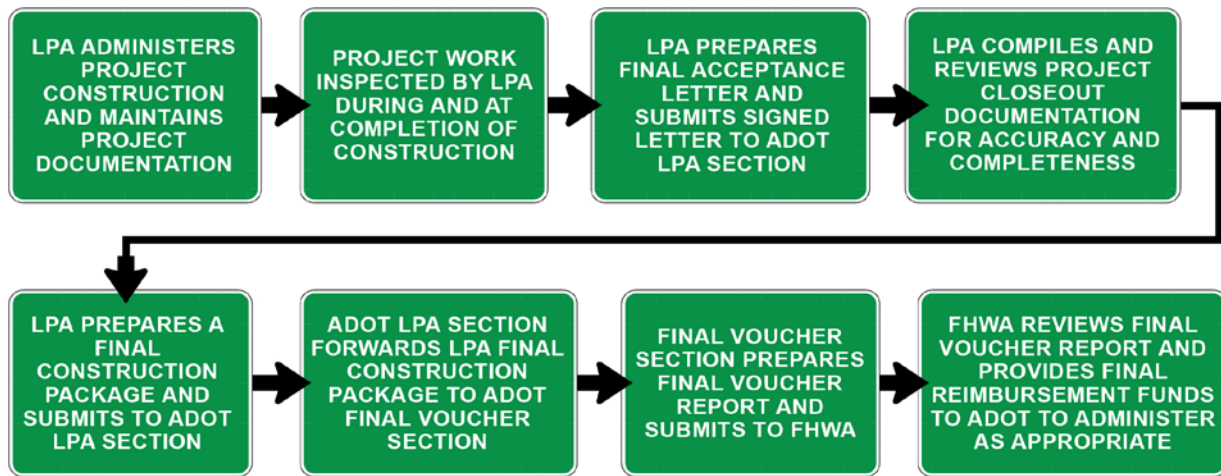


Figure 14-2 Final Acceptance and Project Closeout Process for Self-Administered and Certification Acceptance Projects

ADOT Administration

The final acceptance and project closeout process for ADOT-administered projects includes the following steps:

- Construction activities must be documented and records must be maintained by the ADOT resident engineer.
- During construction, ADOT will inspect ongoing construction activities and work practices and conduct a review of past inspection findings and on-site records for corrective action, as warranted.
- At the completion of construction activities, a final inspection must be performed by ADOT to ensure that the activities have been completed in accordance with the approved contract documents and federal-aid requirements.
- The final acceptance letter must be signed by the ADOT district engineer.
- Project closeout documentation must be compiled and reviewed for accuracy and completeness by the ADOT resident engineer before being submitted to the ADOT Materials Group and Field Reports Section.

- ▶ The Field Reports Section will prepare the final construction package with applicable project closeout documentation and submit it to ADOT Contract Payables and the ADOT Final Voucher Section.
- ▶ ADOT Contract Payables will review the final construction package and then submit final payment reconciliation to the ADOT contractor, as applicable.
- ▶ ADOT's Final Voucher Section reconciles financial data in the final construction package and prepares a final voucher report that will be submitted to FHWA to request final reimbursement of federal-aid funds.
- ▶ FHWA will review the final voucher report and send final reimbursement funds to ADOT.



CALENDAR WATCH

Project funding may be jeopardized if LPAs let their projects become inactive. The most frequent factors that cause projects to become inactive include the failure to invoice and the failure to provide closeout notification. Invoicing should begin within 9 months of the initial authorization and should occur at least every 90 days during the project. LPAs must notify ADOT LPA Section in writing within 60 days of project completion, to avoid having a project classified as inactive. LPAs that do not provide sufficient justification or action regarding a project may lose their federal funding.



CAUTION

For all projects, LPAs are responsible for post-construction operations and maintenance activities, including repairs such as filling potholes. These activities are required for federal-aid-funded projects, in accordance with 23 CFR 633.208.

Closing out of a project involves verifying that all applicable paperwork is complete and that the project was conducted in accordance with the approved contract documents and federal-aid requirements. A project cannot be closed out and final payment will not be provided to the LPA until the ADOT project manager has received the following items:

- ▶ Closeout documentation
- ▶ Final acceptance letter
- ▶ Final construction package
- ▶ Final voucher report

Although partial reimbursement occurs throughout the project development process, full federal-aid reimbursement cannot be sought for ADOT-administered, self-administered, or Certification Acceptance projects until FHWA has approved that the construction is complete and final acceptance has been obtained. See Chapter 3, Self-Administration, or Chapter 4, Certification Acceptance, for a definition of the person in responsible charge; see Chapter 17, Financial Management/Reimbursement, for more information about reimbursement procedures.

Project Closeout Documentation

Documentation required for final acceptance and project closeout includes but is not limited to project contracts, working drawings, all field books, inspectors' records of field tests, engineers' and inspectors' diaries, invoices, weigh bills, quantity tickets, payroll documents, as-built plans, materials certifications, the SWPPP, and any other documentation that provides a basis of payment for work performed or material furnished. LPA project closeout should mirror an ADOT project closeout. For complete project documentation requirements, refer to Chapter 12 of the ADOT *Construction Manual* (see the Resources list at the end of this chapter). In addition, copies of the Finals Cover Sheet and Final Estimate Checklist are included as Attachments 14-1 and 14-2, respectively. Useful information regarding contractor requirements, including required forms, is located on the Contractors' Information and Contractors' Forms pages of the ADOT Construction website (see the Resources list at the end of this chapter). Final documentation must be in accordance with, and retained as specified in, ADOT's *Standard Specifications for Road and Bridge Construction*, Subsections 104.09 and 105.20.

The project closeout documentation must show that the project has been completed in accordance with the approved contract documents and applicable federal-aid requirements; the documentation is required before final federal reimbursements and financial payments can be provided. The party responsible for maintaining project records depends on whether the project was administered by ADOT, self-administered, or administered by a certified LPA.



Project documents are preferred in electronic form, as this provides efficiency in file retention and project closeout.

Self-Administration and Certification Acceptance

The LPA's person in responsible charge retains records on Certification Acceptance and self-administered projects. During the final acceptance process, all applicable project closeout documentation must be verified for accuracy and completeness by the LPA, and then submitted to ADOT LPA Section in the final construction package. Major documents required for final acceptance and project closeout are described in the Select Project Closeout Documentation section below.

ADOT Administration

The ADOT resident engineer retains records if the project is ADOT administered. During the final acceptance process, all applicable project closeout documentation must be verified for accuracy and completeness by the ADOT resident engineer, and then submitted to the ADOT Materials Group and Field Reports Section. The Field Reports Section will prepare the final construction package using the submitted documentation. Major documents required for final acceptance and project closeout are described in the Select Project Closeout Documentation section below.

Select Project Closeout Documentation

As-Built Plans

The preparation of as-built plans is a mandatory activity in the closeout process. ADOT-administered projects follow the process established in the ADOT *Construction Manual*. That manual includes a Red-Line Drawings/As-Built Plans Flowchart that illustrates this process. ADOT's process for as-built preparation is identified in the *Red-Line and As-Built Procedure and Guidelines* (see the Resources list at the end of this chapter for a link to those guidelines). Certified and self-administering LPAs produce as-built plans in accordance with their approved QA plan.

As-built plans are required to be completed by LPAs for all self-administered and Certification Acceptance projects. For ADOT-administered projects, the ADOT resident engineer will complete the as-built plans. For projects that involve bridge work, self-administering and certified LPAs must submit as-built plans, along with the design plans, load ratings, and construction costs (bid tabs), for any structure included in the project to the ADOT Bridge Group; ADOT will submit the documents to the Bridge Group for ADOT-administered LPA projects. See the As-Built Plans section in Chapter 13, Construction, for more information on as-built plans.

Materials Certification

All materials used on the project must conform to the approved PS&Es and project-related documents and must be in compliance with the *ADOT Materials Testing Manual*. When required by the standard specifications or the special provisions for the project, either a Certificate of Compliance or a Certificate of Analysis must be obtained for certain materials or manufactured assemblies before their use. The materials sample checklist, certificate log with all material certifications, material exceptions, and any other required materials documentation for the project must be kept in the project records. For more information on requirements for materials testing and certifications, see the Materials Testing and Certifications section in Chapter 13, Construction, and Section 106.05 (A) and (B) of the *ADOT Standard Specifications for Road and Bridge Construction*.

Buy America Compliance Certification

The Buy America provisions of 23 CFR 635.410 require an LPA, its contractor, or any entity supplying materials for the project to obtain Buy America certification, which documents the domestic manufacturing process used for the steel, iron, and any coatings that will be permanently incorporated into a federally funded construction project. The documentation must be obtained prior to the work being incorporated into the project. This documentation must be kept in the project records. See the Buy America Provisions section in Chapter 13, Construction, for more information. LPA's should consult ADOT C&S for the Buy America stored specification to be included in every executed construction contract.

Warranties

LPAs must submit any warranties or warranty information for built structures to ADOT with the final closeout documentation before final acceptance can be obtained. Warranty provisions are only allowed on construction contracts for projects if the following conditions are met:

- ▶ Warranty provisions must be for a specific construction product or feature; general warranties for the entire project are unacceptable. Maintenance items that are not eligible for federal participation are not covered.
- ▶ All warranty requirements and subsequent revisions must be submitted to ADOT C&S for advance approval.
- ▶ If the appropriate ADOT district office determines that a warranty requirement places an undue obligation on the contractor for items outside the contractor’s control, the warranty requirement will not be approved.

Section 106.13 Warranties and Guaranties of the *ADOT Standard Specifications for Road and Bridge Construction* provides more information on warranties (see the Resources list at the end of this chapter for a link). LPA’s should consult ADOT C&S for the Warranties stored specification to be included in every executed construction contract.

Mitigation Measures

Mitigation compliance paperwork must be submitted to ADOT as part of the final closeout documentation. Mitigation compliance activities established in a variety of project-related studies and reports (i.e., contract documents, environmental documents, and permits) may need to continue beyond the active construction period. These could include, for example, continued follow-up and monitoring for the CWA Section 404 permit, cultural and biological resource mitigation, landscape establishment, and any other mitigation established in a project-specific permit or clearance. These requirements and conditions must be met for compliance with the FHWA’s authorization. LPAs must coordinate with the ADOT project manager to determine the LPA’s responsibilities and the costs associated with ongoing mitigation compliance obligations. Typically, these responsibilities are outlined in the IGA developed for the project (see Chapter 2, ADOT Administration, for more information on developing IGAs).



Routine operations and maintenance activities are not eligible for federal-aid funding.

Arizona Pollutant Discharge Elimination System Compliance

The AZPDES CGP requires that ground surfaces disturbed by construction be stabilized before submittal of a Notice of Termination. The stabilization requirements can be difficult to achieve during the active construction period, particularly when stabilization relies on vegetative growth (i.e., turf seeding, native seeding) to satisfy permit criteria. Projects subject to the AZPDES CGP cannot close out a project until the Notice of Termination has been accepted by ADEQ. The accepted Notice of Termination must be included in the final project closeout documentation, if applicable.

Final Walk-Through and Inspection

Unless ADOT is administering project construction, LPAs are required to inspect ongoing construction activities and work practices and to conduct a review of past inspection findings and on-site records for corrective action,

as warranted, during the construction phase. At the completion of construction activities, a final walk-through and inspection must be conducted, which initiates the final acceptance phase. The ADOT resident engineer (for ADOT-administered projects) must coordinate with the ADOT district engineer, designer of record, and FHWA area engineer (as needed for full-oversight projects) to conduct the final walk-through and inspection. For self-administered and Certification Acceptance projects, the LPA's person in responsible charge must coordinate with the construction manager or equivalent. The final inspection is conducted to ensure that the project was completed in accordance with the approved contract documents and federal-aid requirements and to identify any issues that need to be resolved before receiving final acceptance. After the final walk-through and inspection, the ADOT resident engineer or the LPA's person in responsible charge will prepare a final inspection report that notes any concerns and will inform the contractor of the results of the final inspection. After the findings of the final inspection report have been resolved, if needed, the final acceptance letter can be prepared. The contractor will continue to be responsible for maintenance and repairs of any project work until final acceptance is obtained; the LPA is responsible for long-term maintenance of the project following final acceptance. Chapter 13, Construction, provides additional information on the LPA's administrative and performance requirements during the construction phase.

ADOT and FHWA retain the right to request additional inspections, measurements, or tests to verify opinions or to satisfy concerns (see 23 CFR 1.5 and 1.36). In the case of disagreement about the acceptability of the completed work, the LPA should refer the matter to the ADOT project manager and implement the escalation steps identified in the LPA's QA plan.

If the project involves bridge work, the ADOT Bridge Group should also be consulted when construction is complete. In accordance with 23 CFR 650C, new bridges must be inspected within 90 days after the completion of the work. If the Bridge Group is notified during the last weeks of construction, it may be able to inspect the bridge structure while it is still closed to traffic, which may reduce inspection time and costs. For more information on bridge inspections, see the ADOT Bridge Inspection Guidelines referenced in the Resources list at the end of this chapter.



CALENDAR WATCH

New bridges must be inspected within 90 days after the completion of the work.

Final Acceptance Letter

Self-Administration and Certification Acceptance

Before the project can be closed out, a final acceptance letter for the project must be written and approved (see Attachment 14-3 for an example final acceptance letter). For self-administered and Certification Acceptance projects, the final acceptance letter must be composed and signed by the LPA's person in responsible charge, who is authorized to validate the compliance documentation. The LPA must then send the signed final acceptance letter to ADOT LPA Section. Figure 14-2 illustrates the final acceptance process, which ends with final reimbursement of federal-aid funds.



The contractor is responsible for the cost and maintenance of the project until a final acceptance letter for the project is provided by the ADOT district engineer. Except for circumstances outside the LPA's control, the LPA must rebuild, repair, restore, and make good on all injuries or damages to any portion of the work before final acceptance is obtained (see ADOT's *Standard Specifications for Road and Bridge Construction*). No reimbursement will be made for work required because of the LPA's failure to comply with the contract, specifications, or any environmental permits.

ADOT Administration

For ADOT-administered projects, the ADOT resident engineer will recommend the project for final acceptance and will compose the final acceptance letter. The letter will then be submitted with all applicable project closeout documentation to the ADOT district engineer. The district engineer will audit the documentation and acceptance letter for accuracy and completeness before signing the letter and forwarding the documentation and acceptance letter to FHWA for review and approval. The documentation and letter will also be forwarded to the ADOT Field Reports Section, the ADOT Materials Group, and the ADOT project manager for their records.

Final Construction Package

Once the LPA or ADOT has received final documentation from the contractor and the final walk-through and inspection has been conducted, the final construction package can be assembled. For self-administered and Certification Acceptance projects, the final construction package is prepared by the LPA and submitted to ADOT LPA Section, who will forward it to the ADOT Final Voucher Section. For ADOT-administered projects, the final construction package is prepared by the ADOT Field Reports Section, who then submits it to ADOT Contract Payables and the ADOT Final Voucher Section.



Work that is improperly administered or documented may be considered "nonparticipating" and may therefore be ineligible for FHWA reimbursement. The LPA is fully responsible for funding the cost of all nonparticipating work.

The final construction package must include the documents on the Finals Cover Sheet, those in the list of final documentation, and those in the Final Estimate Checklist located in Section 109.09 of the ADOT *Construction Manual* (see Attachments 14-1 and 14-2 for copies of the Finals Cover Sheet and Final Estimate Checklist). The required documents include but are not limited to:

- ▶ Materials-testing summary
- ▶ Materials certifications
- ▶ Explanation of overruns, underruns, and change orders

- ▶ Final project costs and final estimate
- ▶ Design recommendations developed during construction
- ▶ Claims
- ▶ As-built drawings
- ▶ Exceptions to the project

The ADOT *Construction Manual* and other forms used by the Field Reports Section for processing payments can be found on the ADOT Construction Group website. Refer to the Resources list at the end of this chapter for a link to the Field Reports Section forms.

For self-administered and Certification Acceptance projects, the final construction package, including the final estimate, must be submitted to ADOT LPA Section, who requires the package before submitting final payment to the LPA.

Final Cost Settlement

Self-Administration and Certification Acceptance

LPAs are responsible for contractor and consultant payments during project activities; federal funds are provided to the LPA on a reimbursement basis. Federal reimbursement for construction projects administered by a certified or self-administering LPA must follow the same guidelines as projects administered by ADOT, but the LPA may use its own ADOT-approved forms and checklists to satisfy the federal guidelines for reimbursement. ADOT oversight of these projects will be performed through audits and inspections, as applicable.

Upon completion of construction activities, contractor and consultant invoices must be submitted to the ADOT project manager within 90 days. Undocumented costs will not be reimbursed. The LPA should notify ADOT in writing within 60 days of project completion to avoid having the project classified as inactive and at risk for deobligation. ADOT's *Reasonable Progress Policy and Procedures* further describes reimbursements (see the Resources list at the end of this chapter for a link to that document). For more information on reimbursement procedures and contractor and consultant payments throughout the project, see the Consultant and Contractor Payments section in Chapter 17, Financial Management/Reimbursement.



LPAs are encouraged to invoice the project on a monthly basis for projects lasting more than 1 month to allow for timely contractor payments and to minimize generation of substantive records at final billing.

Once all contractors and consultants have received final payment from the LPA, the final payment documentation must be submitted to ADOT Final Voucher Section, who will prepare the final voucher report to submit to FHWA for final reimbursement.

ADOT Administration

For ADOT-administered projects, ADOT Contract Payables will review the final construction package and then submit final payment reconciliation to the ADOT contractor, as applicable. Contract Payables will also coordinate with the ADOT Final Voucher Section, which reconciles financial data in the final construction package and prepares a final voucher report to request reimbursement of federal-aid funds from FHWA. The ADOT *Construction Manual* and forms used by the Field Reports Section for processing payments can be found on the ADOT Construction Group website (see the Resources list at the end of this chapter).

Final Voucher Report

All federal-aid projects require that the final construction package first be submitted to the ADOT Final Voucher Section. In order for the ADOT Final Voucher Section to prepare the final voucher report for self-administered and Certification Acceptance projects, the LPA must provide the final construction package to ADOT LPA Section within 4 months of project completion and acceptance; ADOT LPA Section will then coordinate with the Final Voucher Section to complete the final voucher report. In addition to the final construction package, the documentation needed by the Final Voucher Section to prepare the final voucher report includes:

- ▶ Final contractor payment
- ▶ A final acceptance letter by the LPA certifying that all the work has been completed as authorized and is acceptable (see Attachment 14-3 for an example final acceptance letter)
- ▶ An invoice detailing total funds spent and the federal-aid portion of total funds

Once the final voucher report is processed, the Final Voucher Section will submit the report to FHWA for final reimbursement. FHWA will review the final voucher report and send final reimbursement funds to ADOT. At that point, the project is considered final, and no further federal-aid reimbursement of project costs can be made. The project is considered to be closed out when FHWA records the final voucher payment in the FMIS.



ADOT Final Voucher Section prepares the final voucher report for all projects, even those administered by LPAs. In order for ADOT to prepare the final voucher report, the project closeout documentation must be compiled and reviewed for accuracy and completeness, and then submitted in the final construction package within 4 months of project final acceptance.

Project Audit

The ADOT Field Reports Section will perform an audit of compliance to determine that reasonable assurance for conformance with the U.S. Government Auditing Standards has occurred. A detailed outline of those standards is located in the OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations* (see the Resources list at the end of this chapter).

The objective of an audit is to determine whether construction costs included in the Money Summary of Progress and Final Payment Report are supported in accordance with the requirements of the *ADOT Construction Manual* and other applicable policies and procedures in the following areas:

- Contract documents
- Contract time
- Force accounts, change orders, and minor alterations
- Documentation of contract quantities
- Labor compliance (owner-mandated project labor agreements are not allowed; see Chapter 16, Civil Rights)
- Purchased, replaced, and salvaged items
- Quantitative checklists

ADOT Contract Payables (for money owed to an LPA) or Accounts Receivable (for money owed by an LPA) will inform the LPA of the project's final construction costs once the final voucher report review is completed. Should money be owed by the LPA, ADOT will request that any additional funds be paid within 30 days. Future construction projects will not be advertised for bid until reimbursement is made to ADOT for past project construction costs.

If an LPA provides more funds than are needed to reimburse ADOT for allowable project-related costs, excess funds will be returned to the LPA within 30 days. If the LPA would prefer the option of applying excess funds to a future project, a written request must be made to ADOT.



Following an audit, if additional money is owed to ADOT by the LPA, the funds must be paid to ADOT within 30 days. If a reimbursement of funds is owed to the LPA by ADOT, the excess funds will be returned to the LPA within 30 days.

For additional information on the audit procedures, contact the ADOT project manager or ADOT's Audit and Analysis Department (see Appendix A for contact information).

Recordkeeping and Reporting

In accordance with ARS 35-214, LPAs are required to keep all records, as necessary to document compliance with federal requirements, for a minimum of 5 years following FHWA closeout of the project in the FMIS. These records must be available for inspection and audit by authorized ADOT and FHWA representatives.

The following documents must be kept on file by the responsible party:

- Environmental clearances, including mitigation documentation
- Utility clearances
- Materials-testing reports and certifications
- ROW and railroad permits, including related documentation
- Warranty information
- CWA permits and records
- Air quality permits and records

Some project requirements may extend beyond the active construction phase of a project (e.g., Section 404 monitoring, cultural and biological mitigation monitoring, landscape establishment, or other stipulations established in project-specific permits or clearances). Recordkeeping for these activities, if part of the LPA’s responsibilities, will affect the project closeout schedule and recordkeeping efforts.



In accordance with ARS 35-214, records must be retained for a minimum of 5 years following FHWA closeout of the project in the FMIS.

ADOT will maintain records for environmental clearance documents, including both draft and final versions, for all projects. However, certified and self-administering LPAs should keep documentation of required mitigation measures as outlined in the environmental clearance, as applicable. For environmental clearance documents more extensive than a CE, such as an EA or an EIS, ADOT has the responsibility for maintaining the record and ensuring compliance with the mitigation measures.

Certified or self-administering LPAs are responsible for proper recordkeeping and file retention. Records are required to be forwarded to ADOT as part of the final acceptance and/or project closeout requirements. ADOT may request records or perform an audit of Certification Acceptance or self-administered projects at any time; FHWA also retains the authority to audit any project. For more information on the auditing program, see the Audits and Record Retention section in Chapter 17, Financial Management/Reimbursement.



As stipulated by 49 CFR 18.42(e), FHWA, ADOT, or any of their authorized representatives have the right of access to review/audit any LPA project documents (invoices, field reports, etc.) at any stage of the project.

Post-Construction Activities

Project Operations and Maintenance Needs

Operations and maintenance activities, including repairs such as filling potholes, take place in the post-construction period. LPAs are responsible for post-construction monitoring and maintenance activities. These activities are required for federal-aid-funded projects, in accordance with 23 CFR 633.208. Environmental mitigation and activities conducted during the landscape-establishment period are *not* considered to be maintenance activities.



Post-construction operations and maintenance activities do not qualify for federal-aid funding, with the exception of preventive maintenance costs allowed under 23 USC 116(d), and the LPA is solely responsible for long-term operations and maintenance of federally funded projects.

Ongoing maintenance ensures that federally funded projects achieve their expected lifespan while enhancing the overall quality of the local road or highway system. Therefore, LPAs must consider the long-term operations and maintenance needs of a project in the early planning stages, before construction. Once a project is completed, LPAs must commit financial resources and adequate personnel for ongoing operations and maintenance activities.

Monitoring and Feedback

Long-term monitoring of a transportation facility must be conducted by the LPA. Monitoring allows the LPA to evaluate the condition of a facility over time and to identify maintenance needs. Monitoring also allows the LPA to detect deterioration that signals the end of a facility's lifespan. At this point, an LPA could consider initiating the planning/programming phase for the needed project replacement/repair activities and identifying potential eligibility in the FAHP.

Roles and Responsibilities

ADOT-Administered Projects

On ADOT-administered projects, ADOT is responsible for all final acceptance and project closeout activities (Table 14-1), including:

- Project closeout documentation
- Nonparticipating cost approval
- Final walk-through and inspection
- Final acceptance letter

- Final construction package
- Notice to FHWA of project completion
- Final payment to contractor
- Final voucher report

Table 14-1 Roles and Responsibilities for Final Acceptance—ADOT-Administered Projects

Task	LPA	ADOT	FHWA
Construction compliance	N/A	Maintain all construction-phase contractors/practices; perform project audit; attend final walk-through	Attend final walk-through (optional)
Cost and maintenance before final acceptance	Provide funding to execute and maintain projects	Provide repairs and other maintenance activities until final acceptance	N/A
Project documentation	N/A	Have contractor document project activities/information and retain project documentation as required	Review and audit documentation as needed
Material certification compliance and recordkeeping	N/A	Receive certifications from contractor; submit documents with closeout documentation	N/A
Buy America compliance	N/A	Comply; submit documents with closeout documentation	Monitor compliance
As-built plans	N/A	Create and maintain; submit documents with closeout documentation	N/A
AZPDES compliance	N/A	Comply; submit documents with closeout documentation	N/A
Final acceptance letter	N/A	Prepare, sign, and submit to ADOT district engineer for review and approval; submit signed letter to FHWA	Review and approve
Final construction package, with final estimate	N/A	Prepare; review and approve	N/A
Final voucher report	N/A	Prepare and submit to FHWA	Review and approve
Funding reimbursement for final construction costs	N/A	Compile final cost data and submit to FHWA for reimbursement	Review and reimburse authorized costs to ADOT
Post-construction compliance and mitigation	Meet all post-construction compliance/mitigation requirements	Verify mitigation compliance as needed	N/A
Long-term maintenance	Maintain project	N/A	N/A

Self-Administered Projects

When closing out a self-administered project, the LPA must ensure that the closeout activities outlined above for ADOT-administered projects are completed. LPAs should also refer to the *Consultant Construction Administration Manual* and the *ADOT Construction Manual* for additional guidelines (see the Resources list at the end of this

chapter). ADOT maintains oversight authority over all project phases, including those self-administered by the LPA, but self-administering LPAs are responsible and accountable for complying with all applicable ADOT and FHWA policies and procedures (Table 14-2).

Self-administering LPAs must undertake the following steps to prepare a project for final acceptance and project closeout by ADOT:

- Communicate with the ADOT project manager and district engineer on progress during construction
- Include the ADOT project manager and district engineer in the distribution of monthly construction progress reports to address major construction issues
- Invite the ADOT district engineer, designer of record, and FHWA area engineer (as needed) to final inspections for acceptance and dedication ceremonies
- Submit project closeout documentation, final acceptance letter, final construction package, and final voucher package stating that the project has been completed and accepted by the LPA to the ADOT district engineer, Field Reports Section, and ADOT project manager as needed
- Return all ADOT property, including project records, computer programs, equipment, and materials purchased for the project, as well as warranty information and operations manuals (the ADOT project manager will check the quantity and quality of the transferred materials and records before allowing final payment to the LPA)

Certification Acceptance Projects

When closing out a Certification Acceptance project, the LPA ensures that the applicable closeout procedures for ADOT-administered projects (outlined above) and any additional procedures included in the Certification Acceptance agreement have been followed and are complete (Table 14-2).

Table 14-2 Roles and Responsibilities for Final Acceptance—Self-Administered and Certification Acceptance Projects

Task	LPA	ADOT	FHWA
Construction compliance	Maintain all construction-phase contractors/ practices	Perform project audit; attend final walk-through	Attend final walk-through (optional)
Cost and maintenance before final acceptance	Provide funding to execute and maintain projects	N/A	N/A
Project documentation	Have contractor document project activities/information and retain project documentation as required; submit to ADOT	Review/audit and retain documentation as needed	Review and audit documentation as needed
Materials certification compliance and recordkeeping	Conform to approved PS&Es and project-related documents; receive certifications from contractor and submit to ADOT	Monitor compliance	N/A
Buy America compliance	Comply; submit documentation to ADOT	Monitor compliance	Monitor compliance
As-built plans	Create and maintain; submit to ADOT	Maintain copy	N/A

Task	LPA	ADOT	FHWA
AZPDES compliance	Comply with permit and terminate coverage; submit documentation to ADOT	Monitor compliance	N/A
Final acceptance letter	Prepare, sign, and submit to ADOT LPA Section	Review and approve; submit signed letter to FHWA	Review and approve
Final construction package, with final estimate	Prepare and submit to ADOT LPA Section	Review and approve	N/A
Final voucher report	N/A	Prepare following receipt of final construction package	Review and approve
Funding reimbursement for final construction costs	Compile final cost data and submit to ADOT; receive funds from ADOT	Calculate final costs and inform LPA; reimburse final costs to LPA after receiving funds from FHWA; request and receive from FHWA	Review and reimburse authorized costs to ADOT
Post-construction compliance and mitigation	Meet all post-construction compliance/mitigation requirements	Verify mitigation compliance as needed	N/A
Long-term maintenance	Maintain project	N/A	N/A

RESOURCES

ADOT Bridge Inspection Guidelines

<http://www.azdot.gov/business/engineering-and-construction/bridge/guidelines/guidelines-bridge-inspection>

<http://www.azdot.gov/docs/default-source/bridge-group/bridge5.pdf?sfvrsn=2>

ADOT Construction Group

<http://www.azdot.gov/business/engineering-and-construction/construction>

ADOT Construction Group—Contractors' Forms

<http://www.azdot.gov/business/engineering-and-construction/construction/contractor%27s-information/forms-and-documents>

ADOT Construction Group Website—Contractors' Information

<http://www.azdot.gov/business/engineering-and-construction/construction/contractor%27s-information>

ADOT Construction Manual

<http://www.azdot.gov/business/engineering-and-construction/construction/ConstructionManual/construction-manual>

ADOT Construction Manual Forms

<http://www.azdot.gov/business/engineering-and-construction/construction/ConstructionManual/forms>

ADOT Consultant Construction Administration Manual

<http://www.azdot.gov/docs/business/consultant-construction-administration-manual.pdf?sfvrsn=2>

ADOT Contracts and Specifications—Stored Specifications

<http://www.azdot.gov/business/ContractsandSpecifications/Specifications>

ADOT Field Reports Section Forms

<http://www.azdot.gov/business/engineering-and-construction/construction/field-reports/forms>

ADOT Materials Testing Manual—Series 900

<http://www.azdot.gov/business/engineering-and-construction/MaterialsGroup/materials-manual-info/MTM/Series900>

ADOT Materials Testing Manual—Series 1000

<http://www.azdot.gov/business/engineering-and-construction/MaterialsGroup/materials-manual-info/MTM/Series1000>

ADOT Red-Line and As-Built Procedure and Guidelines

<http://www.azdot.gov/docs/business/redlines-and-as-built-procedures-and-guidelines.pdf?sfvrsn=0>

ADOT Standard Specifications for Road and Bridge Construction

<http://www.azdot.gov/docs/business/2008-standards-specifications-for-road-and-bridge-construction.pdf?sfvrsn=0>

FHWA Contract Administration Core Curriculum Participant's Manual and Reference Guide 2006

<http://www.fhwa.dot.gov/programadmin/contracts/cacc.pdf>

OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations

http://www.whitehouse.gov/omb/circulars_default

http://www.whitehouse.gov/sites/default/files/omb/assets/a133/a133_revised_2007.pdf

ATTACHMENT 14-1

FINALS COVER SHEET



FINALS COVER SHEET

CONTRACTOR: _____ ORG _____
 PROJECT NUMBER: _____ TRACS NUMBER: _____
 FINAL: \$ _____

TIME: CONTRACT _____ EXTENDED _____ USED _____
 PH II: CONTRACT _____ USED _____
 DBE: _____ ENDING MILE POST: _____ OPEN TO TRAFFIC: _____
 ACCEPTANCE LETTER: _____ PAYROLL STATUS: _____
 RED LINES: _____
 AS-BUILTS: _____ MATERIALS CLOSEOUT: _____

REMINDER:

- Take ownership of project back (If turned over to Org for corrections)
- Verify that all L.Sum Structures are paid to 100% per Stand. Spec. 109.10
Note: except, driven piles, caissons, and drilled shafts, which will be paid for under their respective contract items
- Verify in Contract Card that all Subcontracts have been received
- Verify that 203 (Borrow, Drainage Ex, Roadway Ex) are pd. @ 100%
- Verify that all Lump Sum items are pd @ 100%
Note: except, line item Force Accounts, and MPT
- Verify that 4040116 Apply Tack Coat was pd. only for Tack Coat and not Fog Coat
- Verify the total length of all 607 Breakaway, and Perforated Sign Posts of the same size / type are rounded to the nearest Ft.
- Verify that the total of each 608 Sign Panel is rounded to the nearest Sq. Ft.
- Verify that items with a unit of EA are whole numbers (no decimals)
- Verify there were no MPT pymnts. for construction past Subst. Compl. per Stand. Spec. 701-4.03(F)
- Verify that there are no Partial Payments Left in inventory
- Verify that there are no Duplicate Payments (CPE, Reports, Duplicate Payment Check)
- Verify that the previous amount on the final estimate is the same as accumulated amount on previous monthly estimate
- Verify that contract time was charged for the 45 calendar day seeding establishment period per the Spec. Prov. 80£
- Verify that OJT Trainee Hours are at a minimum of 90% if applicable
- Do the number of OJT hours paid in CPE match the number of OJT hours in LCP Tracker (Coord. w/Payroll Person)

ORDER OF DOCUMENTATION:

- Contract Card
- DBE Cert. (Also required if DBE(s) performs work on Project regardless of DBE goal requirement)
- Bit. Price Adjustment
- Diesel Fuel Price Adjustment
- SAT's Log
- Estimates
- Final Balance
- Supplemental Agreements
- Time Packet (Time / Liquidated Damage Ltr., Start & Compl. Status, Time Rpt, & WTR's)
- Final Acceptance Letter
- Award Letter
- Agreement Estimate
- Special Provisions
- Copy pages from Final Estimate with 109 Items
- Copy pages from Final Balance with 700 Items

G:\ITD\FIELD REPORTS\F_RPTS\Final Cover Sheet Pink 12/2/11

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ATTACHMENT 14-2

FINAL ESTIMATE CHECKLIST



FINAL ESTIMATE CHECKLIST

Documentation to be sent to Field Reports, including:

- 1. Final Estimate (Original only, with Resident Engineer's signature. Semi-final required if balance due exceeds \$500.00).
- 2. Final Balance Report (Original only, with Resident Engineer's signature). Shall match the estimate amount.
- 3. Include all sections of the transaction detail log signed by the Resident Engineer.
- 4. Submit supporting documentation for all bituminous materials/price adjustments paid by the ton including:
 - lab reports and/or invoices
 - Hot Plant reports (Daily documentation of the amount of mineral admixture incorporated into the mix; temperatures recorded in graphic form after each shift of production; and records of all asphalt cement deliveries to the plant) See Standard Specification 403.
 - bituminous materials price adjustment recap
(See Construction Manual Exhibit 4-5, Bituminous Material Price Adjustment Example).
- 5. Submit supporting documentation for all Mineral admixture in accordance with Construction Manual Method of Measurement and Basis of Payment. (See Construction Manual Exhibit AC-7, Daily Mineral Admixture Report Example and Blank Forms at the end of Chapter IV).
- 6. Supporting documentation for all incentives and disincentives paid.
- 7. Start and Completion Memo signed by Resident Engineer.
- 8. Acceptance Letter signed by District Engineer.
- 9. Time Reports, first and last, for each phase signed by the Resident Engineer.
- 10. Request for extension of time, liquidated damage letter and stop/resume work orders.
- 11. Diesel Fuel Recap sheet.

REMINDER OF OTHER SUBMITTALS

MAIL MATERIALS CHECKLIST DIRECTLY TO MATERIALS – 068R (see contract card for verification).

SUBMIT NOTICE OF TERMINATION OF INTENT TO DISCHARGE TO ROADSIDE DEVELOPMENT. (NOI/NOT-Notice of Intent/Notice of Termination).

SEND AS-BUILT PLANS TO PROJECT MANAGEMENT, ENGINEERING BUILDING, ROOM 295E, MAIL DROP 614E (see CCS-finance).

SEND DBE AFFIDAVITS AND TRAINING REPORTS TO CIVIL RIGHTS OFFICE.

WHEN FINAL ESTIMATE IS SUBMITTED TO FIELD REPORTS FOR FEDERAL PROJECTS, CERTIFIED PAYROLL ISSUES ARE RESOLVED, FINALED AND CLOSED.

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ATTACHMENT 14-3 EXAMPLE FINAL ACCEPTANCE LETTER



Janice K. Brewer
Governor

John S. Halikowski
Director

Arizona Department of Transportation
Intermodal Transportation Division
206 South Seventeenth Avenue Phoenix, Arizona 85007-3213

Floyd Roehrich Jr.
Slate Engineer

June 2, 2011

Cactus Transport, Inc.
8211 West Sherman Street
Tolleson, AZ 85353

Attn: **Jeff Martinez**
Project Manager

Project: NH-080-A(205)A
T10-11-00022 / H795001P
EAST BISBEE TO DOUBLE ADOBE ROAD

Re: **Final Acceptance**

This letter will serve to confirm that the above referenced project was considered complete and accepted as FINAL in accordance with Subsection 105.20(B) of the 2008 Standard Specifications on October 25, 2010.

Final payment for the completed project will be made after all quantities have been checked and verified by Subsection 109.09 of the 2008 Standard Specifications.

I would like to take this opportunity to express the Department's appreciation for the manner in which your firm pursued this work to successful completion. The visible quality exhibited by your workers is testimony to your firm's efforts. Thanks again.

Sincerely,

William Harmon
Safford District Engineer
ADOT-Safford District Office
2082 US Hwy 70
Safford, AZ 85546
Phone# 928-432-4919
Fax# 928.428.7523

C: Assistant State Engineer, Construction 172A.
Resident Engineer Org 8431
Field Reports Branch - 133A
Project file

RECEIVED

JUN 27 2011

ADOT CONSTRUCTION
BENSON, ARIZONA

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CHAPTER 15

Quality Management

Introduction

This chapter stresses the importance of knowledgeable decision making and focused planning and design in delivering quality LPA projects throughout the phases of the project life cycle (Figure 15-1). By establishing a quality-management program, including methods for administering, measuring, and reviewing the program’s success, LPAs can ensure that their projects will meet federal, state, and local quality standards.

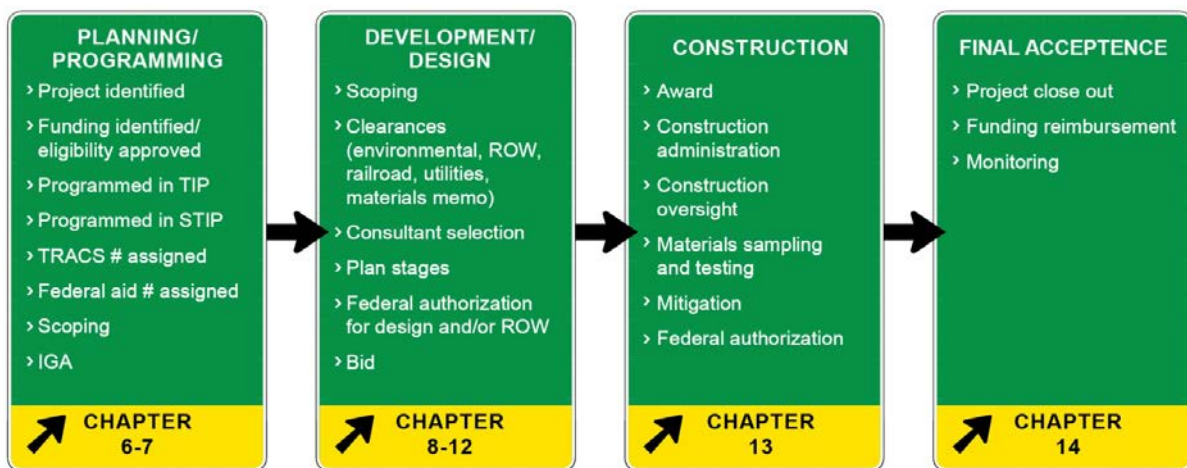


Figure 15-1 Project Life Cycle



An effective quality-management program can save LPAs significant time and resources.

Overview of Quality-Management Process

What is Quality Management?

Quality management is the term for the continuous effort of achieving the LPA’s objectives for a project while successfully navigating it through planning/programming; scoping; development/design; construction; and final acceptance. Quality management begins during the planning/programming phase, when a local project is first identified and its scope, purpose, and need are laid out. From that point forward, quality management depends on assessing the accuracy and appropriateness of decisions at each development phase before moving the project to the next phase. Properly applying quality-management reviews at each phase will help LPAs meet the desired quality standard and keep to schedule and budget goals as the project progresses (Figure 15-2).

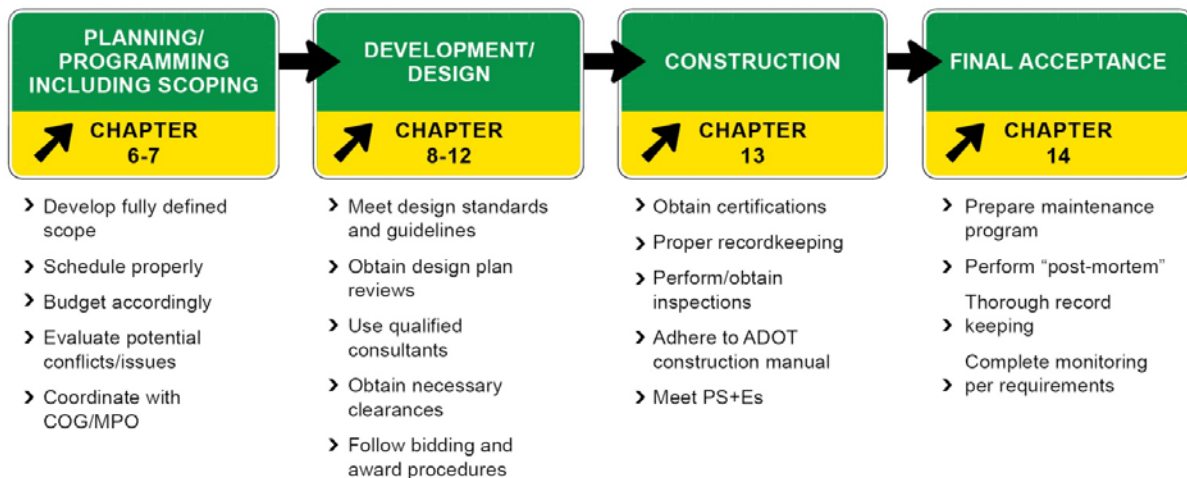


Figure 15-2 Major Quality-Management Tasks

Quality: A Continuous Process

Quality is accomplished by paying attention to small steps, getting each task done right the first time, and making small improvements rather than one huge improvement. Continuous process improvement helps to discover and eliminate the primary causes of procedural ineffectiveness. One of the best ways to achieve continuous process improvement is to use checklists, tables, and matrices to document project-related activities. This will enable confirmation that each activity was carried out and that each met required standards. Deficiencies can be noted and corrected before they have a significant impact on the final project.

To deliver a quality project, LPAs must understand the overall LPA project development process; must actively supervise the actions and activities of its staff, consultants, and contractors; and must commit to a viable quality-management program that stresses proactive QC measures and partnership with ADOT (Figure 15-3). Effective quality management also requires active management by ADOT project managers. See Chapter 5, Managing the Project, for additional details on the LPA project development process. A link to ADOT’s project development process documents is also provided in the Resources list at the end of this chapter.



Figure 15-3 Quality-Management Process

Quality Assurance and Quality Control

The terms QA and QC are often used interchangeably to refer to ways of managing the quality of a service or product. The terms, however, have different meanings:

- ▶ **QA** is the overall program or plan for the systematic monitoring and evaluation of various aspects of a project, service, or facility necessary to ensure that standards of quality are achieved.
- ▶ **QC** is the active implementation of activities designed to ensure quality standards are met.

QA includes the continued evaluation of activities related to planning, development/design, advertising and awarding of contracts, construction, and maintenance, and the interactions of these activities. QC is an important part of the overall QA program or plan. See Chapter 13, Construction, for more information on QA requirements during the construction phase.

Link between Quality, Schedule, and Cost

Following a well-defined, systematic quality-management program that emphasizes comprehensive, thorough scoping and that establishes clear, achievable quality standards can help LPAs adhere to project schedules and budgets by:

- ▶ Allowing LPAs to anticipate work tasks and plan for and use needed resources efficiently
- ▶ Reducing or eliminating unnecessary delays due to incomplete or inaccurate documents
- ▶ Reducing or eliminating the need for rework to meet quality standards

Planning/Programming Phase

It is critical that projects be fully scoped, defined, and evaluated during the planning/programming phase. During this phase, LPAs developing local projects work closely with their MPO or COG. Many of the specific challenges of individual projects can be solved by local interests while the project is being planned.

During the planning/programming phase, a project should be thoroughly scoped; an accurate and complete description of the project's scope, budget, and schedule at each step, including all ancillary improvements, ROW and easement needs, utility and railroad clearance requirements, site preparation, and infrastructure needs, should be provided. A thorough scoping process will result in an accurate budget and schedule and will enable effective resource planning so that the project can be completed efficiently. Projects without the proper level of accurate planning/programming and scoping can result in delays and significant cost overruns and change orders in later project stages. See Chapter 7, Scoping, for a detailed checklist of issues that should be addressed during scoping.

Development/Design Phase

The primary design standards for federally funded projects in Arizona are those established by AASHTO, as well as FHWA's design guidelines. Regardless of administration type, all LPA projects are required to meet these federal design standards (see the Resources list at the end of this chapter for links to information on federal design standards and criteria).

ADOT's *Roadway Design Guidelines* manual provides detailed procedures for the development of design documents, including the review and informational requirements necessary at each predetermined design stage. Refer to Chapter 8, Development/Design, for the requirements at each plan submittal stage.

The design criteria and policies identified by AASHTO, FHWA, and ADOT are critical to an LPA's ability to establish an effective quality-management program, to meet quality standards, and to administer specific QC procedures on each LPA project. Through the implementation of a thorough quality-management program, including reviews from the ADOT project manager, an LPA can ensure that the necessary design and ADOT drafting standards and guidelines are met during the development/design phase.

ADOT-Administered Projects

During the development of ADOT-administered projects, the ADOT project manager is responsible for operational direction and oversight of LPA projects, including QA and QC. To effectively partner with ADOT, LPAs should be thoroughly familiar with FHWA and ADOT design guidelines and standards and QC requirements for all activities carried out during the development/design phase.

Self-Administered Projects

LPAs authorized to administer the development/design phase must ensure that the project is designed according to FHWA, ADOT, and local design guidelines and standards. The LPA should follow the quality-management procedures outlined as part of the self-administration application to ensure design activities are carried out as

required and that activities carried out during construction can be carried out efficiently. The ADOT project manager will provide QA by reviewing the project.

Certification Acceptance Projects

Certified LPAs must ensure that each project is designed according to local, ADOT, and FHWA design guidelines and standards. The LPA should follow the quality-management procedures outlined in the QC manual provided to ADOT as part of the certification application. LPAs must ensure that the project meets federal, state, and local regulations as LPA projects are being developed, and ADOT may review completed projects to verify that they meet quality standards.

Construction Phase

Following quality-management practices during the construction phase leads to projects that are constructed safely and in accordance with FHWA and ADOT standards and guidelines. LPA projects must meet established AASHTO, FHWA, and ADOT quality-management requirements for each construction-related activity. Among these are consultant selection for construction administration, the bidding and award process, inspection and payment procedures, civil rights requirements, materials certifications, and construction closeout.

The primary sources for LPAs to obtain information on these or other construction-related activities include the FHWA *Construction Program Guide* and the ADOT *Construction Manual*. Required forms and checklists, submittal requirements, and response schedules, if not completed as required and within the established timelines, may cause delays to the construction schedule, to reimbursement from FHWA, or to both. Refer to Chapter 13, Construction, for the requirements during the construction phase.

ADOT-Administered Projects

During the construction of ADOT-administered projects, the ADOT project manager is responsible for ensuring that LPAs are in compliance with all federal procurement requirements, for providing adequate inspection and supervision during construction of the approved plan, and for meeting FHWA closeout requirements. LPAs must follow FHWA and ADOT construction guidelines and standards for all activities throughout the construction phase.

Self-Administered Projects

LPAs authorized to administer the construction phase must ensure that the project is administered and constructed in accordance with the approved PS&Es and with the applicable sections of ADOT's *Standard Specifications for Road and Bridge Construction* so that federal-aid policies, reimbursement procedures, and audit requirements are met. The quality-management program provided to ADOT when requesting self-administration should be followed and maintained throughout the construction phase to ensure that the project meets quality standards.

Certification Acceptance Projects

LPAs certified to administer construction must ensure that the project is administered and constructed in accordance with the approved PS&Es and with the applicable sections of ADOT's *Standard Specifications for Road and Bridge Construction* so that federal-aid policies, reimbursement procedures, and audit requirements are

met. The quality-management program provided to ADOT when requesting certification should be followed and maintained throughout the construction phase to ensure quality standards.

Final Acceptance Phase

Effective QC during construction results in comprehensive, accurate documentation and records, which greatly simplify the project closeout process. Completing the closeout process correctly and within required time frames is essential to full reimbursement. A good quality-management program during final acceptance includes procedures to fulfill project-specific mitigation requirements (e.g., monitoring). An LPA should also consider creating a maintenance program that details a plan to maintain the project once it is released to the LPA.

Recordkeeping and Reporting

Each phase of an LPA project has specific recordkeeping and reporting requirements; LPAs should familiarize themselves with these requirements and document them under their quality-management programs. Required forms and checklists, submittals, and schedules, if not completed as required within the established time frames, may cause delays to project development and construction, as well as to reimbursement from FHWA.

Roles and Responsibilities

Table 15-1 outlines the roles and responsibilities regarding quality management for LPA projects.

Table 15-1 Roles and Responsibilities for Quality Management

Task	LPA	ADOT	FHWA
Quality-management program that meets AASHTO, FHWA, and ADOT standards	Establish	Review	Review
QA plan that includes quality standards for project development	Meet standards	Establish standards and review for compliance	N/A
QC plan that confirms quality performance	Maintain QC	Review and concur	N/A
Measurement of performance against standards	Measure and develop corrective actions	Review and concur	N/A
Corrective actions to improve quality management	Develop and meet	Review and concur	N/A

RESOURCES

American Association of State Highway and Transportation Officials Website

<http://www.transportation.org/>

- ▶ *A Policy on Geometric Design of Highways and Streets*
- ▶ *Guide Specifications for Highway Construction*

ADOT Construction Manual

<http://www.azdot.gov/business/engineering-and-construction/construction/ConstructionManual/construction-manual>

ADOT LPA Section Website

<http://www.azdot.gov/business/programs-and-partnerships/LocalPublicAgency>

ADOT Roadway Design Guidelines

<http://www.azdot.gov/docs/default-source/business/roadway-design-guidelines.pdf?sfvrsn=8>

FHWA and ADOT Stewardship and Oversight Agreement for Arizona

<http://www.fhwa.dot.gov/federalaid/stewardship/agreements/az.cfm>

<http://www.azdot.gov/business/engineering-and-construction/traffic/traffic-safety/stewardship-and-oversight-agreement-for-arizona>

FHWA Construction Program Guide

<http://www.fhwa.dot.gov/construction/cqit/>

FHWA Design Standards

<http://www.fhwa.dot.gov/programadmin/standards.cfm>

FHWA Mitigation Strategies for Design Exceptions (including FHWA's 13 controlling criteria)

<http://safety.fhwa.dot.gov/geometric/pubs/mitigationstrategies/>

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CHAPTER 16

Civil Rights

Introduction

Nondiscrimination provisions apply to all federally assisted programs and activities of federal-aid recipients, subrecipients, and contractors, regardless of tier. The provisions prohibit any use of federal financial assistance to subsidize, promote, or perpetuate discrimination based on color, race, national origin, age, sex, disability, or income status. ADOT is committed to implementing and obtaining compliance with all civil rights programs to ensure nondiscrimination and, as a primary recipient of federal-aid funds, has the responsibility for monitoring for compliance on federally funded transportation projects. Together with ADOT, the LPA considers civil rights throughout all phases of the project, from planning/programming through final acceptance (Figure 16-1).

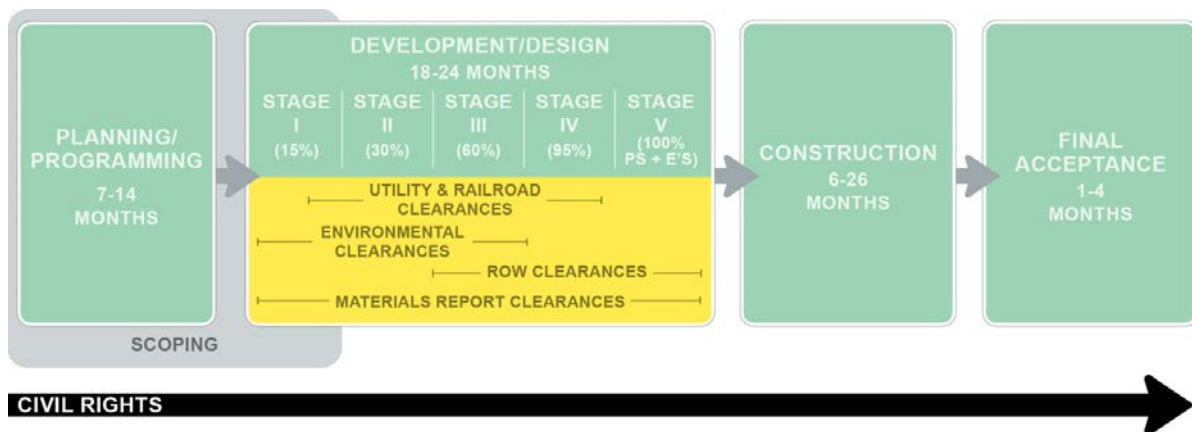


Figure 16-1 Civil Rights in the Project Life Cycle

For LPA projects, ADOT is responsible for monitoring and ensuring compliance with the LPA’s signed assurances that all programs, activities, services, and benefits are free of discrimination, as a basis for receipt of federal-aid funds. Important regulations that apply to the assurance of civil rights include Title VI of the Civil Rights Act, EEO, ADA, and DBE requirements. LPAs are required to provide assurances—written statements of contractual agreement signed by an authorized official stating that the LPA will administer federally assisted programs in accordance with civil rights laws and regulations.

LPAs must demonstrate that they understand and have met all of the civil rights requirements as a condition of receipt of federal funding. LPAs should note that the requirements discussed in this chapter apply to projects funded under FHWA programs only. Additional and/or different requirements may apply for projects funded under FTA or FAA programs.



A recipient is an administrative entity or person to whom federal assistance is directly extended and whose conduct is subject to Title VI/nondiscrimination and compliance obligations. A subrecipient receives federal assistance indirectly through a recipient or another subrecipient. Subrecipients are also subject to Title VI/nondiscrimination and compliance obligations.

ADOT and LPA Responsibilities

ADOT has a dedicated Civil Rights Office (CRO) that works with LPAs to ensure compliance with federal laws and, to that end, implements a variety of training programs, investigates complaints, and provides nondiscrimination counseling. The CRO has programs dedicated to affirmative action, internal civil rights investigations, contract compliance, Title VI Program compliance, DBE Program compliance, and the DBE Pre-Apprenticeship Program. Key ADOT program areas support the CRO in this mission, including the ITD, MPD, the Administrative Services Division, EPG, ECS, the ROW Group, C&S, and CCP. ADOT district engineers and MPOs and COGs also support CRO in upholding and enforcing civil rights requirements.

Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 is the main legal authority for ADOT's external nondiscrimination programs. Title VI prohibits discrimination on the basis of race, color, or national origin in programs or activities receiving federal financial assistance. Once an agency accepts federal-aid funds, all of its programs and activities are covered, regardless of their funding source. Related statutes and presidential executive orders under the umbrella of Title VI address age; environmental justice in minority and low-income populations; and services to individuals with limited English proficiency (LEP), to women, and to people with disabilities.

ADOT's Title VI Program will provide leadership, direction, and policy to assist LPAs in implementing the nondiscrimination provision of the Title VI statutes.

- As a condition of receiving federal aid, the U.S. Department of Transportation implementing regulations (49 CFR 21 and 23 CFR 200) require the following:
 - A Title VI plan to prevent discrimination in the provision of benefits and services on federally funded transportation programs and activities. The Title VI Program is a system of policies and procedures designed to monitor agency compliance, address complaints, and eliminate discrimination when found to exist.
 - Federal-aid recipients' execution of Title VI assurances signed by the recipient agency's chief executive officer.

ADOT is required to ensure that all LPAs receiving federal funds are in compliance with these regulations. All ADOT construction projects must reference Title VI requirements that are contained in ADOT's *Standard Specifications and Special Provisions*. FHWA Form 1273, Required Contract Provisions, must be included in all contracts and subcontracts. ADOT's *Standard Provisions for Intergovernmental Agreements* also reference civil rights laws.

Title VI Program Plans

ADOT Title VI Implementation Plan

ADOT's *Title VI Implementation Plan* lays out ADOT's system of policies and procedures for monitoring compliance with Title VI, addressing complaints, and eliminating discrimination when it is found to exist. A link to the plan on the ADOT website is referenced in the Resources list at the end of this chapter.

LPA Title VI Program Plans

LPAs are required to complete Title VI Program plans that lay out the LPA's policies and procedures relative to Title VI. LPA Title VI program plans:

- ▶ Are legal documents that impose individual legal liabilities to the signatory agency
- ▶ Must describe how federal-aid recipients will comply with Title VI, how complaints may be filed, and how they will be processed
- ▶ Must be approved and reviewed annually by ADOT's Title VI program manager

Updates to LPA Title VI Program Plans

LPAs must update their program plans immediately if there are substantive changes to the LPA's Title VI Program, such as changes in policy, key staff, and staffing organization. Updated plans must be submitted to ADOT CRO for review.

Title VI Program Plan Development

Technical support for development of Title VI Program plans is available from CRO. If LPAs already have an approved Title VI Program plan in use for another federally funded program, they may use this plan but it must be submitted to CRO for review.

Agencies certified through the Certification Acceptance Program will be required to develop a Title VI Program plan as part of the documentation they must provide when applying for certification or recertification (see Chapter 4, Certification Acceptance, for more detail on the certification process).



Sample Title VI Program plan and nondiscrimination agreement formats are in the Preventing Discrimination section of the *Federal-Aid Program Reference Notebook*, which is available on the U.S. Department of Transportation website (see the Resources list at the end of this chapter for the link).

Title VI Program Plan Checklist

Title VI Program plans should include the following:

- ▶ Title VI Nondiscrimination Statement of Policy, including:
 - Express commitment to Title VI nondiscrimination obligation
 - Policy signed by the chief administrative officer
 - Policy statement circulated throughout organization and the public
- ▶ List of all relevant federal statutes, regulations, executive orders, and other legislation
- ▶ LPA Title VI organization and staffing information, including:
 - Identification of the Title VI coordinator and program area
 - Title VI specialists who will administer the Title VI Program
 - An organization chart
- ▶ Federal-aid program emphasis areas, including:
 - Description of program areas (planning, research, design education and training, ROW, construction, maintenance, etc.)
 - Legal/operational authorities
 - Title VI compliance monitoring responsibilities for each area
- ▶ Title VI Standard Assurances and Appendices (DOT Order 1050.2)
- ▶ Data collection procedures
- ▶ Complaint procedures, including:
 - Process for filing complaints
 - Description of investigative process
 - Responsible agency staff
 - Time limits to submit complaints and complete investigations

The U.S. Department of Justice *Title VI Legal Manual* includes details on Title VI Standard Assurances and Appendices (see the Resources list at the end of this chapter for a link to that manual).

Title VI Complaint Investigations

The LPA is responsible for investigating Title VI complaints of discrimination, unless the complaint filed is against the LPA. When a complaint is filed against the LPA, ADOT CRO will investigate. All complaints must be reported

and forwarded to ADOT's Title VI program manager. No agency is allowed to investigate a complaint against itself. FHWA Headquarters Office of Civil Rights will render final decisions on all cases.

An annual log of complaints must be maintained by the LPA. The log of complaints must contain the following information for each complaint filed:

- Name and address of person who filed the complaint
- Date of complaint
- Basis of complaint
- Disposition of complaint
- Status of complaint

ADOT's Title VI complaint procedures are posted on the CRO website, along with a complaint form that should be used for all Title VI complaints filed with ADOT (see the Resources list at the end of this chapter for a link to ADOT's Title VI complaint procedures).

Annual Title VI Update and Accomplishment Report

LPAs with approved Title VI Program plans or nondiscrimination agreements are required to file an annual report for Title VI Program implementation compliance activities and accomplishments by August 1 of each year that includes:

- Assurances
- Statistical breakdown of communities' populations
- Beneficiaries of projects, including the race, ethnicity, gender, age, and disability of those who will benefit from projects and the mobility benefits that will result
- Effects of transportation programs within the community such as transportation, social, and others beyond mobility
- Process for public participation, specifically discussing efforts to reach out and to ensure participation of the transportation disadvantaged
- Composition of advisory boards having an impact on transportation programs, indicating the race, ethnicity, gender, age, and disability of the members
- A listing of all complaints, claims, and lawsuits alleging discrimination
- Process for identifying and eliminating procedures that result in discrimination and for correcting deficiencies within 90 days



CALENDAR WATCH

LPAs with approved Title VI Program plans or nondiscrimination agreements are required to file an annual report for Title VI Program implementation compliance activities and accomplishments by August 1 of each year.

Title VI Compliance Reviews

ADOT periodically conducts compliance reviews to assess the LPA's effectiveness in implementing its approved Title VI Program plan. The CRO will notify the LPA in writing of the review date and will identify the documents required for review. The CRO may interview LPA staff as part of the review.

LPAs are deemed to be in compliance if no deficiencies are found. ADOT will notify the LPA in writing of its findings.

If deficiencies are found during the review, LPAs will be found to be in noncompliance. ADOT will notify the LPA of deficiencies in writing. Deficiencies must be corrected within 90 days. If ADOT finds that the deficiencies have been corrected, it will issue a finding that the LPA is in compliance and will notify the LPA in writing.



If deficiencies found during a Title VI compliance review are not corrected within 90 days, the LPA may be subject to sanctions, including the suspension of federal-aid funding.

Self-Administration and Certification Acceptance Requirements

LPAs that are administering the construction phase of federal-aid contracts under self-administration or the Certification Acceptance Program are required to conduct on-site compliance reviews of prime contractors and their subcontractors. Data should be collected on the types of contractors and subcontractors being used on the contract.

Summary of LPA Requirements Related to Title VI

- Appoint a Title VI coordinator
- Obtain Title VI training for coordinator and other key staff
- Proactively prevent discrimination as defined in Title VI and related authorities; disseminate Title VI Program information to staff and the public
- Include Title VI language in all contracts with consultants and contractors for federally funded projects
- Collect and maintain data on race, ethnicity, age, gender, disability, LEP, and income of populations in the service area
- Provide information in other languages, as necessary
- Proactively include traditionally underrepresented populations that are hard to reach through the traditional notification process in public involvement and informational processes
- Analyze the benefits and burdens of activities and projects on the Title VI-protected population in the service area
- Perform periodic self-assessments for Title VI compliance
- Develop periodic Title VI reports

- ▶ Correct any deficiencies identified during a review or complaint
- ▶ Complaints
 - Provide the public access to a defined complaint process and a complaint form
 - Maintain a complaint log
 - Refer complaints to ADOT when complaint is against the LPA
 - Submit completed complaint investigations (lodged against consultants and contractors) to ADOT

Other Nondiscrimination Statutes Related to Title VI

Limited English Proficiency (Executive Order 13166)

LEP is one of the bases covered under Title VI national origin. One type of national-origin discrimination is based on a person's limited ability to speak, read, write, or understand English. The federal government and those receiving federal financial assistance (recipients, subrecipients, and contractors) must take reasonable steps to ensure that LEP populations have meaningful access to the programs, services, and information those entities provide. This may require providing written and oral communications in a language other than English. LEP guidance is available on the Federal Interagency LEP Guidance and Language Access Plans website (see the Resources list at the end of this chapter).

Environmental Justice (Executive Order 12898)

Environmental justice refers to the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to transportation programs, policies, or activities. In this context, fair treatment means that minority and low-income groups should not bear a disproportionate share of the negative environmental impacts of government actions. Executive Order 12898 requires that all federal agencies and other entities receiving federal-aid funds identify and address disproportionately high and adverse human health and environmental effects of its programs, policies, and activities on minority populations and low-income populations. In the context of transportation funding, environmental justice requires analysis of potential environmental impacts; full and fair public participation by identified populations in the transportation decision-making process; implementation of strategies to avoid, minimize, or mitigate "significant and adverse environmental justice impacts"; and procedures to prevent the denial, reduction, or delay in benefits received by minority and low-income populations."

The LPA must ensure the data collected is used to examine and evaluate the equitable distribution of benefits and burdens of transportation investments. The data collected should reflect community boundaries, racial, and ethnic makeup, income level, sex, age, disabilities, community services, LEP populations, etc.

To ensure compliance with Title VI environmental justice and public hearings requirements, it is the LPA's responsibility to:

- ▶ Review the project scope and applicable environmental justice documents to ensure compliance with Title VI, as amended
- ▶ Submit the notice for public information meetings and public hearings for review. Notices will be reviewed to ensure that the meetings will be conducted at convenient and accessible locations at convenient times and that the appropriate Title VI language is included (locality ensures nondiscrimination and equal

employment in all programs and activities in accordance with Title VI and Title VII of the Civil Rights Act of 1964).

- ▶ Provide the notice in foreign languages, as applicable, to affected communities and LEP populations
- ▶ Schedule meetings in facilities and at times accessible to people with disabilities, as defined under the ADA and Section 504 of the Rehabilitation Act, and in locations accessible by public transportation
- ▶ Attend meetings; collect demographic statistical data of meeting participants (race, color, sex, and national origin) and forward any Title VI concerns or allegations to the ADOT CRO

The ADOT EPG website contains several useful resources related to environmental justice, including an overview, guidance on how to comply with environmental justice requirements, and a flowchart that helps identify the level of documentation required. FHWA also offers an Environmental Justice website that includes an overview of environmental justice requirements. See the Resources list at the end of this chapter for links to those resources. Information about environmental requirements for LPA projects is also contained in Chapter 9, Environmental Clearances.

Equal Employment Opportunity

EEO, or nondiscrimination, regulations require that no person is to be subjected to discrimination because of race, color, religion, sex, national origin, age, or disability. The goal of EEO is increased participation of minorities and women in the workforce; this extends to contractor practices in recruitment, hiring, pay, training, promotion, and retention. ADOT is required to ensure that no person is subjected to discrimination in connection with any activity, including any contract that receives federal assistance.

Consultant Requirements

All prime consultants are required to prequalify for ADOT contracts annually. As part of this prequalification process, consultants are required to include an affirmative action plan that includes the following EEO policy statement:

It is the policy of this company to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age, or disability. Such actions 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/or on-the-job training.

Affirmative action is defined as a good-faith effort to eliminate past and present discrimination and to ensure that future discriminatory practices do not occur. A link to ADOT Information Bulletin 09-13, *2010-2011, Consultant Prequalification*, is provided in the Resources list at the end of this chapter.

Contractor Requirements

EEO requirements apply to all federal-aid construction contracts and to all related subcontracts of \$10,000 or more. The nondiscrimination provisions extend to the contractor's employment practices, solicitations for employment, selection of subcontractors and suppliers, and procurement of materials.

The special provisions in Appendix A of 23 CFR 230A and in FHWA Form 1273 must be included in the advertised bidding proposal and included in each contract and each covered federally funded highway construction subcontract. LPAs self-administering the construction phase or certified to manage the construction phase are required to ensure that the special provisions are included in the advertised bidding proposal and are physically included in the contract for each federally funded LPA contract and each covered subcontract (vendor, manufacture, etc). See Chapter 18, Contracting, Consultant Selection, and Procurement, for additional details.



Failure to comply with EEO requirements may result in withholding payment on the contract, or even cancelation of the contract.

To meet EEO requirements, contractors must:

- **Adopt the following policy statement**, which prohibits discrimination and provides for affirmative action in employment practices:

It is the policy of this company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, 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/or on-the-job training.

- **Designate an EEO officer.** The contractor is required to have a designated EEO officer who has the responsibility and authority to administer the contractor's EEO Program.
- **Not discriminate in recruitment practices** and should make an effort to identify sources of potential minority and women employees.
- **Educate employees** who have an active role in the hiring, supervision, or advancement of employees about the contractor's EEO policy. In addition, it is required that employees, including applicants and potential employees, be informed of the contractor's EEO policy through posted notices, posters, handbooks, and employee meetings. See Section 107.04 of the ADOT *Construction Manual* and the FHWA Job Site Posters website as referenced in the Resources list at the end of this chapter for lists of posters that must be posted.
- **Conduct reviews for evidence of discriminatory treatment and promptly investigate alleged discrimination complaints.**
- **Help build skills of minorities, women, and applicants by advising them of training programs** (see the On-the-Job Training section of this chapter for more details on training requirements).

To ensure contractors meet EEO requirements, LPAs are required to:

- Conduct pre-construction conferences that include a discussion of EEO special provisions for federal-aid contracts.
- Ensure that the contractor posts and maintains notices and posters setting forth the contractor's EEO policy on a bulletin board in an area readily accessible to employees, applicants for employment, and the

public. See Section 107.04 of the ADOT *Construction Manual* and the FHWA Job Site Posters website as referenced in the Resources list at the end of this chapter for lists of posters that must be posted.

- Monitor on-site compliance with EEO special provisions of federal-aid contracts.
- Ensure the preparation and timely submittal of all required contractor EEO reports.

On-the-Job Training

The purpose of on-the-job training (OJT) requirement is:

- To ensure that contractors working on highway construction projects have representative labor forces
- To improve access to skilled trade jobs and journeyworker positions for women, minorities, and disadvantaged individuals
- To broaden the labor pool
- To ensure that an adequate number of journey workers are available in each craft

FHWA requires ADOT to implement an OJT Program. The OJT Program requires that a majority of the training positions on a project be filled by women, minorities, or disadvantaged individuals for trades in which they are underrepresented.

ADOT establishes statewide training goals that must be approved by FHWA. ADOT C&S, in cooperation with ADOT CRO, will assign project-specific training goals—the actual number of training positions or slots required on the project. Goals are based on the following factors:

- Dollar amount of the project
- Type of work
- Availability of minorities and women for training
- Geographic location of the project
- Duration of the work

OJT requirements must be included in the contract's training special provisions and should specify the number of trainees that are to be assigned to skilled construction crafts. Contractors must develop an approved training program, either an apprenticeship program registered with the Arizona Department of Education or an in-house program approved by FHWA, before work begins on the project.

Contractors may request assistance from the CRO in creating their program. The program should outline the specifics of how interested participants will be trained to the journeyworker level. This includes but is not limited to:

- Hours to learn each of the major work processes
- Related instruction for non-OJT learning experiences, such as blueprints or math
- Periodic wage increases, at least once per year of training
- Recruitment plans to include women and minorities



Contractors must develop and have their training program approved before the start of the project.

On each project, contractors must:

- ▶ Develop a training plan specifically for the current project. The training plan must contain the contractor's commitment for the number of people to be trained for each selected classification and the type of training programs offered. Training plans must be approved by ADOT.
- ▶ Provide training. Once the contractor's training plan has been finalized and approved by ADOT, trainees may begin hands-on training at the project site.
- ▶ Periodically evaluate training for adequacy. The contractor must periodically evaluate the training provided, including each trainee's progress.
- ▶ Complete required reporting.

Contractor Recordkeeping Requirements for On-the-Job Training

Contractors must keep individual records for each trainee in their training program. Records must include:

- ▶ A copy of the training agreement signed by the trainee
- ▶ A record of the related instruction classes completed by the trainee
- ▶ A record of the training hours achieved in each of the work processes
- ▶ Evidence of the trainee's promotion to a new pay grade when sufficient training has been completed
- ▶ Maintenance of records for a minimum of 5 years after the trainee's exit from the program, whether the trainee completes the program, leaves the training program, or leaves the contractor's employ



Contractor training plans must be reasonable and realistic based on the job-skill classification and the demands of the project. The hours specified in the training plan must be consistent with the project's duration.

The required training hours of the contractor's training program must be long enough for the trainee to obtain journeyworker status. No training program less than 2,000 hours long will be approved.



Only approved training programs may be included in the training plan. Apprenticeship programs registered with the Arizona Department of Education are accepted pending their approval by the U.S. Department of Labor Employment and Training Administration. For further clarification, contact ADOT CRO.

Recordkeeping and Reporting Requirements

Contractor Requirements

Contractors are required to maintain records that document compliance with EEO policy and to retain them for 5 years following FHWA closeout of the project in the FMIS. These records should include the numbers of minority, women, and nonminority employees in each work classification on the project, as well as the progress and effort being made to increase employment opportunities for minorities and women.

The contractor is required to submit an annual EEO report to ADOT each July, for the duration of the project. If the project contains OJT, this information is also required to be collected and reported.

Americans with Disabilities Act

The ADA and Section 504 of the Rehabilitation Act of 1973 prohibit discrimination on the basis of *disability* in employment and in all activities, services, and programs in state and local government services. These regulations require that all entities receiving federal aid ensure nondiscrimination on the basis of disability and ensure that people with disabilities have equitable opportunities to use the public transportation system. Title 28 CFR 35 further requires that any facilities constructed for public use, or on behalf of a public entity, be designed and built so that they are accessible to, and can be used by, individuals with disabilities. Government agencies with 50 or more employees are responsible for the preparation of an ADA transition plan to identify and address deficiencies that limit access to programs, services, and activities by people with disabilities related to facilities and roadways within their respective jurisdictions (28 CFR 35.150[d]). For links to FHWA's website for the ADA and Section 504 of the Rehabilitation Act of 1973 and the ADOT *PER-2.01 Americans with Disabilities Policy*, refer to the Resources list at the end of this chapter.

As with other nondiscrimination regulations, the ADA is applicable throughout the life cycle of a project and must be considered by the LPA during all hiring and selection processes. In addition, the LPA must also be careful to consider ADA compliance for the following contexts:

- The environmental planning stage, when impacts on people with disabilities must be considered.
- Public meetings, which must be held in locations that are ADA accessible.
- The design phase, since all buildings, facilities (sidewalks, curb ramps, etc.), and public ROWs must meet the guidelines in the U.S. Access Board *Guidelines for Accessible Public Rights-of-Way* and the *ADA Standards for Transportation Facilities* and since features such as sidewalks, curb ramps, pedestrian

access routes, and signals must be built to be accessible to individuals with disabilities. Links to those guidelines are referenced in the Resources list at the end of this chapter.

- ▶ Construction and work zones, since public ROWs must be free from obstruction or temporary access must be provided for individuals with disabilities.



All LPAs must meet current ADA requirements and follow the guidelines listed in the ADA Accessibility Guidelines. Refer to the ADA Standards Homepage for the current standards and accessibility guidelines.

Americans with Disabilities Act Complaints

If an LPA has any complaints that ADOT has not followed ADA policies or procedures, a formal complaint may be submitted to ADOT CRO. ADA complaints against ADOT must be filed in writing and must be in accordance with the policy and procedures outlined in Section 1.08 of the ADOT *PER-2.01 Americans with Disabilities Policy*. ADOT CRO will assist complainants as needed (e.g., providing sign-language interpreters and print-data access such as large print, Braille, or audiotape) during the complaint process. See the Resources list at the end of this chapter for a link to ADOT's ADA website and *PER-2.01 Americans with Disabilities Policy*, which includes procedures for filing complaints.

For ADA complaints within the LPA, between the LPA and their MPO or COG, or between the LPA and their consultants or contractors, the LPA should contact their own civil rights coordinator or the applicable MPO or COG civil rights coordinator and follow the applicable complaint procedures. However, the LPA may contact ADOT CRO for assistance with questions regarding state and federal requirements.

Disadvantaged Business Enterprises

ADOT has established a DBE Program, in accordance with U.S. Department of Transportation regulations 49 CFR 26, to foster equal opportunity in transportation contracting, to promote participation by socially and economically disadvantaged small businesses (including minority- and women-owned enterprises), and to help address the effects of past discrimination. The overall goal of the program will be met through race-neutral and race-conscious means or project goals. It is ADOT's policy to ensure that DBEs have an equal opportunity to receive and participate in federally funded projects. In accordance with federal law, a certain percentage of the amount of federal-aid highway project funding must be expended by certified DBEs, which will be determined on a project-specific basis and for on-call contracts. The CRO administrator has been designated as the DBE liaison officer and is responsible for implementing all aspects of the DBE Program. See the ADOT CRO website, for more information on the DBE Program.

Each LPA, subrecipient, and federal-aid grantee must complete a Sub-Recipient DBE Program Compliance Statement and have its executive officer sign the statement. In accordance with the compliance statement, all LPAs, subrecipients, and grantees agree to the following:

- ▶ Use of solicitation language provided by ADOT defining DBE requirements for all construction, professional services, and procurement contracts
- ▶ Submittal of DBE goal requests using the DBE Goal Request Form
- ▶ Conduct postaward monitoring and reporting using the online LPA DBE Data Collection and Reporting System
- ▶ Ensure postaward compliance with commercially useful functions
- ▶ Designate a single point-of-contact for DBE compliance purposes

Additionally, all LPAs, subrecipients, and grantees agree to collect the following information for each solicitation for which a DBE contract goal has been established:

- ▶ Names and contact information of DBE firms that will participate in the contract
- ▶ Description of the work that each DBE will perform
- ▶ Dollar amount of the participation of each DBE firm participating on the project
- ▶ Written and signed documentation of commitment to use a DBE subcontractor whose participation meets a contract goal
- ▶ Written and signed confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment
- ▶ Evidence of good-faith efforts if the contract goal is not met

Recordkeeping and Reporting Requirements

LPAs, subrecipients, and grantees will require prime contractors, consultants, and vendors to maintain records and documents of payments to DBE and non-DBE subcontractors. In accordance with ARS 35-214, records must be maintained for a minimum of 5 years following FHWA closeout of the project in the FMIS. These records should be made available for inspection upon request by any authorized ADOT CRO representative. Subcontractors are required to maintain payment information for any lower-tier subcontractors for the same 5-year duration.

For projects receiving federal aid, LPAs, subrecipients, and grantees are required to collect data on DBE and non-DBE participation and report the data to the CRO. Contractors, consultants, and vendors performing on federal-aid projects are required to provide monthly reports documenting amounts earned by and paid to all DBEs and non-DBEs. All DBE and non-DBE subcontractors working on federal-aid transportation projects are required to verify receipt of payment. Furthermore, first-tier subcontractors are required to report amounts earned by and paid to all lower-tier DBE and non-DBE subcontractors. Lower-tier subcontractors are required to verify receipt of payment. Contractors, consultants, and vendors should provide the required information for the current month by the 5th day of the following month. The required information must be submitted through the online LPA DBE Data Collection and Reporting System (see the Resources list at the end of this chapter for a link to that system).

Additionally, LPAs, subrecipients, and grantees will submit project data in support of each semiannual and annual submission made by the CRO. Subrecipients are required to submit this data through the online LPA DBE Data Collection and Reporting System. Semiannual report data must be audited by LPAs, subrecipients, and grantees

for accuracy and completeness by May 1 and November 1 of each year. Semiannual reports will be prepared by ADOT and reviewed with LPAs, subrecipients, and grantees on an as-needed basis.



CALENDAR WATCH

Contractors, consultants, and vendors on federal-aid projects should provide the required information on DBE and non-DBE participation to LPAs, subrecipients, and grantees on a monthly basis, by the 5th day of the following month. Semiannual report data must be audited by LPAs, subrecipients, and grantees for accuracy and completeness by May 1 and November 1 of each year.

Davis-Bacon Act

The Davis-Bacon Act dictates that laborers and mechanics working on the site of federal-aid construction projects must be paid according to the wage decision incorporated into the contract through the special provisions contained in FHWA Form 1273. The DBRA are enumerated in the Department of Labor's regulations at 29 C.F.R. § 5.1, including the Federal Aid Highway Acts, as amended. 23 U.S.C. § 113, part of the federal aid highway act, provides statutory authority for applying Davis-Bacon to federally-funded federal aid highways. Laborers and mechanics are defined as those employees who perform manual labor at the project site. Apprentices and trainees are also considered to be laborers and mechanics working on federal-aid construction projects and must be paid at least once a week at the wage rates specified in the registered program for the apprentice's or trainee's level of progress, expressed as a percentage of the journeymen hourly rate specified in the wage decision incorporated in the contract. DBRA requirements can be excluded from LPA-matched federal-aid transportation projects only if they meet one of the following project categories:

- ▶ Roadway functionally classified as local roads or rural minor collectors (FHWA 1273 IV.)
- ▶ Force-account work performed solely by the LPA
- ▶ Exploratory drilling services, which include SUE or utility location services
- ▶ Railroad and utility adjustments performed by a public utility or railroad force or the relocation performed by a contractor engaged by the utility or railroad (however, Davis-Bacon requirements apply when utility relocation work is part of a construction project to be performed by the construction contractor or subcontractor)

Self-administering and certified LPAs should contact their ADOT project manager or the ADOT CRO to ensure that the most recent wage determinations are included in the contract for each project that requires Davis-Bacon wages.



Continued violation of Davis-Bacon Act requirements could result in:

- Withholdings and liquidated damages
- Termination of the contract
- Legal prosecution and debarment

Recordkeeping and Reporting Requirements

Contractors are required to maintain labor compliance records using ADOT’s online DBE Contract and Labor Compliance Certified Payroll System (see the Resources list at the end of this chapter for a link to that system). This system allows contractors to record worker classifications and to demonstrate that workers were paid promptly according to the wage determinations incorporated into the contract documents.

Indian Preference in Employment

Title 23 USC 140(d) allows for Indian preference in employment for projects on Indian reservation roads and on federal-aid highway projects carried out near Indian reservations. Roads “near” an Indian reservation are those within a reasonable commuting distance from the reservation. All Indians are eligible for employment preference without regard to tribal affiliation.

During project development, the ADOT project manager should facilitate coordination with the Indian tribe and appropriate Tribal Employment Rights Office (TERO) to determine Indian employment goals for the project. Many tribes have established a TERO tax, which is applied to contracts for projects performed on the reservation. For projects completed off a reservation, tribes cannot impose this tax but can bill contractors at an agreed-upon rate for services rendered, for example, recruitment and employee referral. If the TERO tax rate on highway construction contracts is the same as that imposed on other contracts on the reservation, such costs are eligible for federal-aid reimbursement.



During the development of projects located on or near an Indian reservation, the ADOT project manager should facilitate coordination with the Indian tribe and TERO to determine Indian employment goals. The contract should also include sanctions for failure to meet Indian employment goals to facilitate enforcement.

Recordkeeping and Reporting Requirements

When an Indian employment goal is a part of contract oversight, procedures should be established for compliance. Oversight can be performed by ADOT CRO, by members of the TERO or the Tribal Employment and Contracting Rights Office, or by designated tribal council representatives. Sanctions for failure to meet Indian employment goals should be determined in advance and made part of the contract to facilitate enforcement.

Roles and Responsibilities

Roles and responsibilities related to civil rights for self-administered and Certification Acceptance projects are summarized in Table 16-1. For more information on ADOT and FHWA roles and responsibilities regarding adherence to civil rights policies, see the *FHWA and ADOT Stewardship and Oversight Agreement for Arizona* provided on the FHWA website or contact ADOT CRO (see Appendix A for contact information).

ADOT-Administered Projects

For ADOT-administered projects, ADOT is responsible for instituting, enforcing, and monitoring all civil rights programs and for investigating and reporting all complaints. However, the LPA, along with ADOT, is responsible for ensuring compliance with all civil rights programs associated with federal-aid projects.

Self-Administered Projects

If the LPA is self-administering ROW and relocation assistance activities, the bidding and award of contracts, or construction and contract administration processes, it must ensure compliance with applicable civil rights laws and regulations. Responsibility for implementation of civil rights programs is given to the LPA with ADOT approval. For the self-administering LPA, approval authority for EEO and DBE Programs is retained by FHWA and ADOT. The LPA must ensure that all contractors are collecting federal labor compliance documentation (including EEO, DBE, and OJT, if applicable) in accordance with the federal-aid process and must ensure that the contractor performs compliance reporting to ADOT CRO.

Certification Acceptance Projects

For projects administered by a certified LPA, ADOT is responsible for ensuring compliance with civil rights laws and regulations throughout the project life cycle. However, the LPA (with approval from ADOT) is responsible for implementation of key civil rights programs, such as EEO and DBE Programs. ADOT reviews DBE requirements for the procurement of consultants and for construction projects and establishes project-specific DBE percentage requirements for the LPA. ADOT also retains the right to monitor Certification Acceptance projects for compliance and to alert the LPA if it is not complying with civil rights requirements and therefore jeopardizing project authorization and funding. The LPA must ensure that all contractors are collecting federal labor compliance documentation (including EEO, DBE, and OJT, if applicable) in accordance with the federal-aid process and must ensure that the contractor performs compliance reporting to ADOT CRO.

**Table 16-1 Roles and Responsibilities for Civil Rights—
Self-Administered and Certification Acceptance Projects**

Task	LPA	ADOT	FHWA
Title VI Program and program update	Comply	Prepare and submit to FHWA	Review and act upon
ADOT Title VI Plan	Comply	Prepare and submit	Review and approve
LPA Title VI Program plan and nondiscrimination agreement	Prepare	Review and approve	Review and concur
Discrimination complaints against the LPA	Submit complaints to ADOT CRO	Review and make determination	Approve determination
Discrimination complaints against ADOT	N/A	Submit complaints to FHWA	Review and make determination
Title VI accomplishment report	Prepare	Review and approve	Review
DBE Program annual goal	Ensure compliance	Prepare and submit to FHWA annually	Review and approve
DBE Program plan revisions	N/A	Prepare and submit program changes to FHWA as required	Review and act upon
Project-specific DBE Program goals	Implement DBE program (with ADOT approval); Ensure contractor compliance with reporting requirements	Prepare and submit as part of the PS&Es package	Review and accept
Affirmative action plan	Develop and submit to ADOT for approval	Review and approve	Review and approve
State internal EEO affirmative action plan and annual updates	Implement EEO Program (with ADOT approval); include EEO specifications in project special provisions	Prepare and submit to FHWA annually	Review and act upon
Annual contractor employment report	Ensure contractor compliance with reporting requirements	Prepare and submit to FHWA annually	Review and file; submit to FHWA headquarters
Schedule and reports for contractor compliance review	Ensure contractor compliance with reporting requirements	Prepare and submit to FHWA upon completion	Review and act upon

Task	LPA	ADOT	FHWA
OJT Program	Ensure compliance, if applicable; complete OJT pre-construction form; include OJT Program in special provisions	Implement an OJT Program; establish statewide training goals and submit to FHWA for approval; assign project-specific training goals; review and approve project-specific OJT special provisions; assess training-hour requirements on a project-by-project basis	Review and approve ADOT's goals and special provisions (with the exception of project related training hours)
ADA transition plan	Prepare and submit to FHWA; ensure compliance	Prepare and submit to FHWA	Review and act upon
Indian preference in employment on federal-aid highway projects on and near Indian reservations, if applicable	LPA must ensure compliance Tribal governments will facilitate coordination with TERO and with the Tribal Employment and Contracting Rights Office to establish employment goals; and will ensure compliance	Facilitate coordination with TERO and with the Tribal Employment and Contracting Rights Office; ensure compliance	Provide information and assistance as needed

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RESOURCES

Americans with Disabilities Act (ADA) Standards Homepage (including ADA Standards and Accessibility Guidelines)

<http://www.access-board.gov/>

ADA Standards for Transportation Facilities

<http://www.access-board.gov/guidelines-and-standards/transportation/facilities/about-the-ada-standards-for-transportation-facilities>

ADOT ADA Website

<http://www.azdot.gov/business/civil-rights/americans-with-disabilities-act-transition-plan>

ADOT Civil Rights Office

<http://www.azdot.gov/business/civil-rights>

ADOT Civil Rights Office Disadvantaged Business Enterprises (DBE) Goal Request Form submittals

<https://adot.dbesystem.com/frontend/welcome.asp>

ADOT Construction Manual

<http://www.azdot.gov/business/engineering-and-construction/construction/ConstructionManual/construction-manual>

ADOT Contract Compliance Program (including On-the-Job Training Program information)

<http://www.azdot.gov/business/business-engagement-and-compliance/on-the-job-training-program/ojt-contract-compliance>

ADOT DBE Program

<http://www.azdot.gov/business/business-engagement-and-compliance/disadvantaged-business-enterprise-program>

- ADOT Certification of Payments Form
<http://www.azdot.gov/docs/business/certificate-of-dbe-payments.pdf?sfvrsn=0>
- ADOT DBE Intended Participation Affidavit - Consultant
<http://www.azdot.gov/docs/default-source/businesslibraries/dbe-intended-participation-affidavit-consultant.pdf?sfvrsn=4>
- ADOT DBE Intended Participation Affidavit - Subconsultant
<http://www.azdot.gov/docs/default-source/businesslibraries/dbe-intended-participation-affidavit-subconsultant.pdf?sfvrsn=4>

- ADOT DBE Program Frequently Asked Questions
<http://www.azdot.gov/docs/business/dbe-faqs.pdf?sfvrsn=0>
- ADOT DBE Training and Technical Assistance
<https://www.azdot.gov/business/business-engagement-and-compliance/supportive-services-program/training-and-technical-assistance>

ADOT DBE Program Forms:

- Subconsultant Waiver Add or Replace Request Form
<http://mpd.azdot.gov/docs/business/dbe-subconsultant-waiver-add-or-replace-subconsultant.pdf?sfvrsn=0>
- Business Registration Form
<http://www.azdot.gov/business/business-engagement-and-compliance/business-registration-and-certification/disadvantaged-business-enterprises-%28dbe%29-certification>
- DBE Compliance
<https://adot.dbesystem.com/FrontEnd/Vendors.asp?TN=adot&XID=5>

ADOT DBE Program Online Certification

<https://adot.dbesystem.com/FrontEnd/StartCertification.asp?TN=adot&XID=4134>

ADOT DBE User Manual

<http://www.azdot.gov/docs/business/user-manual.pdf?sfvrsn=0>

ADOT Engineering Consultants Services Section DBE Program

<http://www.azdot.gov/business/engineering-consultants/DisadvantagedBusinessEnterprise%28DBE%29Program>

ADOT Environmental Planning Group Environmental Justice Website

<http://www.azdot.gov/business/environmental-services-and-planning/environmental-guidance-documents/nepa-process-guidance/title-vi-and-environmental-justice>

ADOT Information Bulletins, including Consultant Prequalification

<http://www.azdot.gov/business/engineering-consultants/InformationBulletins>

ADOT Local Public Agency DBE Data Collection and Reporting System

<https://arizonalpa.dbesystem.com>

ADOT Online DBE Contract and Labor Compliance Certified Payroll System

<https://adot.dbesystem.com/Default.asp?TN=adot&XID=230>

ADOT Policies and Procedures, PER-2.01 Americans with Disabilities Policy (including Complaint Procedures)

http://www.azdot.gov/docs/default-source/ada-library/adot_ada_policy_grievance_procedure_2012.pdf?sfvrsn=2

ADOT Title VI Program

<http://www.azdot.gov/business/civil-rights/title-vi-nondiscrimination-program/overview>

- ▶ ADOT Title VI Complaint Procedures
<http://www.azdot.gov/business/civil-rights/title-vi-nondiscrimination-program/filing-a-complaint>
- ▶ ADOT Title VI Complaint Form
<http://www.azdot.gov/business/civil-rights/title-vi-nondiscrimination-program/filing-a-complaint>
http://www.azdot.gov/docs/business/title_vi_complaint_form.pdf?sfvrsn=2
- ▶ ADOT Title VI Implementation Plan
<http://www.azdot.gov/docs/business/title-vi-implementation-plan.pdf?sfvrsn=2>

Arizona DBE Program

<http://www.azdot.gov/business/engineering-consultants/DisadvantagedBusinessEnterprise%28DBE%29Program>

Federal Agency LEP Guidance and Language Access Plans

http://www.justice.gov/crt/lep/guidance/guidance_index.html

FHWA ADA/Section 504 of the Rehabilitation Act of 1973

<http://www.fhwa.dot.gov/civilrights/programs/ada.htm>

FHWA and ADOT Stewardship and Oversight Agreement for Arizona

<http://www.fhwa.dot.gov/federalaid/stewardship/agreements/az.cfm>

<http://www.azdot.gov/business/engineering-and-construction/traffic/traffic-safety/stewardship-and-oversight-agreement-for-arizona>

FHWA DBE Program

<http://www.fhwa.dot.gov/civilrights/programs/dbess.htm>

FHWA Environmental Justice Website

<http://www.fhwa.dot.gov/environment/ej2.htm>

FHWA Form 1273, Required Contract Provisions: Federal-Aid Construction Contracts

<http://www.fhwa.dot.gov/programadmin/contracts/1273>

<http://www.fhwa.dot.gov/programadmin/contracts/1273/1273.pdf>

FHWA Indian Preference in Employment on Federal-Aid Highway Projects on and Near Indian Reservations

<http://www.fhwa.dot.gov/legsregs/directives/notices/n4720-7.htm>

FHWA Job Site Posters Website

<http://www.fhwa.dot.gov/programadmin/contracts/poster.cfm>

FHWA Office of Civil Rights

<http://www.fhwa.dot.gov/civilrights/index.htm>

FHWA Questions and Answers about ADA/Section 504

http://www.fhwa.dot.gov/civilrights/programs/ada_sect504qa.htm

FHWA Resource Center Civil Rights Technical Service Team

<http://www.fhwa.dot.gov/resourcecenter/teams/civilrights/index.cfm>

FHWA Title VI of the Civil Rights Act of 1964

http://www.fhwa.dot.gov/environment/title_vi.htm

Participation by DBE in Department of Transportation Financial Assistance Programs (49 CFR 26)

<http://www.fhwa.dot.gov/hep/49cfr26.htm>

State of Arizona DBE Program

<http://azdbe.org/>

Arizona State Procurement Office Small/Women-Owned/Minority-Owned Businesses

<http://spo.az.gov/>

U.S. Access Board Guidelines for Accessible Public Rights-of-Way

<http://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way>

U.S. Department of Justice Americans with Disabilities Act Website

<http://www.ada.gov/>

U.S. Department of Justice Title VI Legal Manual

<http://www.justice.gov/crt/about/cor/coord/vimanual.php>

U.S. Department of Labor Technical Assistance Guide for Federal Construction Contractors

<http://www.dol.gov/ofccp/TAguides/ctaguide.htm>

CHAPTER 17

Financial Management/Reimbursement



Introduction

This chapter provides an overview of the financial requirements and procedures for federally funded LPA transportation projects (Figure 17-1). Information regarding project funding, including authorization and obligation of federal-aid funds, as well as reimbursement of project costs are discussed.

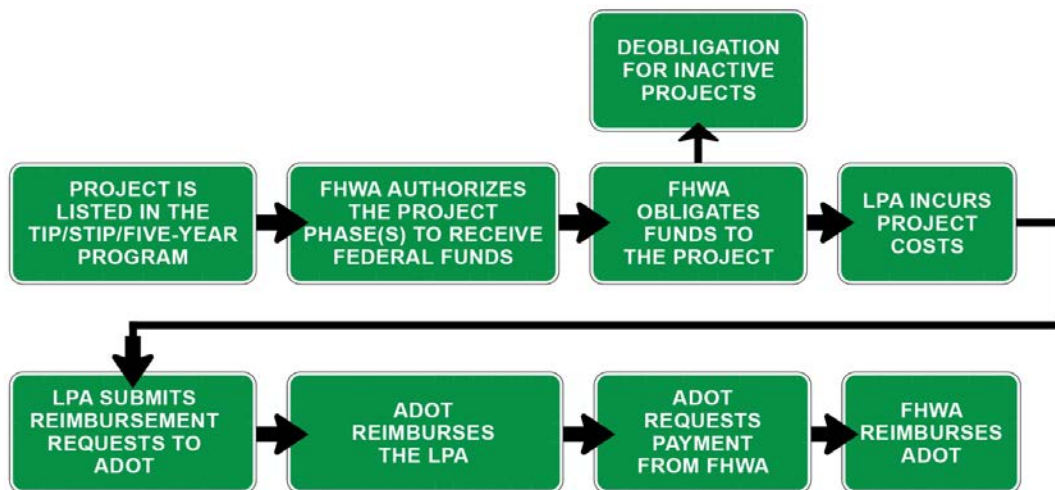


Figure 17-1 Financial Management and Reimbursement Process

Overview of Financial Management

Financial management involves following ADOT and FHWA policies and procedures through the life of a project, such as obtaining funds for a project, understanding and managing project costs, and requesting reimbursement. To obtain federal-aid funds, the project must be listed in a TIP and in the STIP (see Chapter 6, Planning/Programming, for more information). For ADOT-administered and self-administered projects, the LPA must also have an IGA in place with ADOT before federal authorization of funds. IGAs are legally binding documents that define the obligations of all parties involved in a project, and represent the LPA's promise to pay project costs above the federal pro rata amount. Refer to Chapter 2, ADOT Administration, for more information on IGAs.



To receive federal-aid funding, all projects must be included in a TIP and in the STIP to be authorized by FHWA. The TIP and STIP must specify which project phase federal funds will be used for (preliminary engineering, ROW, or construction).

Funding

LPA projects may be eligible for federal funding under the FAHP. The FAHP does not provide funds to the LPA up front. Instead, the FAHP makes funds available to FHWA, which reimburses ADOT for the federal share (pro rata amount) of approved projects as costs are incurred by the LPA. ADOT, in turn, will reimburse the LPA. The LPA is responsible for project funding not provided by FHWA (the local match) for LPA projects. FAHP funds are made available in a three-step process: authorization, obligation, and reimbursement. Detailed information about project funding, funding sources, and funding authorization is available in Chapter 6, Planning/Programming.



CAUTION

The LPA must submit payment of the local matching funds to ADOT within 30 days of execution of the IGA.



CALENDAR WATCH

Plan accordingly. While the start of the federal fiscal year is October 1, LPAs should submit all authorization request paperwork to their ADOT project manager by June 1 for processing. ADOT and FHWA need sufficient time to authorize by June 30 and obligate federal-aid funding before their September 15 deadline.

Obligating Federal-Aid Funds

Once projects have been authorized by FHWA, they are eligible for obligation of federal-aid funds. This step is a legal commitment by FHWA to reimburse ADOT for the authorized federal portion of the project. Project reimbursement covers a percentage of eligible costs incurred. Since allowable project costs are based on prior scoping, it is important that project documents accurately reflect all costs and that estimated project costs take into consideration the expected year of expenditure to account for anticipated inflation; otherwise, there may be insufficient federal funds to complete the project as initially planned. Obligations must be based on the current estimated cost of the project, and are revised if the cost of the project changes. Therefore, ADOT requires LPAs to provide information about project costs periodically. Obligations are good for a single fiscal year and must be “rolled forward” if the project extends beyond that year. LPAs should notify the ADOT project manager if their

project is behind schedule. The ADOT project manager will initiate the request to obligate funds for the upcoming fiscal year. Obligated funds must be used on a project-by-project basis and cannot be banked (i.e., saved for future use).



CALENDAR WATCH

Design of LPA projects must begin within 1 year of when the project is authorized and obligated for federal-aid funds.

Deobligating Federal-Aid Funds

Federal funds may be deobligated if the amount obligated exceeds the current cost of the project, or if the project becomes inactive. Deobligated funds are not property of the LPA; they are returned to FHWA for redistribution either by ADOT or by FHWA to other states, unless the funds have lapsed (expired). Project reimbursement is only provided for the percentage of eligible costs incurred. Deobligated federal funds cannot be banked; they must be used on a project-by-project basis.



CAUTION

In July 2011, ADOT introduced new IGA provisions for completing projects funded through the FAHP. Additional provisions specify timelines for deobligation of federal funds following project closeout. See Attachment 2-3, IGA Provisions Regarding Project Completion and Obligation/Deobligation for more information.

Inactive Federal-Aid Projects

Federal-aid funds may be deobligated if the project becomes inactive, as defined in 23 CFR630A. Inactive projects are those with unspent federal funding obligation, meaning that no expenditures have been charged to the federal funds within certain time frames. Inactive projects are classified in one of three tiers based on the following criteria (23 CFR 630.106[a][5]):

- ▶ Projects inactive for the past 12 months with unspent balances more than \$500,000
- ▶ Projects inactive for the past 24 months with unspent balances of \$50,000 to \$500,000
- ▶ Projects inactive for the past 36 months with unspent balances less than \$50,000

ADOT is required by federal law to reclaim any unspent funding from a project within 90 days of the date of award and project completion. One of the most frequent factors leading to an inactive project is the lack of invoicing and closeout notification from LPAs. Therefore, ADOT has instituted the following deadlines for LPA projects being self-administered or those administered under the Certification Acceptance Program:

- ▶ **Begin invoicing within 9 months of initial authorization.** Projects that fail to invoice in this time frame, or do not provide sufficient justification regarding the delay with an expected project start date, may be subject to deobligation after 12 months from the date of initial federal-aid authorization.
- ▶ **Invoice at least once every 90 days during the project.** Projects that do not invoice regularly, do not provide insufficient justification regarding the delay, do not provide an expected date on which activity will resume, or when an invoice will be provided, may be subject to deobligation after 12 months from the date of the last invoice.
- ▶ **Notify ADOT within 60 days of the completion of federal-aid projects.** Since ADOT is required to deobligate unspent funding within 90 days, LPAs need to provide written notification of the completion of a project within 60 days of completion (LPA projects may include a 1-year warranty). This allows ADOT 30 days to process documents required for deobligation.



CALENDAR WATCH

The most frequent factors that cause projects to become inactive are the failure to invoice or provide closeout notification. LPAs should begin invoicing within 9 months of the initial authorization and should invoice at least every 90 days during the project. LPAs must notify ADOT in writing within 60 days of the completion of the project, to avoid having their project classified as inactive. LPAs that do not provide sufficient justification or action regarding a project may lose their funding.

LPAs, their respective MPO or COG, and ADOT project managers will be notified by ADOT LPA Section at least 30 days in advance of projects that risk becoming inactive in order to allow issues to be resolved. Upon completion of a project and payment of the final estimate, ADOT will deobligate excess federal-aid funds if a final voucher cannot be processed within 90 days. Generally, federal funds can be reapplied at the time of final voucher if needed.



CAUTION

Since federal-aid obligations are based on prior scoping, it is important that project documents accurately reflect all costs and that estimated project costs take into consideration the expected year of expenditure to account for anticipated inflation; otherwise, LPAs risk insufficient federal-aid funding to complete a project.

Failure to Complete Projects

For a variety of reasons, an LPA may choose not to complete a project. LPAs must repay the amount of federal or state funds reimbursed to date for projects that are cancelled or not completed. Title 23 USC 102(b), as amended by SAFETEA-LU, requires repayment of all federal-aid reimbursements for preliminary engineering costs on any project that has not advanced to ROW acquisition or construction within 10 years after federal aid was first made available. ADOT and FHWA may waive the repayment requirement, or extend the repayment of federal funds,

due to special circumstances. A written request from the LPA, with sufficient justification, should be sent to the ADOT project manager for consideration. Shifting political priorities or insufficient transportation budgets and staffing are not considered stand-alone justifications for time extensions.



CALENDAR WATCH

SAFETEA-LU requires repayment of all federal-aid reimbursements for preliminary engineering costs on projects that have not advanced to ROW acquisition or construction within 10 years after federal aid was first made available. However, ADOT and FHWA may waive the repayment requirement, or extend the repayment of federal funds, due to special circumstances.

Project Costs

ADOT Design-Review Costs

For ADOT-administered and self-administered projects, the LPA must execute an IGA with ADOT outlining the procedures ADOT will use to recover the design-review and bid-package preparation costs related to administering the development and advertisement of LPA projects. ADOT's budget does not include LPA projects; therefore, ADOT must recover the cost to administer these projects.

The ADOT project manager will request a federal-aid and TRACS project number (also referred to as "Advantage" under the ADOT accounting system) from the ADOT Administrative Services Division following a predesign conference with the LPA. LPAs will be assessed a fee to recover ADOT's costs for design-review and bid-package preparation while administering the development and advertisement of ADOT-administered LPA projects. The amount of the fee is currently under deliberation. The review fee is due at the time of project initiation (i.e., when the TRACS and federal-aid numbers are requested and assigned), and is not eligible for federal reimbursement. For additional information, see Chapter 2, ADOT Administration; Chapter 3, Self-Administration; and Chapter 4, Certification Acceptance.

Advertisement and Bid Costs

LPAs should be aware of the up-front costs associated with advertising and awarding construction and engineering services contracts. These include advertising for bids, reviewing statements of qualification, and negotiating the contract. Labor costs for time spent on these activities are not reimbursable with federal-aid funds. LPAs that use a consultant from ADOT's on-call list would not incur these costs.

Construction-Related Costs

LPAs should be aware of the following construction-related costs related to federal-aid projects:

- ▶ **Project review:** ADOT requires a fee of 1% of the final project construction estimate to cover postproject review. For further information, see the Stage V Design (100% Plans, Specifications, and Estimates) section of Chapter 8, Development/Design, and the Construction Administration section in Chapter 13, Construction.
- ▶ **Construction administration:** ADOT requires 15% of the engineers estimate to provide construction-administration services on ADOT-administered LPA projects. For more information, see the Stage V Design (100% Plans, Specifications, and Estimates) section of Chapter 8, Development/Design, and the Construction Administration section in Chapter 13, Construction.
- ▶ **Construction contingency:** ADOT requires a 5% contingency amount incorporated in the final cost estimate to cover potential changes in the scope of construction contracts for ADOT-administered projects. For further information, see the Stage V Design (100% Plans, Specifications, and Estimates) section of Chapter 8, Development/Design, and the Construction Administration section in Chapter 13, Construction.
- ▶ **Price adjustments:** According to 23 CFR 630B, price adjustments for materials may be made via the PS&Es for uncontrollable price volatility affecting contract prices, or when shortages are expected. Adjustments are not allowed after award for FHWA reimbursement, since contractors build that risk into their bids. For additional information, LPAs should contact their ADOT project manager.
- ▶ **Prevailing wage rates (Davis-Bacon Act, Copeland Act):** Federal regulations require federally funded construction projects that exceed \$2,000, or those that are being administered through 49 CFR 18 (known as the “Common Rule”), pay workers a predetermined minimum wage and file weekly statements of employee compensation. See the Davis-Bacon Act section in Chapter 16, Civil Rights for more information.
- ▶ **Contract changes/change orders:** Federal-aid funds obligated for a project must reflect current cost estimates. This estimate is included in the project agreement developed during project authorization. LPAs are responsible for costs resulting from change orders or contract changes that exceed the authorized amount of federal funding. See the Change Orders section in Chapter 13, Construction for more information.



A summary of estimated costs for ADOT to administer LPA projects is included in Chapter 2, ADOT Administration. LPAs applying for self-administration or Certification acceptance will also incur nonrefundable application review fees.

Reimbursement

Activities Eligible for Reimbursement

Aspects of the following activities may be eligible for federal-aid reimbursement by FHWA, as specified by Title 23 CFR and by Title 2 CFR 225 (formerly OMB Circular A-87):

- ▶ Highway planning
- ▶ Research and development

- ▶ Preliminary engineering
- ▶ ROWs
- ▶ Utility relocations
- ▶ Railroad-related services
- ▶ Construction
- ▶ Construction administration
- ▶ Services related to the review and defense of claims against federal-aid projects
- ▶ Other activities that relate to and help federal-aid projects but that are not listed in the above categories

**CAUTION**

To ensure LPA projects are fully reimbursed for all eligible incurred costs:

- Complete all required paperwork and submittals by specified deadlines
- Do not begin work before receiving required federal-aid funding authorizations
- Do not proceed beyond Stage III plans before completion of NEPA clearances
- Include mitigation measures in final PS&Es and bid documents per 23 CFR 635
- Be aware of and comply with other requirements, such as the requirement to follow consultant selection procedures or to complete projects within required time frames
- Understand and follow the invoicing and closeout timelines for self-administered and Certification Acceptance projects

Allowable Costs for Reimbursement

Allowable project costs are defined by Title 23 USC; by applicable OMB cost principles, 49 CFR 18.22 and 2 CFR 225 (formerly OMB Circular A-87); by agency program regulations; and by the terms of the IGA.

In general, allowable costs must be reasonable, necessary, and directly related to the specific project. Examples of allowable costs include but are not limited to salaries and wages (including benefits), travel and transportation, audit expenses, administrative settlement costs, and contract claims. Although 23 CFR 140 (Reimbursement) does not specifically mention some categories as eligible for federal-aid participation, the LPA may request approval of eligibility for specific items from FHWA before billing if it wishes to use federal funds. If approved, the written approval from FHWA should be submitted with the LPA's request for reimbursement for those items.

Basic Guidelines for Allowable Costs

Allowable costs must:

- ▶ Be necessary and reasonable for efficient performance and administration of the project.
- ▶ Be authorized or permitted under state or local laws or regulations.

- ▶ Conform to any limitations or exclusions regarding types or amounts of cost items set forth in federal laws, terms and conditions of the federal award, or other governing regulations.
- ▶ Be consistent with policies, regulations, and procedures that apply uniformly to both federal awards and existing government activities.
- ▶ Be billed consistently. An activity may not be billed to a federal award as a direct cost if a similar activity is billed to the federal award as an indirect cost.
- ▶ Follow generally accepted accounting principles.
- ▶ Not be included with expenses related to cost sharing or matching requirements of another federal award, unless specifically allowed for by federal law or regulation.
- ▶ Accurately document project expenses.

Unallowable Project Costs

For an expense to be eligible for reimbursement, all requirements as indicated in this manual must be met and all federal and state regulations must have been followed. FHWA only reimburses for allowable charges. The ADOT project manager may adjust the reimbursement request if it includes unallowable costs or if it includes incomplete or unacceptable items. The ADOT project manager will immediately notify the LPA of any adjustments to the invoices.

Examples of unallowable costs include:

- ▶ Bad debts
- ▶ Contingencies
- ▶ Contributions and donations
- ▶ Entertainment
- ▶ Fines and penalties
- ▶ Interest and other financial costs
- ▶ Material not incorporated into the project
- ▶ Funding gaps from grants and other sources
- ▶ Unauthorized activities or change orders

Consultant and Contractor Payments

LPAs must pay consultants and contractors within agreed time frames—even if they have not yet been reimbursed. In accordance with ARS 28-411 (Prompt Payment to Consultants and Subconsultants), LPAs must pay prime consultants within 21 calendar days after receipt of invoice, or by the terms specified in the contract (whichever is the longer term). The law also requires consultants to pay subconsultants within 7 calendar days after receiving payment from ADOT, unless exceptions exist within the agreed-upon consultant/subconsultant contract.

**CALENDAR
WATCH**

LPAs must pay prime consultants within 21 calendar days after receipt of invoice, or by the terms specified in the contract (whichever is the longer term). The law also requires consultants to pay subconsultants within 7 calendar days after receiving payment from ADOT, unless exceptions exist within the agreed-upon consultant/subconsultant contract.

Reimbursement Procedures

All reimbursement requests must contain proper documentation supporting the payment of eligible expenses (49 CFR 18.20 [a][6]). Title 23 USC requires ADOT to administer all funds apportioned and allocated to the State of Arizona. In addition, the Common Rule contains the uniform administrative requirements that ADOT and the LPA are also required to follow. For projects administered by the LPA, ADOT is responsible for monitoring activities and providing information to ensure compliance with applicable federal requirements.

To ensure that reimbursement payments progress in a timely manner, LPAs should request reimbursement within 9 months from the date that federal funds are authorized. Projects that fail to invoice in this time frame, or do not provide sufficient justification regarding the delay with an expected project start date, may be subject to deobligation after 12 months from the date of initial federal-aid authorization. As costs are incurred, reimbursement requests (i.e., invoices), along with proof of contractor payment, should be sent to the ADOT project manager at least every 90 days, but not more than once per month, during the project. Upon project completion, invoices must be submitted to the ADOT project manager within 90 days. Undocumented costs will not be reimbursed.

**CALENDAR
WATCH**

To ensure that payments progress in a timely manner, LPAs should request reimbursement within 9 months from the date that federal-aid funds are authorized. Invoices must be submitted to the ADOT project manager within 90 days of project completion.

The LPA should notify ADOT in writing within 60 days of project completion to avoid having the project classified as inactive and at risk for deobligation. ADOT's *Reasonable Progress Policy and Procedures* further describes reimbursements (see the Resources list at the end of this chapter for a link to that document).

Invoicing

After the LPA has received the written Notice to Proceed from ADOT, the LPA can submit invoices to ADOT every month, numbering them sequentially for each work phase. Generally, the LPA should expect reimbursement within 3 weeks of acceptance and approval of a properly prepared invoice submittal (see the Reimbursement Request Procedures section of this chapter). For corrected or adjusted invoices, expect reimbursement 3 weeks after the modified invoice is approved. If payment is not received within this time, the LPA should contact the ADOT project manager. ADOT may request, at any time during the project, a written statement of costs to date from the LPA.



The LPA can submit invoices to ADOT once a month (but must be submitted within 90 days) and should expect reimbursement within 3 weeks of acceptance and approval of a properly prepared invoice submittal.

ADOT will not accept invoices before a TRACS (i.e., Advantage) number has been assigned and prior to the federal-aid funding authorization effective date. Work conducted before the FHWA authorization effective date and receipt of the ADOT Notice to Proceed is not eligible for reimbursement.

Reimbursement Request Procedures

Requests for reimbursement of eligible federal-aid project costs are to be submitted to the ADOT project manager, with the exception of contractor payments on ADOT-administered projects which are to be submitted to the ADOT Field Reports Section. LPAs should contact the ADOT project manager for more information regarding submittal of reimbursement requests (see Appendix A for contact information). Reimbursement requests should be prepared once a month using ADOT payment forms. Reimbursement requests must be received between the 10th and 25th of the month. The steps for submitting requests for reimbursement are as follows:

1. The LPA reviews the progress report and payment invoice from the consultant or contractor for accuracy and acceptance. The LPA verifies that all work completed is accurate (e.g., quantities and hours worked), is in agreement with the IGA (and the ADOT/LPA stewardship agreement for Certification Acceptance projects), and is segregated by funding source. The report should provide enough detail to inform the ADOT project manager of work progress, anticipated barriers, and potential solutions to barriers and problems. The LPA's report should also describe the specific items of completed work for which an invoice is being submitted. While the completed work costs may exceed the amount invoiced, the LPA should never invoice for more work than was completed, as indicated in the invoice for that time period. If nonparticipating costs are involved, the LPA must include them on the invoice and deduct them from the total request.

2. The LPA is required to pay the consultant's and contractor's payment invoices within 21 days or by the terms specified in the consultant/contractor contract (whichever is the longer term), regardless of whether the LPA has been reimbursed.
3. Final payments and retention are to be made 30 days after the receipt of a proper invoice or LPA acceptance of the completed work or services, whichever is later.
4. The LPA submits reimbursement requests to the ADOT project manager or Field Reports Section (as applicable), who then forwards the invoices to ADOT Contract Payables. All costs submitted for reimbursement must be supported by original source documents in accordance with 49 CFR 18.20(a)(6). The reimbursement request may vary, but the following information must be included:
 - A formal letter requesting reimbursement of eligible expenses, including a certification statement. The LPA's person in responsible charge will certify that the work on the invoice has been completed in accordance with the terms of agreement, or approved plans and specifications, and will verify that the costs shown are true and correct and are not duplicates of another reimbursed fee. This letter must be signed by the LPA's person in responsible charge.
 - Date of invoice.
 - Invoice number. This is a serially assigned number that begins with #1. This progress billing number allows the LPA to determine that it has received all the invoices for the project.
 - Federal-aid and TRACS numbers.
 - Phase-of-work headings such as preliminary engineering; environmental, ROW, utility, or railroad clearances; and construction.
 - Timeline when claimed project participating costs were incurred and paid.
 - Detailed cost breakdown of expenses with supporting documentation.
 - LPA's share of the payment or any nonparticipating costs.
 - Cumulative costs to date.
 - Proof of payment.
5. All invoices received from the LPA must be approved by the ADOT project manager before payment. ADOT reviews the request for acceptance and all backup documentation. When ADOT receives a proper invoice, the LPA can expect progress payment to be issued according to terms specified in the contract between ADOT and the LPA. Generally, payment is made within 45 days. Final payments are made 30 days after the receipt of a proper invoice or LPA acceptance of the completed work or services, whichever is later.
6. When an invoice is determined improper or if it includes unallowable costs, ADOT must return the invoice to the LPA within 7 days. ADOT is required to identify all defects that prevent payment. If an invoice requires adjustment, the ADOT project manager will return the invoice to the LPA and have them submit a revised invoice for the correct amount.
7. If approved, the ADOT project manager will submit the original invoice to ADOT Contract Payables for payment processing and will maintain one copy for their files. ADOT Contract Payables will process invoices by requesting payment from FHWA for the cost of completed work that meets eligibility requirements. All backup documentation will be stored electronically for each invoice.
8. ADOT Contract Payables will pay all allowable costs and reimburse the LPA through electronic funds transfer. ADOT Contract Payables will then process invoices by requesting reimbursement from FHWA.



CALENDAR WATCH

LPA's can submit requests for reimbursement from ADOT once monthly, but the requests must be received between the 10th and the 25th of the month. LPA's must comply with all payment time restrictions discussed above in the steps for submitting reimbursement requests.

Final Reimbursement

The final reimbursement will include any adjustments required by the audit and ADOT-incurred expenses. The LPA must provide to ADOT a final invoice and a final report of expenditures, showing actual project costs (including claims), within 180 days of project completion.

The LPA and ADOT should use the following questions to assist in reviewing the final invoice:

- Have all project tasks been completed, inspected, and approved before the date of the final bill being submitted?
- Does the final invoice amount agree with the final detail estimate/final report of expenditures?
- Does the invoice request all the funds specified in the federal-aid authorization?
- Has final inspection been performed?
- Are all the proper documents included (final project reports, proper signatures from authorized parties, material certifications, etc.)?



CALENDAR WATCH

The LPA must provide to ADOT a final invoice and a final report of expenditures, showing actual project costs (including claims), within 180 days of project completion.

ADOT and the LPA will ensure that all required work for the project has been completed and that the required documents are maintained to close out the project. Payment from ADOT will be limited to federal funds available as prescribed in the IGA for ADOT-administered and self-administered projects. ADOT will submit all federal-aid participation claims received from the LPA to FHWA in the normal manner and will compile accurate cost accounting records.

Audits and Record Retention

ADOT and FHWA may review or audit LPA projects at any time during the project development process, or following completion of the project. Project documentation must be kept available for review by ADOT and FHWA. According to ARS 35-214, all source documentation (timesheets, lodging receipts, etc.), accounting records,

project records (construction diary, etc.) must be retained for a minimum of 5 years following FHWA closeout of the project in the FMIS.

During the final acceptance and project closeout process, ADOT will perform an audit of compliance to determine that reasonable assurance for conformance with the U.S. Government Auditing Standards has occurred. See the Project Audit section in Chapter 14, Final Acceptance, for more information regarding ADOT’s project audit process.

FHWA may audit LPA projects for compliance with applicable federal requirements. In order to ensure and certify that federal funds are properly managed and effectively used in accordance with federal policies, and that safeguards are in place to minimize fraud, waste, abuse, and mismanagement, FHWA has established the Financial Integrity Review and Evaluation (FIRE) program. Through the FIRE program, FHWA conducts various activities, such as risk assessments, financial management reviews, improper payments reviews, inactive federal-aid project reviews, audit reviews, etc. For more information on the FIRE program, see FHWA Order 4560.1b referenced in the Resources list at the end of this chapter.



As stipulated by 49 CFR 18.42(e), FHWA, ADOT, or any of their authorized representatives have the right of access to review/audit any LPA project documents (invoices, field reports, etc.) at any stage of the project.

Roles and Responsibilities

Table 17-1 outlines the roles and responsibilities regarding financial management/reimbursement for LPA projects.

Table 17-1 Roles and Responsibilities for Financial Management/Reimbursement

Task	LPA	ADOT	FHWA
Federal-aid funding authorization	Request TRACS and federal-aid number	Assign TRACS number and federal-aid number; request federal-aid authorization	Authorize
Obligation of federal funds	Initiate project	Request obligation	Obligate
Rolling fund obligation forward	Notify ADOT of need to roll obligation forward to next fiscal year	Initiates request to roll funds forward to upcoming fiscal year	Obligate
Deobligation of federal funds	Notify ADOT of need to deobligate federal funds	Initiate request to deobligate	Deobligate
Invoicing/reimbursement requests	Invoice in a timely fashion	Establish invoicing time frames and reimburse LPA; request reimbursement from FHWA	Reimburse ADOT
Consultant/contractor payments (progress payments)	Pay consultants/contractors in timely fashion	N/A	N/A

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RESOURCES

ADOT Consultant Construction Administration Manual

<http://www.azdot.gov/docs/business/consultant-construction-administration-manual.pdf?sfvrsn=2>

ADOT Engineering Consultants Section

<http://www.azdot.gov/business/engineering-consultants>

ADOT Engineering Consultants Services Section Consultant Prequalification Documents

<http://www.azdot.gov/business/engineering-consultants/consultant-prequalification>

ADOT Procurement

<http://www.azdot.gov/business/Procurement>

ADOT Statement of Qualifications Forms and Templates

<http://www.azdot.gov/business/engineering-consultants/advertisements/soq-submittal-guidelines>

Arizona DBE Program

<http://www.azdot.gov/business/engineering-consultants/DisadvantagedBusinessEnterprise%28DBE%29Program>

Arizona State Procurement Website

<http://spo.az.gov/>

Arizona State Procurement Office Small/Women-owned/Minority-owned Businesses

<http://spo.az.gov>

Brooks Act: Federal Government Selection of Architects and Engineers (Public Law 92-582)

<http://www.azdot.gov/docs/business/brooks-act.pdf?sfvrsn=0>

FHWA Buy America Section of the Construction Program Guide

<http://www.fhwa.dot.gov/construction/cqit/buyam.cfm>

FHWA and ADOT Stewardship and Oversight Agreement for Arizona

<http://www.fhwa.dot.gov/federalaid/stewardship/agreements/az.cfm>

<http://www.azdot.gov/business/engineering-and-construction/traffic/traffic-safety/stewardship-and-oversight-agreement-for-arizona>

FHWA Contract Administration

<http://www.fhwa.dot.gov/programadmin/contracts/index.cfm>

FHWA Contract Administration Core Curriculum Participant's Manual and Reference Guide (Appendix A-135)

<http://www.fhwa.dot.gov/programadmin/contracts/coretoc.cfm>

FHWA Federal Funding Accountability and Transparency Act Questions and Answers

<http://www.fhwa.dot.gov/transparencyact/qandas.htm>

FHWA Order 4560.1b Financial Integrity Review and Evaluation (FIRE) Program (note: this order is cancelled)

<http://www.fhwa.dot.gov/legsregs/directives/orders/45601b.htm>

FHWA Form 1273, Required Contract Provisions: Federal-Aid Construction Contracts

<http://www.fhwa.dot.gov/programadmin/contracts/1273>

<http://www.fhwa.dot.gov/programadmin/contracts/1273/1273.pdf>

FHWA Procurement Options for Federal-Aid, Construction and Service Contracts

<http://www.fhwa.dot.gov/programadmin/contracts/tabproc.cfm>

How to Do Business with the Arizona Department of Transportation

<http://www.azdot.gov/docs/business/how-to-do-business-with-adot--reference.pdf?sfvrsn=0>

Quick Facts about "Buy America" Requirements for Federal-Aid Highway Construction

<http://www.fhwa.dot.gov/programadmin/contracts/b-amquck.cfm>



CHAPTER 18

Contracting, Consultant Selection, and Procurement

Introduction

This chapter provides information about the requirements and process for procuring services and materials needed to develop and construct federally funded LPA projects. ADOT has three groups that oversee and assist LPAs with the contracting processes, consultant selection, and procurement of goods and materials: C&S, ECS, and the Procurement Group. Once the LPA identifies what type of work needs to be performed for their project, then the appropriate contracting mechanism can be determined. Contracting mechanisms and processes for securing materials and services are described in the Overview of Contractor Selection, Consultant Selection, and Procurement of Materials section below.



LPAs with ADOT-administered projects must coordinate with the ADOT Procurement Group, ECS, and C&S through ADOT LPA Section to spend federal-aid funds on procurement, consultant selection, and contractor selection activities. Self-administering LPAs must coordinate with ADOT for procurement of materials on all projects and for consultant and contractor services on nonexempt projects. Certified LPAs can procure their own materials and consultant and contractor services for all projects.

Overview of Contractor Selection, Consultant Selection, and Procurement of Materials

ADOT is responsible for overseeing contractor selection, consultant selection, and procurement of goods and materials to for federally funded LPA projects to ensure that they are in compliance with federal and state laws and regulations (see the Applicable Regulations section below for more information). This applies to all three types of project administration: ADOT administration, self-administration, and Certification Acceptance. See Chapter 3, Self-Administration, and Chapter 4, Certification Acceptance, for more information on the self-administration and Certification Acceptance application processes.



Contractors, consultants, or materials procured prior to federal authorization will not be eligible for reimbursement. In order to be eligible for federal reimbursement for contractor, consultant, and material costs, LPA projects must:

- Be listed in a TIP and the STIP
- Have an executed IGA, if required
- Have received federal-aid funding authorization from FHWA

An IGA between ADOT and the LPA is required for all ADOT-administered and self-administered projects, and for Certification Acceptance projects for which the LPA opts to use ADOT procurement services.

Contracting Mechanisms

There are five types of contracting mechanisms to obtain services and materials for LPA projects:

- **Construction:** used to hire construction contractors on exempt projects that use standard project delivery methods (design-bid-build). Construction contracts are awarded to the lowest responsive bidder.
- **Engineering services:** used to hire development/design consultants, such as engineers, architects, and landscape architects, on exempt projects. Selections are based on the consultants' qualifications, as required by the Brooks Act.
- **Common Rule:** used to obtain materials (e.g., equipment) or architectural and engineering consultant services (e.g., software development) for nonexempt projects. State procurement procedures are followed, which include appropriate federal requirements. The Common Rule (49 CFR 18) was formally known as the "Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments."
- **Design-build:** used to procure design services and construction services with a single contract. Under design-build contracts, design and construction of the project may be in sequential phases or concurrent phases. Finance, maintenance, operations, pre-construction, and other related services may be included. Design-build contracts are awarded to the lowest adjusted bid. All self-administered and Certification Acceptance design-build projects using federal funds must comply with approved ADOT processes and procedures. For more information, see the ADOT Design-Build Procurement and Administration Guide referenced in the Resources list at the end of this chapter. (*Design-build is no longer considered "experimental" and no longer requires a SEP-14 contract.*)
- **Special Experimental Project No.14 (SEP-14):** used for alternative contracting methods, such as Job Order Contracting. SEP-14 contracts must be approved by FHWA Headquarters in Washington, D.C.; these types of contracts can take 2 to 3 months for approval. SEP-14 contracts are not commonly used by LPAs and require close coordination with ADOT and FHWA Arizona Division early in the process. LPAs should adjust project schedules to account for SEP-14 review and approval time by ADOT and FHWA. LPAs should consult with their ADOT project manager for assistance before considering this method of contract delivery.



Design-build and SEP-14 contracts should only be used in special circumstances after consulting with the ADOT project manager. If an LPA wishes to use a SEP-14 alternative contracting method, the LPA must contact the ADOT project manager who will, in turn, contact the FHWA Arizona Division area engineer early in the process. LPAs should allow sufficient time to obtain FHWA approval for those projects.

Exemptions from the Arizona Procurement Code

LPAs and ADOT must adhere to the provisions of the Arizona Procurement Code (ARS Title 41, Chapter 23) for all projects, except those that are exempt. The Arizona Procurement Code exemption encompasses the full spectrum of engineering and other consultative disciplines required to fully design and construct transportation or highway facilities, as well as programs to control and oversee the study, location, design, and construction administration of the facilities. In addition to engineering, other potentially exempt services may include architecture, landscape architecture, geology, geotechnical investigations, environmental services, and other related services.

ADOT C&S, ECS, or Procurement Group will determine whether a given LPA project is exempt or nonexempt. Figure 18-2, Figure 18-3, and Figure 18-4 (see the Procurement Process: Contractor Selection, Consultant Selection, and Procurement of Materials section of this chapter) illustrate that the responsibilities of C&S, ECS, and the Procurement Group will vary depending on whether:

- ▶ Contracting services, consultant services, or materials are being procured
- ▶ The project is ADOT-administered, self-administered, or administered by a certified LPA
- ▶ The project is exempt or nonexempt from the requirements of the Arizona Procurement Code

Exempt Projects

LPA projects exempt from the Arizona Procurement Code include standard transportation construction projects, specifically those that involve construction or reconstruction of highway or transportation facilities (including services directly related to land titles, appraisals, real property acquisition, relocation, property management, or building facility design and construction for highway development).

Nonexempt Projects

LPA projects that are not standard transportation construction projects, specifically those undertaken to maintain existing highway facilities, to construct/reconstruct nonhighway facilities, or procure materials without construction, are referred to as *nonexempt* and must adhere to the Arizona Procurement Code.

Intergovernmental Agreements

An IGA between ADOT and the LPA is required for all federally funded LPA projects that are ADOT administered or self-administered and for Certification Acceptance projects in which LPAs opt to use ADOT Procurement

Group, ECS, or C&S services. An IGA is not required for Certification Acceptance projects if the project will *not* use ADOT services for the purchase of contractor services, consultant services, or materials.

IGA development can begin as soon as the TRACS and federal-aid numbers have been assigned and must be fully executed before federal-aid funding can be authorized. Any work on the project that was performed before federal funding authorization is not eligible for reimbursement. LPA projects must be in a TIP and the STIP, have an executed IGA, and have received federal-aid funding authorization before the procurement process can be initiated. See the Intergovernmental Agreements section of Chapter 2, ADOT Administration, for more information on IGAs.



CALENDAR WATCH

LPA's should allow up to 6 months for development and execution of the IGA. The IGA process should begin before, or as early as possible in, the federal fiscal year to ensure that funding can be authorized in a timely manner.

Applicable Regulations

The federal-aid procurement regulations (as set forth in 23 CFR Parts 172, 635, and 655 and 49 CFR 18) define the requirements that state and local agencies must adhere to when procuring services and materials for projects using federal-aid highway funds. These procurement regulations identify possible contracting options available for design and construction projects, including construction, architectural and engineering consultant services, and nonarchitectural/nonengineering contracts. The regulations require state and local agencies to award:

- ▶ Construction contracts on the basis of competitive bidding
- ▶ Architectural and engineering consultant services contracts on the basis of qualifications-based selection, followed by competitive negotiations
- ▶ Nonarchitectural/nonengineering contracts using ADOT-approved procurement procedures in accordance with 49 CFR 18

The regulations require use of competitive contract award procedures for any federally funded project. Under regular federal-aid procedures, negotiated procurement without the element of competition, or contract award on the basis of "other than low bid," is not permitted. Contracting under the federal-aid highway program is based on the premise that competitive bidding is the best way to keep costs low while achieving a quality product. Federal law requires competitive bidding unless some other method is more cost effective or a declared emergency exists (23 USC 112).

Procurement activities for LPA projects funded exclusively with state and local funds are only subject to the Arizona Procurement Code. Projects using federal-aid funds are subject to the Arizona Procurement Code and Federal Acquisition Regulation rules regarding procurement activities, regardless of the amount of federal funding.

All federally funded LPA projects must comply with all applicable federal, state, and local laws and regulations. Federal laws and regulations supersede those from the state and county, except where state and county laws and regulations are more stringent. Table 18-1 outlines major federal and state regulations applicable to LPA procurement activities.

Table 18-1 Major Federal and State Regulations Applicable to LPA Procurement

	Construction Contracts	Engineering Service Contracts	Common Rule Contracts	Design-Build Contracts	SEP-14 Contracts
Applicable regulations	23 USC 112(b)(1); 23 CFR 635 48 CFR Chapter 12 Arizona Procurement Code	23 USC 112(b)(2); 23 USC 117 23 CFR 172; 48 CFR Chapter 12 49 CFR 18; ARS 41-2652 Arizona Procurement Code	23 USC 112 49 CFR 18; Arizona Procurement Code	23 CFR 636 Arizona Procurement Code	23 USC 307 Arizona Procurement Code
Basis for contract award	Lowest responsible/responsive bidder	Qualifications-based selection	State procedures for procurement	Lowest adjusted bid	Experimental; as identified in the SEP-14 work plan

Table Source: FHWA's Procurement Options for Federal-Aid, Construction and Service Contracts (see the Resources list at the end of this chapter).

Defining ADOT Procurement Areas

ADOT Contracts and Specifications Section

ADOT C&S reviews and approves construction contracts and specifications involving ADOT Standard Specifications, LPA specifications, special project provisions, and design plans for LPA projects exempt from the Arizona Procurement Code. LPAs must coordinate through the ADOT project manager and design consultant, instead of interacting directly with C&S. C&S works closely with the ADOT design manager, ADOT project manager, and project design consultants to develop specifications during the development/design phase of LPA projects. C&S may be involved during the construction phase to respond to questions concerning specifications or contract provisions that may arise during bidding and construction activities.

ADOT Engineering Consultants Services Section

ADOT ECS oversees procedures for architectural and engineering consultant contracts, which are either solicited and administered by ADOT at the request of the LPA, or are solicited and administered by the LPA in accordance with ADOT approved procedures.

Consultants may be used for project assessments, location studies, design and construction administration of selected construction projects, as well as the preparation of various research and inspection reports. For federally funded self-administered and Certification Acceptance projects, the LPA may use their own procurement procedures for consultant contracts, provided they are approved by ADOT and are in compliance with the FHWA requirements as defined in:

- ▶ Federal-Aid Policy Guide (which includes 23 CFR and 49 CFR 18)
- ▶ 23 USC 112(b)(2) (contracting for engineering and design services)
- ▶ 23 USC 117 (SAFETEA-LU Technical Corrections Act of 2008)
- ▶ 23 CFR 172 (Administration of Engineering and Design Related Service Contracts) (note: ADOT provides guidance to ensure compliance per 23 CFR 172.7[d])
- ▶ 48 CFR Chapter 12 (Federal Acquisition Regulations)
- ▶ ARS Title 41, Chapter 23 (Arizona Procurement Code)

For all self-administered and Certification Acceptance projects, approval by FHWA must be obtained before procuring a consultant to serve in a management role on behalf of the local agency (23 CFR 172.9[d]). ADOT is responsible for submitting the authorization form to FHWA. LPAs should request a copy of the FHWA approved authorization from the ADOT project manager for their files.

Consultants serving in management roles do not relieve the LPA of its responsibilities in the oversight and administration of the federal-aid funds. Also, conflict of interest considerations may limit the ability of consultants serving in a management role, such as a city/county engineer, from participating in other roles, contracts, or project phases (23 CFR 1.33). LPAs should contact the ADOT project manager for further guidance.



For all LPA administered projects, approval by FHWA must be obtained before procuring a consultant to serve in a management role on behalf of the LPA (23 CFR 172.9[d]).

ADOT Procurement Group

The ADOT Procurement Group awards, administers, and manages procurement of contractor services, consultant services, and materials based on state procurement regulations for ADOT-administered and self-administered projects. However, the Procurement Group does not administer the procurement of consultant or contractor services on projects exempted from the Arizona Procurement Code, such as new highway construction, reconstruction, or building of highway or transportation facilities.

The Procurement Group may have contracts in place for the services and materials required for LPA projects and will use these existing contracts whenever possible. The use of preexisting contracts can save ADOT and LPAs time by avoiding the need to advertise, negotiate, and award contracts with new providers. The Procurement Group maintains a list of current procurement contracts with vendors, consultants, suppliers, and service providers; the searchable list of contracts is available on the Procurement Group website (see the Resources list at the end of this chapter for a link to that website). LPAs should contact the Procurement Group and the ADOT project manager for information about services and materials that are available under contract. If an existing contract is not available, the ADOT project manager will coordinate with the Procurement Group to advertise, negotiate, and award a contract. The LPA will then be able to purchase the services or materials at the price negotiated by the Procurement Group (Figure 18-1).

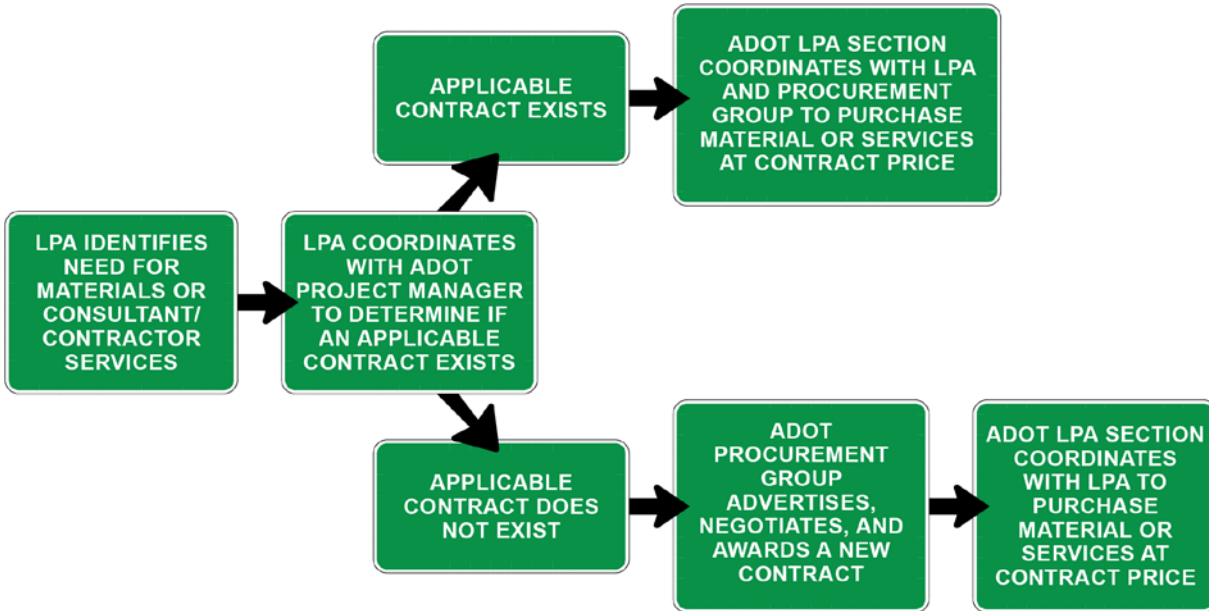


Figure 18-1 ADOT Procurement Group Process for LPA Project Contracts

Avoiding Conflict of Interest

It is essential that the integrity and transparency of the consultant and contractor selection processes and the materials process be maintained to:

- Ensure that the State is selecting cost-effective qualified contractors; qualified consultants; and high-quality materials
- Avoid public perception of favoritism or partiality in contract awards
- Ensure that each contractor, consultant, or vendor is given fair and equal consideration

Selections must be in compliance with 23 CFR 1.33, Conflicts of Interest, and must not be made by any evaluation process in which participants have an actual, potential, or perceived conflict of interest, either of an outside business or personal nature.

Procurement Process for Contractors, Consultants, and Materials

Administration of Contractor and Consultant Selection

LPAs must coordinate with ADOT ECS, C&S, and Procurement Group (via the ADOT project manager) as described below, to obtain consultant and/or contractor services. Otherwise, those services will not be eligible for federal reimbursement. See Figure 18-2, Figure 18-3, and Figure 18-4 later in this chapter for a summary of ADOT contractor selection, consultant selection, and material procurement responsibilities, respectively, for federally funded LPA projects.

ADOT-Administered Projects

The following ADOT sections/groups manage procurements to secure needed contractor and consultant services for ADOT-administered projects:

- C&S administers contractor selection for exempt projects
- ECS administers consultant selection for exempt projects
- Procurement Group administers contractor and consultant services for nonexempt projects

ADOT C&S administers and manages project advertisement, bid, and award for the procurement of contractor services on exempt ADOT-administered projects. Contractors for federal-aid highway construction projects must be awarded on the basis of the lowest responsive responsible bidder (23 USC 112). An exception can be made if a project is to be awarded by some other method that appears to be more cost effective. LPAs should contact the ADOT project manager for further guidance; the ADOT project manager will then contact the FHWA Arizona Division area engineer if an exception is needed.



The benefits of using ADOT's resources for procurement of contractors, consultants, and materials are as follows:

- Reduces time to secure needed consultant/contractor services or materials
- Ensures compliance with all applicable state and federal regulations
- Ensures materials will meet quality standards
- Provides access to the ADOT ECS on-call list of architectural and engineering consultants

ADOT ECS administers and manages project advertisement, bid, and award for architectural and engineering consultant contracts for ADOT-administered projects that are exempt from the Arizona Procurement Code. ADOT-administered projects can use architectural and engineering consultants included in the on-call list maintained by ECS or could advertise for a consultant. Consultants included in the on-call list have been selected by ADOT using a QBS process, as required by the Brooks Act. For ADOT-administered projects, LPAs should contact their ADOT project manager to initiate the consultant selection process. The ADOT project manager will then coordinate with ECS to select architectural and engineering consultants from the on-call list for LPA projects.

Self-Administered Projects

LPAs that have been approved by ADOT (on a project-by-project basis) to self-administer contractor or consultant selection, may do so for exempt projects. However, self-administering LPAs cannot perform procurement for nonexempt projects. The ADOT Procurement Group administers contractor and consultant selection for nonexempt self-administered projects.

Before the LPA is allowed to self-administer contractor and consultant selection, ADOT must review and approve the LPA's written procurement policies and procedures, in accordance with 23 CFR 172.9(a). ADOT must

approve the written procedures and all revisions prior to solicitation. LPAs must coordinate with ADOT C&S and ECS via the ADOT project manager. The LPA's procedures must be submitted for approval before advertisement, or they will not be accepted. ADOT sections/groups are involved with contractor and consultant selection for self-administered projects as follows:

- ▶ C&S approves LPAs for self-administering contractor selection for exempt projects, or administers contractor selection if requested by the LPA
- ▶ ECS approves LPAs for self-administering consultant selection for exempt projects, or selects a consultant from their on-call list if requested by the LPA
- ▶ Procurement Group administers contractor and consultant services for nonexempt projects

The LPA must obtain approval from ADOT for each project phase (e.g., development/design or construction) that the LPA wishes to self-administer (see the Areas of Authority section in Chapter 3, Self-Administration, for more information on project activities that are eligible for self-administration). The LPA may apply for approval to administer contractor selection and/or consultant selection.



CALENDAR WATCH

All requests to self-administer must be received before advertising and awarding the contract to a contractor or consultant. LPAs should allow approximately 6 to 8 weeks for ADOT C&S or ECS to review and approve (or disapprove) the LPA's procurement process.

Self-administering LPAs may be approved on a project-by-project basis to:

- ▶ Select an architectural and engineering consultant during the development/design phase for exempt projects only after ADOT ECS approval. The LPA must follow the consultant selection process approved by ECS during the self-administration approval process. The LPA consultant selection process must comply with all applicable state and federal regulations (see Table 18-1). A copy of the signed consultant contract must be submitted to the ADOT project manager and to ADOT ECS.
- ▶ Select a contractor for the construction phase of exempt projects only after ADOT C&S approval. Contractors for federal-aid highway construction projects must be awarded on the basis of the lowest responsive responsible bidder (23 USC 112), unless ADOT or the LPA is able to demonstrate to FHWA that some other method is more cost effective or that an emergency exists.



CAUTION

LPAs that are self-administering consultant selection must submit a copy of the signed consultant contract to the ADOT project manager and to ADOT ECS.

LPAs may request that ADOT ECS select the architectural and engineering consultant from their on-call list. The LPA may also request that ADOT C&S administer contractor selection, but concurrence from ADOT LPA Section is required. LPAs should contact the ADOT project manager for further guidance

To apply for consultant selection, LPAs must complete the ECS Local Public Agency (LPA) Application Review Checklist and submit it to the ADOT project manager with the self-administration application package. The LPAs must submit documentation of their procurement processes with the checklist. The ADOT project manager will forward the checklist to ECS for separate approval for consultant selection activities. The most current version of the checklist must be used and is available on ECS's website (see the Resources list at the end of this chapter). See the Self-Administration Application Process section in Chapter 3, Self-Administration, for additional information.

Certification Acceptance Projects

Certified LPAs are responsible for procuring construction contractor services, architectural and engineering consultant services, and materials for all exempt and nonexempt projects, in accordance with the ADOT/LPA stewardship agreement. Certified LPAs must submit their written contracting; consultant selection and material procurement procedures for approval during the Certification Acceptance Program application process. The approved procedures are then included in the ADOT/LPA stewardship agreement.

Every four years, the certified LPA's contracting; consultant selection and material procurement process is reviewed and reapproved by ADOT to ensure that the LPA remains in compliance with state and federal laws and regulations. If the certified LPA makes any changes to the approved process or agreement, they must notify and obtain approval from ADOT prior to implementation.

The certified LPA's contracting, consultant selection and material procurement process must comply with all applicable state and federal laws and regulations to be approved by ADOT (see Table 18-1). The LPA's written procedures for their contractor and consultant procurement processes must address the same requirements as ADOT's written procedures (23 CFR 172.9[a]). Documentation should include, but is not limited to, details of the anticipated processes for:

- ▶ Preparing a scope of work, evaluation factors, and cost estimate for selecting a consultant
- ▶ Prequalification of consultants
- ▶ Advertising of projects
- ▶ Request for qualifications/proposals development
- ▶ Evaluation of consultant qualifications and proposals
- ▶ DBE goals
- ▶ Negotiation of the reimbursement to be paid to the selected consultant
- ▶ Selection, including a contract boilerplate
- ▶ Monitoring the consultant's work and preparing a consultant's performance evaluation when completed
- ▶ Determining the extent to which the consultant may be reasonably liable for costs resulting from errors or deficiencies in design furnished under its contract



Certified LPAs must have their contractor and consultant selection processes approved during the Certification Acceptance Program application process. All approvals must be received before advertising and awarding the contract.

Contractor Selection Process

An overview of the construction contracts procurement process for ADOT-administered, self-administered, and Certification Acceptance projects is shown in Figure 18-2.

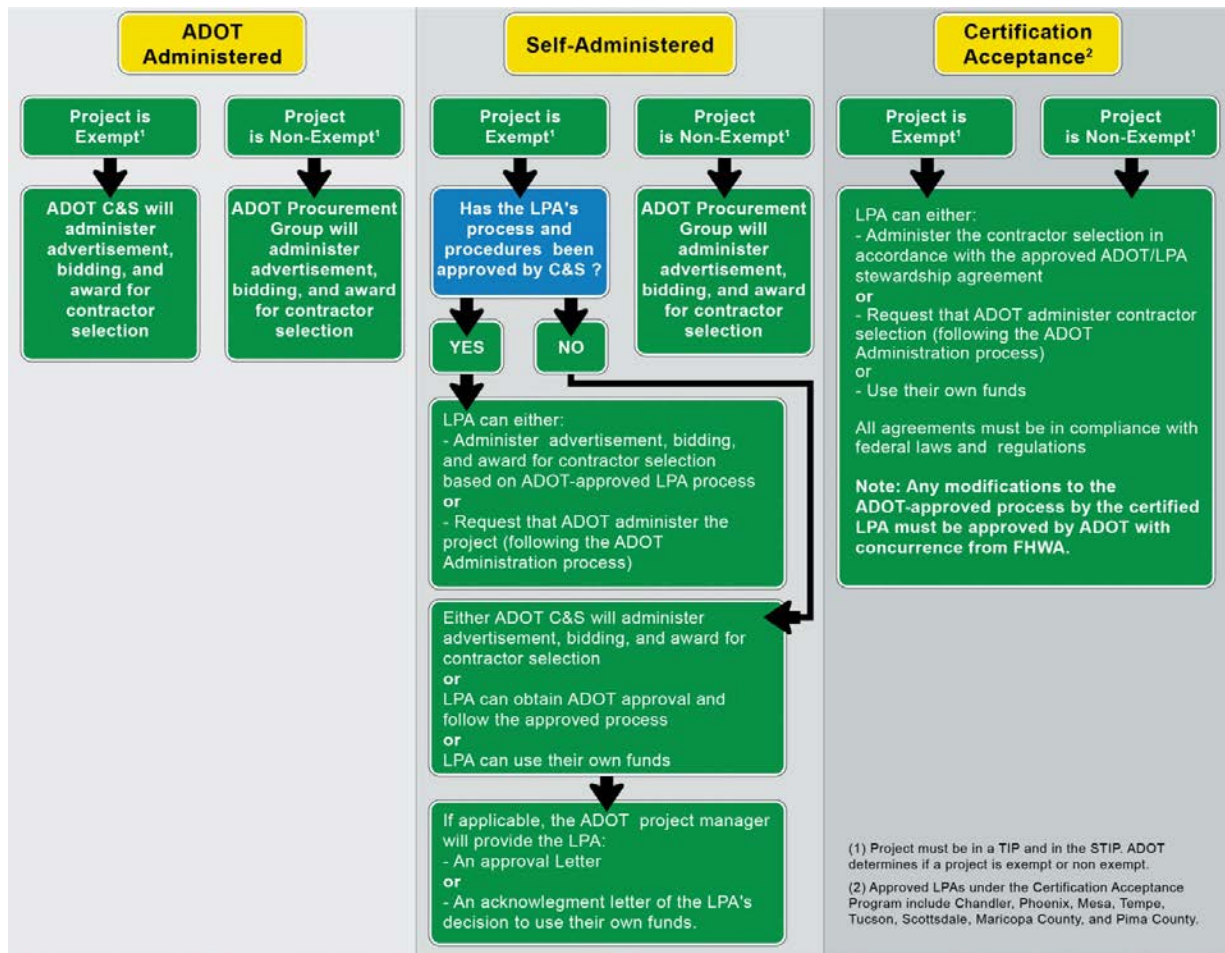


Figure 18-2 Construction Contract Process



Certified LPAs and LPAs that are approved to self-administer contractor selection for federally funded projects can select a contractor by:

- Using their own process as approved by ADOT C&S
- Opt to request that ADOT C&S or Procurement Group administer contractor selection with concurrence from ADOT LPA Section
- Use local funds only, and then use their own process without requiring ADOT C&S approval

Contractor Prequalification

ADOT-Administered and Self-Administered Projects

Contractors must be prequalified with ADOT C&S annually. All persons/firms desiring to offer bids for construction work advertised by ADOT must first apply for prequalification. Prequalification applications will be considered valid for 15 months from the date of the financial statement. See the Resources list at the end of this chapter for a link to the C&S website, which includes a link to the contractor prequalification package.

Certification Acceptance Projects

Certified LPAs may use their own approved prequalification process of prospective bidders, as approved by ADOT. LPAs that perform their own prequalification must have written procedures to prequalify contractors. Certified LPAs also have the option of using ADOT's list of prequalified contractors.



If the certified LPA does not have ADOT-approved written procedures in place, they must use ADOT's approved contractor's prequalification list.

Advertisement, Bid, and Award

For all federal-aid funded projects, contractors for federal-aid highway construction projects must be awarded on the basis of the lowest responsive responsible bidder (23 USC 112), unless ADOT or the LPA is able to demonstrate to FHWA that some other method is more cost effective or that a declared emergency exists. Whether contractors are selected by the Procurement Group or C&S, the selection process follows the same steps:

- **Develop PS&Es.** The first step in the procurement process is to develop the PS&Es in order to determine the materials or services required for the project. PS&Es are developed during the development/design process. See the Stage V Design (100% Plans, Specifications, and Estimates) section in Chapter 8, Development/Design for more information.

- ▶ **Advertise.** Federal-aid projects must be advertised by either an LPA authorized to do so or by ADOT. Before project advertisement, the LPA or ADOT must certify that the final PS&E package complies with all applicable federal and state regulations and procedures, and must obtain approval to advertise from the ADOT project manager.
 - Advertising costs are reimbursable. A minimum advertisement period of 3 weeks is required for all projects. FHWA must approve requests for shorter advertisement periods. The advertising period begins with publication of a Notice to Contractors in a newspaper receiving wide local circulation. The notice must identify the DBE project availability advisory. The administering agency is responsible for approving and issuing all addenda to the PS&Es during the advertising period. Self-administering LPAs must submit addendums to the ADOT project manager for review to ensure compliance with federal and state regulations.
- ▶ **Open the bids.** FHWA policy requires all bids to be opened publicly and read aloud either item-by-item or by total amount. For bidders, the reading of the bids confirms whose bids are successful. For the LPA and the general public, this forum establishes the cost to build the project.
- ▶ **Evaluate bids and make selection.** Bids should be evaluated based on standards outlined in advertisement. The bid analysis is the process performed to justify the award or to reject the bids and should ensure that adequate competition occurred and the lowest possible cost was received.
 - In order to evaluate the bids, an engineer's estimate is required. The administering agency (i.e., ADOT or the LPA) must check the apparent lowest responsive responsible bidder's unit bid prices for reasonable conformance with the engineer's estimated prices. Careful evaluation should occur if bids have extreme variations from the engineer's estimate or where obvious unbalancing of unit prices has occurred. LPAs should consult with the ADOT project manager for more information.
 - Where obvious unbalanced bid items exist, approval from FHWA is required. For self-administered and Certification Acceptance projects, the LPA's decision to award or reject a bid must be supported by written justification and submitted to the ADOT project manager. The ADOT project manager will notify and obtain approval from the FHWA in accordance with the ADOT/FHWA Stewardship Agreement. The purpose is to help ensure that the executed contract will result in the lowest final cost. A bid that is mathematically but not materially unbalanced may still be awarded. When a bid is mathematically and materially unbalanced, steps are needed to protect the federal interest. These can include not awarding the contract or awarding the contract with limits on federal participation. In these cases, LPAs should contact the ADOT project manager for additional guidance.
- ▶ **Execute the contract.** For all projects, FHWA must receive a copy of the executed contract. For ADOT-administered projects, ADOT will forward a copy to FHWA. For self-administered and Certification Acceptance projects, the LPA must provide two copies of the executed contract to the ADOT project manager, who will then send one of the copies to FHWA.

**CAUTION**

No project will be advertised for bids, no project work will be undertaken, and no materials will be purchased on any federal-aid project before FHWA has granted federal-aid authorization. Any project activities conducted before the federal authorization effective date will not be eligible for reimbursement of federal funds.



Mandatory federal contract provisions for construction contracts are described in FHWA Form 1273, which is available on the FHWA website (see the Resources list at the end of this chapter for a link to that form). For other important federal requirements, see the Selected Federal Regulatory Requirements section in Chapter 13, Construction.

Consultant Selection Process

An overview of the consultant procurement process for ADOT-administered, self-administered, and Certification Acceptance projects is shown in Figure 18-3.

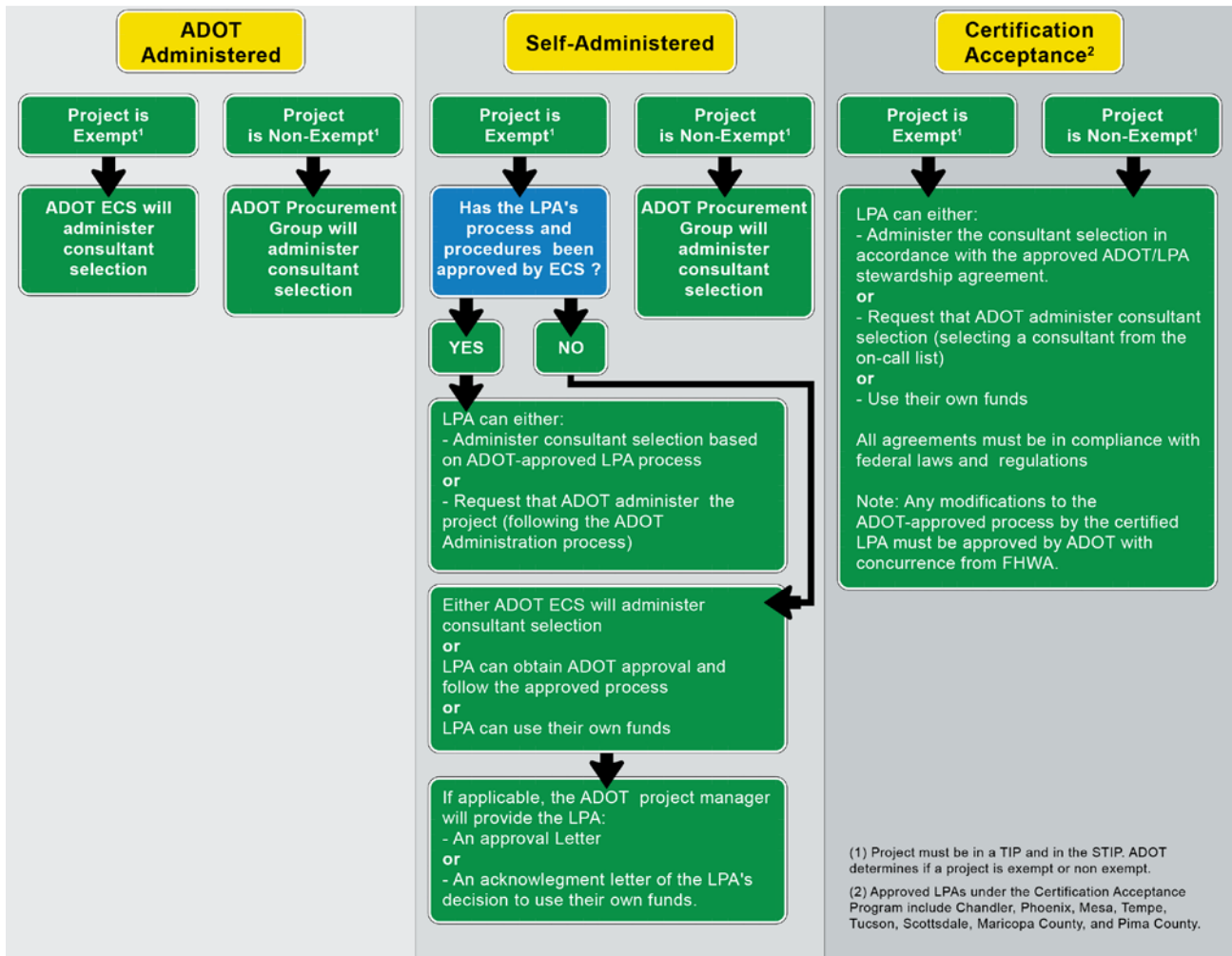


Figure 18-3 Consultant Selection Process



Certified LPAs and LPAs that are approved to self-administer consultant selection for federally funded projects can select an architectural or engineering consultant by:

- Using their own process as approved by ADOT ECS
- Opt to request that ADOT select a consultant from the on-call list
- Use local funds only, and then use their own process without requiring ADOT ECS approval

Qualifications-Based Selection

For federally funded projects, architectural and engineering consultant contracts must be awarded using a QBS procurement process in compliance with the Brooks Act (Public Law 92-582; 40 USC 1101 et seq.). QBS is a competitive process whereby consulting firms are evaluated and selected based on their qualifications that are submitted in response to a request for qualifications. Under the QBS process, the cost of the work (price) is not considered when making the initial selection of the best or most qualified provider of the required professional engineering services. Negotiations with the selected consultant to determine a fair and reasonable consultant fee occur after the consultant is determined to be qualified. The cost for services, along with the detailed scope of work, schedule, and budget, are negotiated after the most qualified firm has been selected but before the contract is signed by both parties.

Consultant Prequalification

Consultants interested in providing services to ADOT are required to be prequalified with ADOT ECS using the QBS process, as required by the Brooks Act. Prequalification is done on a biannual basis during a calendar year, which expires on December 31. Prequalification applications are available on the ECS website and may be filed at any time throughout the year. Firms must be prequalified by ECS in order to submit a statement of qualifications in response to a request for qualifications. See the Resources list at the end of this chapter for a link to the ECS website, which includes information about the guidelines and policies for the consultant selection process, and a link to the consultant prequalification package. Subconsultants are not required to be prequalified by ECS but are encouraged to do so.

Using ADOT's On-Call List of Architectural and Engineering Consultants

ADOT ECS maintains an on-call list of consultants who have been prequalified and selected to provide architectural and engineering consulting services for LPA projects. The on-call list of consultants is available on the ECS website (see the Resources list at the end of this chapter). Key information to consider:

- **ADOT-Administered:** If a federally funded LPA project is ADOT administered, ADOT will select a consultant from the on-call list and administer the contract for the LPA.

- **Self-Administered:** LPAs that are authorized to self-administer consultant selection for federally funded projects may choose to:

 - Follow their consultant selection process as approved by ADOT ECS during the self-administration application process
 - Opt to request that ADOT ECS select a consultant from their on-call list
 - Use only local funds for consultant costs
- **Certification Acceptance:** Certified LPAs with federally funded projects may choose to:

 - Follow their consultant selection process as approved by ADOT ECS and included in the ADOT/LPA stewardship agreement
 - Opt to request that ADOT ECS select a consultant from their on-call list
 - Use only local funds for consultant costs



For LPAs that would like to select their own consultants, the self-administration application package or the Certification Acceptance application package (as applicable) must include a completed ECS *Local Public Agency (LPA) Application Review Checklist*, which will be forward by ADOT LPA Section to ECS for separate approval. LPAs must use the most recent version of the checklist, available on the ECS website (see the Resources list at the end of this chapter for a link to the checklist).

To use a consultant from the on-call list, the LPA must follow these steps:

1. The LPA must coordinate with ECS via the ADOT project manager to be assigned a consultant from the currently approved on-call list, following approved ECS and FHWA rules for on-call assignment.
2. The LPA will develop the project scope of work to submit to the assigned consultant. The scope of work for the project will explain the extent of work the consultant will conduct. ECS can provide criteria and an example scope of work to the LPA, if requested.
3. The assigned consultant will refine the project scope of work, the cost estimate, or both for the project through coordination with the LPA and ECS.
4. The LPA will provide approval of the final cost estimate to ECS and the ADOT project manager in writing.
5. ECS will either amend the existing IGA (if one is available) or initiate development of an IGA to include language in the agreement regarding the use of the on-call consultant, estimated costs, etc. ECS will likely need to initiate an IGA with certified LPAs since the use of the on-call list is not included in the ADOT/LPA stewardship agreement under the Certification Acceptance Program.
6. Once the IGA has been executed, the LPA should contact the ADOT project manager to request federal-aid authorization.
7. Upon authorization from FHWA for consultant activities, ECS will provide a task-order number (i.e., Notice to Proceed) to the consultant to start work. ECS will also provide a Notice to Proceed to the LPA stating that the commitments implied with the issuance of the Notice to Proceed.

When assigning a consultant from the on-call list, ECS will contact the consultant, coordinate to develop a specific scope of work, and provide a task-order number. ECS must endeavor to distribute work as equitably as possible among all consultant firms selected in each specific area. The first round of on-call task orders will be assigned based on the ranking of the consultant firms, with the first contract being awarded to the highest ranked firm, provided that the firm has the required expertise to complete the assigned tasks. Thereafter, tasks will be assigned with the goal of equalizing the cumulative dollar value awarded to contracted consultant firms. However, on occasions, it may not be feasible to strictly distribute work in this manner. Exceptions to this process may be made if a new task order is closely related to or dependent on a previous task order and it is deemed in the best interest of the State to assign the new task to the consultant assigned the original task.



No task authorization can exceed \$500,000 and no contract can exceed \$2,000,000 per year without a signed waiver granting approval from FHWA and the ECS director.

Locally Funded Architecture and Engineering Consultant Services

Certified LPAs and LPAs authorized to self-administer architecture and engineering consultant selection can opt to use only local funds for design services. If only local funds are used for design services, without federal-aid reimbursement, then the LPA does not have to comply with federal regulations for consultant selection (e.g., the QBS process). However, if the LPA wants to use the same consultant for postdesign services (e.g., construction inspection) during the construction phase, then the LPA does have to comply with federal consultant selection requirements and have their process approved by ADOT ECS. Otherwise, the postdesign work by that consultant will not be eligible for federal reimbursement. The LPA will be responsible for those costs and the funds will not be eligible for federal match.

Procurement Process for Materials and Equipment

An overview of the process for procuring materials and equipment for ADOT-administered, self-administered, and Certification Acceptance projects is shown in Figure 18-4.

ADOT-Administered and Self-Administered Projects

The ADOT Procurement Group secures materials for all ADOT-administered and self-administered projects, in compliance with the Arizona Procurement Code.

Certification Acceptance Projects

Certified LPAs may procure their own materials and equipment, but must have their procurement process approved by ADOT during the Certification Acceptance Program application process and included in the ADOT/LPA stewardship agreement. Certified LPAs may also request the use of services from the ADOT Procurement Group; LPAs should contact the ADOT project manager for further guidance.

The LPA's written procedures for their material and equipment procurement processes must address the same requirements as ADOT's written procedures (23 CFR 172.9[a]) in order to be approved by ADOT. The Procurement Code Checklist includes a list of primary points that ADOT uses when assessing the LPA's written procurement procedures (see Attachment 18-1 for a copy of the checklist).



CAUTION

The procurement processes for certified LPAs must be approved by ADOT during the Certification Acceptance application process and must comply with all applicable state and federal procurement regulations. If the certified LPA makes any changes to the approved process or ADOT/LPA stewardship agreement, they must notify and obtain approval from ADOT prior to implementation.

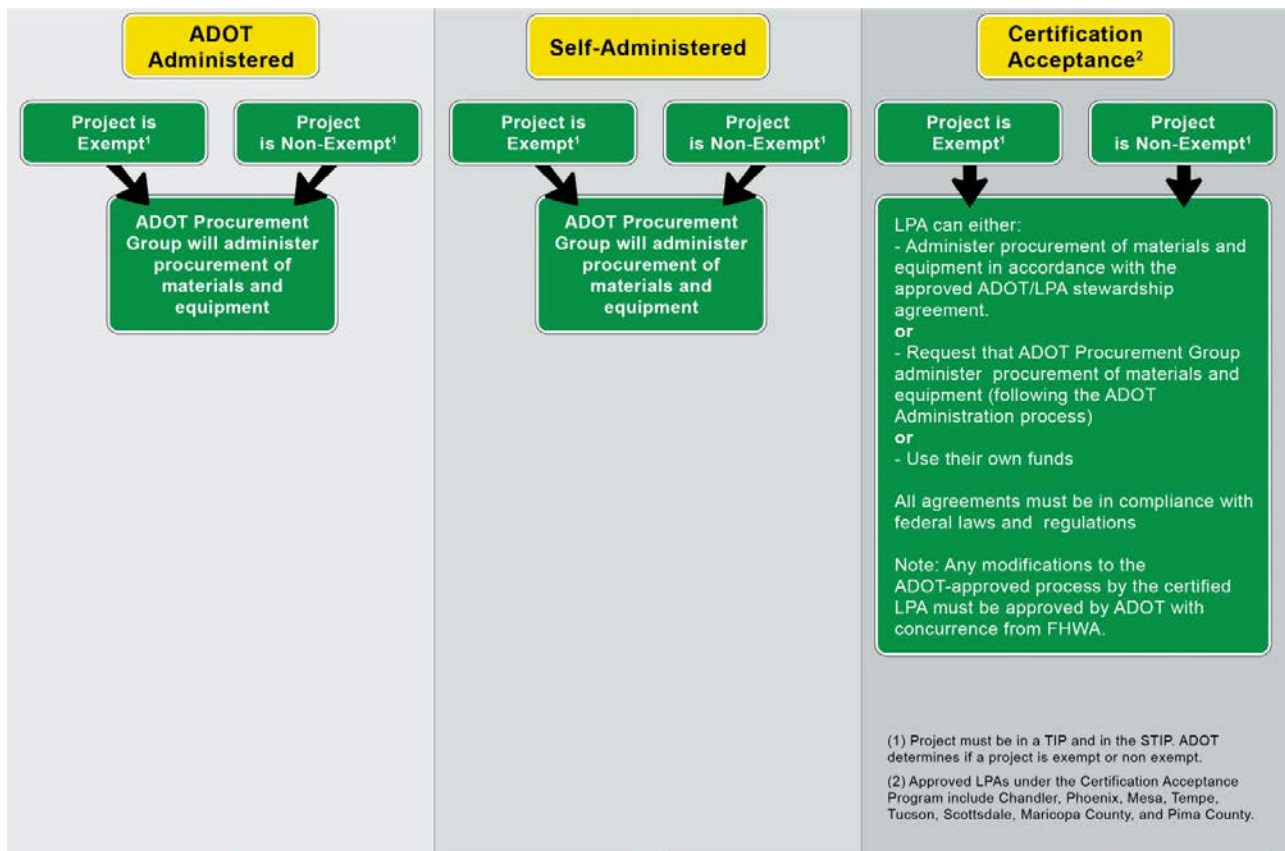


Figure 18-4 Procurement Process for Materials and Equipment

Solicitation Process

The ADOT Procurement Group uses an informal solicitation process for purchases under \$50,000, as specified in ARS 41-2535. For purchases less than \$5,000, the Procurement Group's existing procedures for small-dollar purchases are used to provide for adequate competition and to establish an audit trail. For purchases from \$5,000 to \$49,999, a requisition is submitted to the Procurement Group. The Procurement Group then determines the most appropriate method to obtain the goods or services and to comply with the Small Business Rule. The Procurement Group awards the contract.

A formal solicitation process is used when procurements are expected to exceed \$50,000. The Procurement Group conducts the solicitations. The following are common solicitation methods:

- ▶ **Invitation for bids.** This is the solicitation method used for the sealed bid process and is used when the needed goods and services are clearly specified. Notice of the invitation for bids is sent to all registered vendors for the appropriate commodity. The Procurement Group awards to the lowest responsive and responsible bidder and awards the contract.
- ▶ **Request for proposals.** This solicitation method is used when the needed goods and services are not specifically defined, and they require evaluation of different proposals to determine which one is most advantageous to the State (or LPA), price notwithstanding. Notices are sent to all registered suppliers for the appropriate commodity. Evaluation criteria are identified in the request for proposals. A selection committee evaluates the submissions and makes a recommendation, which is considered by the Procurement Group when making the contract award.

The ADOT project manager will coordinate with the Procurement Group as needed for small-dollar purchases and contract purchases (those for which ADOT already has a contract). If necessary, the ADOT project manager will also initiate the requisition process for purchases over \$5,000.

Civil Rights Compliance

Arizona's DBE program is designed to foster equal opportunity in transportation contracting, to promote participation by socially and economically disadvantaged small businesses (including minority- and women-owned enterprises), and to help address the effects of past discrimination. In accordance with federal law, a percentage of the amount of federal-aid highway project funding must be expended by certified DBEs. The percentage will be determined on a project-specific basis and for on-call contracts. Each LPA and all of its consultants, subconsultants, contractors, subcontractors, and vendors must take all reasonable steps to ensure that DBEs have equitable opportunity to compete for contracts (see Chapter 16, Civil Rights, for more details on the DBE program).

Roles and Responsibilities

Table 18-2 summarizes roles and responsibilities for contracting, consultant selection, and material procurement activities for LPA projects.

Table 18-2 Roles and Responsibilities for Contracting, Consultant Selection, and Material Procurement for All Projects

Task	LPA	ADOT	FHWA
IGA	ADOT-administering and self-administering LPAs participate in development and approve IGA; not applicable to certified LPAs	Initiate, develop and approve IGA	N/A
Contracting mechanism	Determine which contracting mechanism is needed to obtain services and materials	Review and confirm	N/A
Contractor selection	See Figure 18-2	Administer project advertisement, bid, and award and provide guidance/assistance, as necessary; forward the executed contract to FHWA for full-oversight projects if administering contractor selection activities	Receive the executed contract for full-oversight projects
Consultant selection	See Figure 18-3.	Administer consultant selection and provide guidance or assistance, as necessary	N/A
Material-vendor selection	See Figure 18-4.	Administer vendor selection and provide guidance or assistance, as necessary	N/A
Civil rights compliance	Comply	Review and audit for compliance	Audit for compliance

RESOURCES

ADOT Consultant Construction Administration Manual

<http://www.azdot.gov/docs/business/consultant-construction-administration-manual.pdf?sfvrsn=2>

ADOT Contracts and Specifications Section

<http://www.azdot.gov/business/ContractsandSpecifications/index.asp>

ADOT Design-Build Procurement and Administration Guide

<http://www.azdot.gov/docs/default-source/construction-group/designbuildguide.pdf?sfvrsn=0>

ADOT Engineering Consultants Section

<http://www.azdot.gov/business/engineering-consultants>

ADOT Engineering Consultants Services Section Consultant Prequalification Documents

<http://www.azdot.gov/business/engineering-consultants/consultant-prequalification>

ADOT Engineering Consultants Services Section Guidelines/Policy links

<http://www.azdot.gov/business/engineering-consultants/PoliciesandLinks>

ADOT Engineering Consultants Section Local Public Agency (LPA) Application Review Checklist

http://www.azdot.gov/docs/default-source/local-public-agency/091311_application_review_checklist.pdf?sfvrsn=2

ADOT Procurement

<http://www.azdot.gov/business/Procurement>

ADOT Statement of Qualifications Submittal Guidelines

<http://www.azdot.gov/business/engineering-consultants/advertisements/soq-submittal-guidelines>

Arizona Disadvantaged Business Enterprise Program

<http://www.azdot.gov/business/business-engagement-and-compliance/disadvantaged-business-enterprise-program>

Arizona State Procurement Website

<http://spo.az.gov/>

Arizona State Procurement Office Small/Women-owned/Minority-owned Businesses

<http://spo.az.gov/>

Brooks Act: Federal Government Selection of Architects and Engineers (Public Law 92-582)

<http://www.azdot.gov/docs/business/brooks-act.pdf?sfvrsn=0>

FHWA and ADOT Stewardship and Oversight Agreement for Arizona

<http://www.fhwa.dot.gov/federalaid/stewardship/agreements/az.cfm>

<http://www.azdot.gov/business/engineering-and-construction/traffic/traffic-safety/stewardship-and-oversight-agreement-for-arizona>

FHWA Buy America Section of the Construction Program Guide

<http://www.fhwa.dot.gov/construction/cqit/buyam.cfm>

FHWA Consultant Services Website

<http://www.fhwa.dot.gov/programadmin/consultant.cfm>

FHWA Contract Administration

<http://www.fhwa.dot.gov/programadmin/contracts/index.cfm>

FHWA Contract Administration Core Curriculum Participant's Manual and Reference Guide
(Appendix A-135)

<http://www.fhwa.dot.gov/programadmin/contracts/coretoc.cfm>

FHWA Form 1273, Required Contract Provisions: Federal-Aid Construction Contracts

<http://www.fhwa.dot.gov/programadmin/contracts/1273>

<http://www.fhwa.dot.gov/programadmin/contracts/1273/1273.pdf>

FHWA Procurement, Management, and Administration of Engineering and Design Related Services - Questions and Answers

<http://www.fhwa.dot.gov/programadmin/172qa.cfm>

FHWA Procurement Options for Federal-Aid, Construction and Service Contracts

<http://www.fhwa.dot.gov/programadmin/contracts/tabproc.cfm>

FHWA Questions and Answers Regarding Title 23 CFR 635.411

<http://www.fhwa.dot.gov/programadmin/contracts/011106qa.cfm>

How to Do Business with the Arizona Department of Transportation

<http://www.azdot.gov/docs/business/how-to-do-business-with-adot---reference.pdf?sfvrsn=0>

Quick Facts about "Buy America" Requirements for Federal-Aid Highway Construction

<http://www.fhwa.dot.gov/programadmin/contracts/b-amquck.cfm>

U.S. Department of Transportation Buy America Website

<http://www.dot.gov/buyamerica/>

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ATTACHMENT 18-1: PROCUREMENT CODE CHECKLIST

Task	Comments
Written competitive bidding thresholds	
Written determinations authority	
Use of non-restrictive specifications (either developed per project, or "canned" specifications stated as a reference), unless a written determination is done and approved (i.e., public interest finding)	
Checks and balances regarding authority	
Procurement Authority is provided by city, county, or state statute	
Authority is managed by a named procurement officer, (not an engineer or director)	
Bid lists are maintained by a third party	
Can provide evidence of encumbrance or written and authorized request for services and/or commodities	
Procurement staff is sufficient regarding expertise or knowledge	
Terms and conditions contain appropriate rights and remedies, including changes	
Procedures are not restrictive regarding suppliers, with no bias or excessive requirements	
Set aside procedures are reviewed, and in some instances may be discouraged if found to exist with no basis (i.e., no evidence of a disparity, or set-asides are capricious)	
Documented consideration for use of engineer type services (qualifications versus cost)	

Table General Note: Cross reference to the Arizona Procurement Code, which is what the State follows.

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APPENDIX A

Contacts

ADOT

ADOT General Inquiries: (602) 712-7355

<http://www.azdot.gov/>

ADOT Director: (602) 712-7227

http://www.azdot.gov/Executive_Leadership/Index.asp

Accounts Payable: (602) 712-7007

Accounts Receivable: (602) 712-6639

Audit and Analysis Department: (602) 712-7734

<http://www.azdot.gov/about/AuditandAnalysis/overview>

Bridge Group: (602) 712-7481

<http://www.azdot.gov/business/engineering-and-construction/bridge>

Civil Rights Office: (602) 712-7761; Fax (602) 712-8429

<http://www.azdot.gov/business/civil-rights>

- ▶ Americans with Disabilities Act Coordinator (for ADA complaints)
206 South 17th Avenue, 154A
Phoenix, AZ 85007
Phone: (602) 712-7761
Fax: (602) 712-8429

Construction Group: (602) 712-7254

<http://www.azdot.gov/business/engineering-and-construction/construction>

Contracts and Specifications Section: (602) 712-7221

<http://www.azdot.gov/business/ContractsandSpecifications/index.asp>

Contract Payables: (602) 712-8006

Engineering Records Section: (602) 712-7498

<http://www.azdot.gov/business/engineering-and-construction/engineering-records-publications>

Engineering Consultants Section: (602) 712-7525

<http://www.azdot.gov/business/engineering-consultants/index.asp>

Environmental Planning Group: (602) 712-7760

<http://www.azdot.gov/business/environmental-services-and-planning>

- ▶ Phoenix Office
1611 West Jackson Street, Mail Drop EM02
Phoenix, AZ 85007
Phone: (602) 712-7767
Fax: (602) 712-3066
- ▶ Flagstaff Office
1801 South Milton Road, Mail Drop F500
Flagstaff, AZ 86001
Phone: (928) 774-1491
Fax: (928) 774-0784
- ▶ Tucson Office
1221 South 2nd Avenue, Mail Drop T100
Tucson, AZ 85713
Phone: (520) 388-4200
Fax: (520) 388-4255

Field Reports Section: (602) 712-7301

<http://www.azdot.gov/business/engineering-and-construction/construction/field-reports>

Financial Management Services: (602) 712-7441

<http://www.azdot.gov/about/FinancialManagementServices>

Intermodal Transportation Division (ITD): (602) 712-7391

- ▶ ITD Development Program: (602) 712-7391
- ▶ ITD Operations Program: (602) 712-8274
- ▶ ITD Valley Transportation Program: (602) 712-8274

Joint Project Administration Branch: (602) 712-7124

<http://www.azdot.gov/business/programs-and-partnerships/JointProjectAdministration>

LPA Section: (602) 712-4428

<http://www.azdot.gov/business/programs-and-partnerships/LocalPublicAgency>

Materials Group: (602) 712-7231

<http://www.azdot.gov/business/engineering-and-construction/MaterialsGroup>

- Administration Supervisor: (602) 712-8079
- Geotechnical Design Manager: (602) 712-8130
- Geotechnical Operations Manager: (602)712-7231
- Pavement Design Manager: (602) 712-7231
- Pavement Management Manager: (602) 712-3131
- Pavement Materials Testing Manager: (602) 712-7231
- Quality Assurance Manager: (602) 712-8206
- Structural Materials Testing Manager: (602) 712-8205

Multimodal Planning Division: (602) 712-7333

<http://www.azdot.gov/planning/index.asp>

Procurement Office: (602) 712-7211

<http://www.azdot.gov/business/Procurement>

Chief Procurement Officer: (602) 712-6327

Program and Project Management Section: (602) 712-7678

<http://www.azdot.gov/business/ManagementServices/ProgramandProjectManagement>

Partnering Management Section: (602) 712-7120

<http://www.azdot.gov/business/programs-and-partnerships/partnering>

Right of Way (ROW) Group: (602) 712-7316

http://www.azdot.gov/business/RightofWay_Properties

- ROW LPA Liaison: (602) 712-8755

Roadway Engineering Group: (602) 712-4282

<http://www.azdot.gov/business/engineering-and-construction/roadway-engineering>

Roadway Predesign Section: (602) 712-7360

<http://www.azdot.gov/business/engineering-and-construction/roadway-engineering/roadway-predesign-and-review>

State Engineer's Office: (602) 712-7391

<http://azdot.gov/about/inside-adot/ExecutiveLeadership>

Statewide Project Management Section: (602) 712-7545

<http://www.azdot.gov/business/ManagementServices/statewide-project-management>

State Transportation Board: (602) 712-7550

<http://aztransportationboard.gov/>

Systems and Regional Planning Contacts

<http://www.azdot.gov/planning/RegionalPlanning/systems-and-regional-planning-contacts>

- ▶ Director of Planning and Programming: (602) 712-4786
- ▶ Assistant Director of Planning and Programming, Rail Planning, Sustainability, Planning and Environmental linkages: (602) 712-6790
- ▶ Statewide Planning Manager: (602) 712-7477
- ▶ Statewide Projects Planner, PAG, WACOG: (602) 712-7870
- ▶ Statewide Projects Planner, CAAG, CYMPO: (602) 712-7376
- ▶ Statewide Projects Planner, YMPO, SEAGO: (602) 712-7454
- ▶ AZ/Mexico Border Projects, NAFTA Liaison: (602) 712-8048
- ▶ Statewide Projects Planner, Bicycle/Pedestrian Program Coordinator: (602) 712-8141
- ▶ Sustainability Program Manager (602) 712-8958
- ▶ Statewide Projects Planner, FMPO, PARA Program Manager: (602) 712-6196
- ▶ Tribal Planning and Coordination: (602) 712-7029 or (602) 712-6736

Utilities and Railroad Engineering Section: (602) 712-7541

<http://www.azdot.gov/business/engineering-and-construction/utility-and-railroad-engineering>

- ▶ MAG Utility Program Manager: (602) 712-7643
- ▶ Statewide Utility Engineer: (602) 712-8681
- ▶ State Railroad Liaison, Section 130 Program Manager: (602) 712-6193

ADOT District Offices

<http://www.azdot.gov/business/district-contacts>

- ▶ Flagstaff District Office
1801 South Milton Road
Flagstaff, Arizona 86001
Phone: (928) 774-1491
Fax: (928) 779-5905
District Engineer: (928) 779-7547
- ▶ Globe District Office
PO Box 2717
Globe, Arizona 85502-2717
Phone: (928) 402-5600
Fax: (928) 402-5614
District Engineer: (928) 402-5612
- ▶ Holbrook District Office
2407 E. Navajo Blvd
Holbrook, Arizona 86025
Phone: (928) 524-5400 or 1 800-759-4546

Fax: (928) 524-5410
District Engineer: (928) 524-5404

- ▶ Kingman District Office
3660 E. Andy Devine
Kingman, Arizona 86401
Phone: (928) 681-6010
District Engineer: (928) 681-6020
- ▶ ADOT Phoenix Construction District Office
1801 W. Jefferson, Suite 120, MD E700
Phoenix, Arizona 85007-3289
Phone: (602) 712-8965
District Engineer: (602) 712-8965
- ▶ Phoenix Maintenance District Office
2140 W. Hilton Avenue
Phoenix, Arizona 85009-3740
Phone: (602) 712-6664
Fax: (602) 712-6983
District Engineer: (602) 712-6550
- ▶ Prescott District Office
1109 Commerce Drive
Prescott, Arizona 86305
Phone: (928) 777-5861
Fax: (928) 771-0058
District Engineer: (928) 777-5862
- ▶ Safford District Office
2082 U.S. Hwy 70 Safford, Arizona 85546
Phone: (928) 432-4900
Fax: (928) 428-7523
District Engineer: (928) 432-4919
- ▶ Tucson District Office
1221 South 2nd Avenue
Tucson, AZ 85713-1602
Phone: (520) 388-4200
Fax: (520) 628-5387
District Engineer: (520) 388-4216
- ▶ Yuma District Office
2243 E. Gila Ridge Road
Yuma, Arizona 85365
Phone: (928) 317-2100
Fax: (928) 317-2107
District Engineer: (928) 317-2115

Arizona State Land Department

<http://www.azland.gov/>

- ▶ Phoenix Office
1616 W. Adams Street
Phoenix, AZ 85007
(602) 542-4631
- ▶ Southern Arizona Office
(520) 209-4250

Council of Governments and Metropolitan Planning Organizations

Central Arizona Association of Governments (CAAG): (480) 474-9300 or (800) 782-1445
<http://www.caagcentral.org/>

Central Yavapai Metropolitan Planning Organization (CYMPO): (928) 442-5730
<http://www.cympo.com/index.php>

Flagstaff Metropolitan Planning Organization (FMPO): (928) 774-5281
<http://www.flagstaff.az.gov/index.aspx?NID=995>

Maricopa Association of Governments (MAG): (602) 254-6300
<http://www.azmag.gov/>

Northern Arizona Council of Governments (NACOG): (928) 774-1895
<http://www.nacog.org/>

Pima Association of Governments (PAG): (520) 792-1093
<http://www.pagnet.org/>

SouthEastern Arizona Governments Organization (SEAGO): (520) 432-5301
<http://www.seago.org/>

Western Arizona Council of Governments (WACOG): (928) 669-9466
<http://www.wacog.com/>

Yuma Metropolitan Planning Organization (YMPO): (928) 783-8911
<http://ympo.org/>

Counties—Flood Control

Coconino County Community Development: (928) 679-8850
<http://www.coconino.az.gov/index.aspx?NID=136>

Cochise County Highway and Floodplain Department: (520) 432-9300
http://cochise.az.gov/cochise_highways_floodplain.aspx?id=266&ekmense=c580fa7b_172_0_266_2

Gila County Public Works: Globe Area (928) 425-3231; Payson Area (928) 472-5340
<http://co.gila.az.us/index.html>

Maricopa County Flood Control District: (602) 506-1501

<http://www.fcd.maricopa.gov/index.aspx>

Mohave County Flood Control District: (928) 757-0925

<http://www.co.mohave.az.us/ContentPage.aspx?id=124&cid=392>

Pima County Regional Flood Control District: (520) 243-1800

<http://rfcd.pima.gov/>

Santa Cruz County Flood Control: (520) 375-7800

<http://www.santacruzcountyaz.gov/238/Flood-Control>

Yavapai County Flood Control Prescott: (928) 771-3197

<http://www.co.yavapai.az.us/Content.aspx?id=15924>

Yavapai County Flood Control Cottonwood: (928) 639-8151

<http://www.co.yavapai.az.us/Content.aspx?id=15924>

Yuma County Flood Control: (928) 817-5000

<http://www.co.yuma.az.us/departments-and-services/development-services/divisions/flood-control>

FHWA

Arizona Division

<http://www.fhwa.dot.gov/azdiv/staff.htm>

4000 N. Central Avenue, Ste. 1500

Phoenix, Arizona 85012-3500

Phone: (602) 379-3646

Fax: (602) 382-8998

FHWA Arizona Division Local Programs Manager: (602) 382-8972

FHWA Arizona Division Civil Rights Specialist: (505) 820-2036

Office of Civil Rights: (202) 366-0693

<http://www.fhwa.dot.gov/civilrights/index.htm>

Office of Program Administration, LPA Contact: (202) 366-4630

<http://www.fhwa.dot.gov/programadmin/>

Other

Arizona Blue Stake

Statewide: 1-800-STAKEIT (1-800-782-5348)

Maricopa County: (602) 263-1100

<http://www.azbluestake.com/>

U.S. Army Corps of Engineers

<http://www.usace.army.mil/Home.aspx>

- ▶ Los Angeles District Regulatory Division: (213) 452-3425
Mailing: P.O. Box 532711, Los Angeles, CA 90053-2325
Office: 915 Wilshire Blvd., 11th Floor, Los Angeles, 90017-3401
<http://www.spl.usace.army.mil/>
- ▶ Arizona Branch Office: (602) 230-6949
3636 N. Central Ave., Suite 900 Phoenix, AZ 85012-1939
- ▶ Tucson Field Office: (520) 584-1690
5205 E. Comanche St., Davis Monthan AFB, AZ 85707

APPENDIX B

Glossary



A

acquisition

The process required to obtain an interest in, and possession of, real property.

ADOT/LPA stewardship agreement

Legally binding document that delegates approval authority to an LPA for specified areas of authority; this agreement is required for Certification Acceptance projects.

ADOT administration

Project administration for LPA projects in which ADOT actively manages and has approval authority over all phases of the project; the LPA remains actively involved in all phases of the project development process and keeps the project on schedule and within the approved budget. ADOT will administer federally funded LPA projects, unless the LPA has been approved to self-administer or has been approved under the Certification Acceptance Program.

advertisement for bid

Advertisement of a project in order to receive bids from consultants and contractors to provide advice or services for the project. Federal-aid projects must be advertised either by ADOT or by an authorized LPA.

affirmative action

A good-faith policy intended to eliminate past and present discrimination and to ensure that future discriminatory practices do not occur. Affirmative action ensures that job applicants and employees are treated without regard to their race, religion, sex, color, national origin, age, or disability. Actions covered in the policy 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.

allocation

An administrative distribution of funds for programs that do not have statutory distribution formulas.

apportionment

Distribution of funds to a particular category among the states, as prescribed by a statutory formula.

appropriation

The act of acquiring right-of-way on Bureau of Land Management lands for federal-aid highway purposes; right-of-way is issued by the Bureau of Land Management to FHWA under Title 23 of the United States Code.

area of potential effect (APE)

A project study area that expands beyond the actual footprint of a project and includes anticipated detours, equipment staging areas, new right-of-way, and easements. A clearly defined APE should be based on the purpose and need and should incorporate all aspects of the project. The APE is typically determined during the preliminary design phase and should be large enough to provide some flexibility through the design phase to account for alternatives that may be analyzed.

as-built plans

The final set of ADOT construction plans showing improvements as ultimately constructed. These plans are generated upon completion of project construction; they often differ from the plans generated at the time the contract for the project is awarded due to changes made “in the field” during the construction and landscaping phases of a project.

attainment area

An area considered to have air quality as good as or better than the national ambient air quality standards as defined in the Clean Air Act. An area may be an attainment area for one pollutant and a nonattainment area for others.

authorization

Approval by FHWA for a given project to move forward. Authorization is required at several phases of the project development process (preliminary engineering, right-of-way, and construction). Funding authorization must be secured before work begins; work that is completed before the federal-aid authorization effective date will not be reimbursed.

B**bid package**

All plans, specifications, estimates, construction documents, bid forms, and bid bonds relevant to a construction project prepared for advertising and soliciting contractor bids.

blanket public interest finding (PIF)

A PIF that has been approved for a material or product and is approved for specific situations for a set timeframe. Only FHWA has the authority to approve a blanket PIF. See also *public interest finding*.

bridge

A structure including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet (6.1 meters) between undercopings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening. (23 Code of Federal Regulations 650.3)

C**CANAMEX**

Transportation corridor linking Canada to Mexico through the United States established under the North American Free Trade Agreement in 1995.

categorical exclusion (CE)

A category of action that meets the definition contained in 40 Code of Federal Regulations (CFR) 1508.4 and 23 CFR 771.117 and, based on past experience with similar actions, that does not involve significant individual or cumulative environmental impacts. These actions do not induce significant impacts on planned growth or land use for the area, do not require the relocation of significant numbers of people; do not have a significant impact on any natural, cultural, recreational, historic, or other resource; do not involve significant air, noise, or water quality impacts; do not have significant impacts on travel patterns; and do not otherwise, either individually or cumulatively, have any significant environmental impacts. See also *Group 1 categorical exclusion*, *Group 2 categorical exclusion*, *nonprogrammatic categorical exclusion*, and *programmatic categorical exclusion*.

categorical exclusion (CE) checklist

Documentation required for some types of CE projects, including nonprogrammatic Group 2 CEs with minor ground disturbance and programmatic and nonprogrammatic Group 2 CEs with more-than-minor ground disturbance. The CE checklist template and *Checklist Completion Guidelines* are available in the

Categorical Exclusions section of the online ADOT Environmental Planning Group Guidance and Documents index.

Certification Acceptance Program

Program through which an LPA may be authorized to independently manage most aspects of the project development process, with ADOT oversight.

certified local public agency (LPA)

An LPA that has been approved under the Certification Acceptance Program to independently manage most aspects of the project development process, with ADOT oversight. A certified LPA retains a significant degree of approval authority at the local level when developing federally funded transportation projects.

Class I survey

A literature and archival search that is usually completed during the project scoping phase and that is used to determine whether all or portions of the project area were previously inventoried, to identify known cultural resources both within the project area and within the vicinity of the project area, and to make recommendations for additional investigations.

Class III survey

Systematic pedestrian survey designed to identify all cultural resources, both prehistoric and historic, within the project area. Project areas not previously investigated, as determined in the Class I survey, or that are not adequate for consultation will generally require a Class III survey. The Class III survey typically takes place during the project's design phase. Class III survey reports typically describe identified cultural resources, National Register of Historic Places eligibility recommendations, potential impacts on identified resources, and management recommendations for the avoidance or treatment of those resources.

commercially useful function

Performed when a Disadvantaged Business Enterprise is responsible for the execution of a distinct element of the work of a contract by actually managing, performing, and supervising the work involved (49 CFR 26.55).

condemnation

The legal process by which a governmental body, such as ADOT, exercises its right of eminent domain to appropriate private property for public good. Condemnation includes a resolution of public need; an offer to purchase; and, if a negotiated purchase is not possible, a condemnation suit.

condensed clearance memo

Documentation required for projects that meet Group 2 categorical exclusion programmatic guidelines but that involve only minor ground disturbance. FHWA and ADOT have developed the condensed clearance memo to streamline the environmental clearance process for those types of projects. A condensed clearance memo combines the clearance memo with a brief project evaluation of potential effects and mitigation with supporting analyses, as needed.

construction administration

Management of construction activities. Typical construction-administration responsibilities include approval of construction staking and surveying, review of shop drawings and contractor submittals, materials testing and certifications, daily reviews and inspections of construction activities, and ensuring that the workmanship and materials are in accordance with the approved project specifications and estimates and other documents incorporated by reference in the project specifications and estimates package. An LPA is also responsible for ensuring that independent quality-assurance activities related to workmanship and materials are completed as part of construction administration.

contract authority

Legal authority to enter into contracts or incur other obligations in advance of, or in excess of, funds available for that purpose.

controlling design criteria

American Association of State Highway and Transportation Officials policy defines 13 controlling design criteria, recognized by FHWA, which must be followed in project design. The 13 criteria include design speed, lane width, shoulder width, bridge width, horizontal alignment, superelevation, vertical alignment, grade, stopping sight distance, cross slope, vertical clearance, horizontal clearance, and structural capacity/bridge barrier. If these 13 controlling criteria cannot be met, a design exception must be requested and approved by FHWA (for projects on the National Highway System) or ADOT (for projects off the National Highway System) before incorporation into a project.

council of governments (COG)

Cooperative group formed to foster mutual decision making for LPAs. Membership is open to all cities, towns, counties, and tribal governments in the planning area. These planning organizations serve multiple functions specific to the region, but transportation planning is a central responsibility.

D**Davis-Bacon and Related Acts (DBRA)**

A federal law requiring federal contractors to pay prevailing wages on public works projects. All federal government construction contracts, and most contracts for federally assisted construction over \$2,000,

must include provisions for paying on-site workers no less than the locally prevailing wages and benefits paid on similar projects.

deobligation

Downward adjustment of the obligations for a given project. Federal funds may be deobligated if the obligated amount exceeds the current cost of the project or if the project becomes inactive as defined in 23 CFR 630A.

design concept report (DCR)

Scoping document for complex projects. Design concept reports include a completed project schedule, preliminary project design plans (to Stage I), details and cross sections, and a detailed cost estimate based on the format provided at the predesign conference.

design exceptions

An exception to established design standards or criteria. Design exceptions are required if the project cannot meet one or more design criteria, and they are typically required when trying to apply established design criteria in constrained areas. Design exceptions need to be justified and must apply sound engineering decisions.

design stages

The standardized design segments for ADOT's design process: 15% design (Stage I), 30% design (Stage II), 60% design (Stage III), 95% design (Stage IV), and 100% design (Stage V, also known as plans, specifications, and estimates).

design criteria

Specifications of dimensions, materials, procedures, etc., that directly affect the project design. Design criteria ensure that project designs provide safe and fully functional transportation-related facilities. All applicable federal, state, and local design criteria must be followed for LPA projects. Also known as "design standards."

design standards

See *design criteria*.

Determination of Effect

The official determination by the ADOT Historic Preservation Team of a project's potential to affect identified cultural resources. The determination is the result of ADOT's review of the cultural resources survey report and coordination between ADOT and FHWA.

E**eminent domain**

The right of the government to appropriate private property for the public good. Eminent domain laws are defined in Arizona Revised Statutes 12-111 and 28-7091 through 28-7103.

environmental assessment (EA)

Document prepared pursuant to the National Environmental Policy Act, 40 Code of Federal Regulations (CFR) 1500–1508 and 23 CFR 771.119, in order to assist in determining the significance of impacts of a proposed transportation project. An EA describes the positive and negative environmental effects of a proposed action and should be prepared for each proposed action that does not meet the criteria for a categorical exclusion and that does not clearly require the preparation of an environmental impact statement. An EA may satisfy National Environmental Policy Act compliance or may only assist in determining if further analysis is needed in the form of an environmental impact statement. If it is found that significant impacts will result, the preparation of an environmental impact statement should commence immediately.

environmental impact statement (EIS)

Document prepared pursuant to the National Environmental Policy Act, 40 Code of Federal Regulations (CFR) 1500–1508 and 23 CFR 771.123 and 771.125, for a proposed project that is likely to cause significant impacts on the environment. An EIS is a full-disclosure document that details the process through which a transportation project was developed, describes a range of reasonable alternatives, analyzes the potential positive and negative impacts resulting from the proposed action and the alternatives, and demonstrates compliance with other applicable environmental laws and executive orders. An EIS is a decision-making tool.

environmental justice

The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to transportation programs, policies, or activities. Fair treatment means that minority and low-income groups should not bear a disproportionate share of the negative environmental impacts of government actions.

environmental scoping

Communication to public and private entities of the planned project and an identification of environmental resource issues and public concerns. It is the first phase of compliance with the National Environmental Policy Act, and information discovered during this phase can affect the project scope. Environmental scoping, depending on the anticipated National Environmental Policy Act document required to authorize the project, may include scoping letters and public involvement (open houses, public hearings, or both).

exempt

Projects that are exempt from the Arizona Procurement Code. These include standard transportation construction projects, specifically those that involve construction or reconstruction of highway or transportation facilities (including services directly related to land titles, appraisals, real property acquisition, relocation, property management, or building facility design and construction for highway development). The ADOT project manager will determine whether a given LPA project is exempt or nonexempt.

F**federal-aid highway**

Any highway on the National Highway System or the Interstate System and all other public roads not classified as local roads or rural minor collectors.

Federal-Aid Highway Program

An umbrella term, not defined in law, which in general refers to most of the federal programs providing highway funds to the states. When used in a budgetary context, Federal-Aid Highway Program specifically refers to highway programs financed by contract authority out of the Highway Account of the Highway Trust Fund, plus any Highway Trust Fund supplemental appropriations for the Emergency Relief Program. Such authorizations are contained in Titles I and V of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users and in 23 United States Code 125, as well as in acts providing supplemental appropriations.

federal-aid match

The percentage of project costs funded with federal monies. Also known as “federal share” or “pro rata amount.”

federal-aid number

Project identification number assigned by ADOT for federally funded projects.

federal fiscal year

A term used to differentiate the federal budget or financial year from the calendar year. The federal fiscal year runs from October 1 of the prior year through September 30 of the year being described.

federal nexus

Federal connection to the project, such as use of federal funds or federal approval/permitting requirements.

federal share

See *federal-aid match*.

FHWA and ADOT Stewardship and Oversight Agreement for Arizona

An agreement document that outlines the roles and responsibilities of both FHWA (Arizona Division) and ADOT in the oversight and administration of the Federal-Aid Highway Program in Arizona. Through the agreement, FHWA delegates specific oversight roles and approval responsibilities to ADOT for certain project-level actions and authorities (i.e., design, plans, specifications, estimates, contract awards, and inspections of projects), as defined in Title 23 USC 106.

Finding of No Significant Impact (FONSI)

Document prepared by FHWA following review of the final environmental assessment, and after coordination with cooperating agencies and FHWA legal reviews, if they concur with the findings of the environmental assessment that the project will not result in significant environmental impacts (see 40 Code of Federal Regulations 1508.13).

Five-Year Transportation Facilities Construction Program for Highways and Airports (Five-Year Program)

Program that serves as ADOT's capital improvement program and that documents all projects on the State Highway System for which funding has been committed by the State Transportation Board.

G**geotechnical clearance**

Approval by ADOT, following the review of the Geotech Compliance Form, to permit the geotechnical investigation plan to proceed. The Geotech Compliance Form (the overall environmental checklist) provides evidence of environmental compliance for the proposed geotechnical operation and addresses overall environmental issues, including mitigation measures, land ownership, and compliance with Clean Water Act, biological, hazardous material, and cultural regulations.

Group 1 categorical exclusion (CE)

A category of action that meets the definition of a categorical exclusion that does not involve ground disturbance and is programmatic. See also *categorical exclusion*.

Group 2 categorical exclusion (CE)

A category of action that meets the definition of a categorical exclusion and either (1) does not cause ground disturbance but is nonprogrammatic based on the guidelines in the 2008 Arizona Programmatic Categorical Exclusion Approval agreement, or (2) involves ground disturbance and is either programmatic or nonprogrammatic. See also *categorical exclusion*.

individual permit (IP)

A Section 404 permit that authorizes activities involving the discharge of dredged or fill material into waters of the United States that do not meet the conditions of any nationwide permit or that exceed the threshold of the applicable nationwide permit. An individual permit necessitates greater input on project purpose and need compared to a nationwide permit, and must identify a least environmentally damaging practicable alternative through the completion of a Section 404(b)(1) Evaluation and Alternatives Analysis. See also *Section 404*.

intergovernmental agreement (IGA)

Legally binding documents that define the obligations of all parties involved in a project; required for ADOT-administered and self-administered LPA projects. Intergovernmental agreements and joint project agreements carry the same statutory requirements, but they generally differ in that intergovernmental agreements are agreements between public entities and joint project agreements are agreements between ADOT and the private sector.

J**joint project agreement (JPA)**

Legally binding documents that define the obligations of all parties involved in a project; Intergovernmental agreements and JPAs carry the same statutory requirements, but they generally differ in that intergovernmental agreements are agreements between public entities and JPAs are agreements between ADOT and the private sector.

Journeyworker

A person capable of performing all the duties within a given job classification or craft.

jurisdictional delineation (JD)

An evaluation of the potential for the existence of waters of the United States on a given project site by assessing the presence or absence of an ordinary high-water mark and other specific physical characteristics according to U.S. Environmental Protection Agency and U.S. Army Corps of Engineers guidance.

just compensation

Amount paid to obtain a property for new right-of-way from private owners; generally fair market value for the property, but varies property by property.

L**letter of agreement**

A type of supplemental agreement that ADOT may use for construction contracts. It is a simple supplemental agreement for additional work performed when it is less than \$10,000. It is not used for changes to the design plans or specifications, or for adding days to contract time.

local matching funds

The percentage of project costs paid by the state, local public agencies, or both to make up for funding not provided by FHWA. Local public agencies are responsible for providing local matching funds for LPA projects. Matching funds for LPA projects may come from local taxes, private donations, toll credits, or market value of donated rights-of-way. The local matching funds for a given project are due within 30 days of execution of the intergovernmental agreement. Also referred to as “local match.”

local public agency (LPA)

Any city, town, county, or tribal government.

M**materials design report (MDR)**

A report required for materials clearance that includes soils information, a geotechnical investigation report, a pavement design summary, a preliminary pavement structure cost estimate, and an initial design report. The materials design report ensures that an LPA project meets ADOT’s procedures and guidelines for testing and design.

memorandum of agreement

A legally binding document describing a multilateral agreement between parties, which is used for a specific federal-aid project that may or will have an adverse effect to historic properties, when the impacts on historic properties are known. Development and execution of a memorandum of agreement by the ADOT Historic Preservation Team may be required to resolve any potential “adverse effects” on cultural resources, to satisfy cultural resources consultation requirements, and to ensure a final determination of “no adverse effect.”

memorandum of understanding

A document describing a multilateral agreement between parties (e.g., FHWA, ADOT, the LPA, and other affected agencies or tribes). It expresses a convergence of will between the parties, indicating an intended common line of action, but without the bind power of a contract.

metropolitan planning organization (MPO)

A federally funded organization consisting of representatives from local governments and governmental transportation authorities that organizes and directs transportation planning processes for all urbanized areas. MPOs are required for areas with populations of 50,000 or more. MPOs are also responsible for the development of regional transportation plans and transportation improvement programs that conform to the State Long-Range Transportation Plan and Statewide Transportation Improvement Program processes.

mitigation measure

Action taken (a) to avoid an impact altogether by not taking a certain action or parts of an action; (b) to minimize impacts by limiting the degree or magnitude of the action and its implementation; (c) to rectify an impact by repairing, rehabilitating, or restoring the affected environment; (d) to reduce or eliminate an impact over time by preservation and maintenance operations during the life of the action; or (e) to compensate for an impact by replacing or providing substitute resources or environments (see 40 CFR 1508.20).

N**National Ambient Air Quality Standards (NAAQS)**

Standards established by the U.S. Environmental Protection Agency to regulate pollutants considered harmful to public health or welfare. Currently, there are National Ambient Air Quality Standards for six primary, or criteria, pollutants: sulfur dioxide, carbon monoxide, ozone, lead, particulate matter, and nitrogen oxides.

nationwide permit (NWP)

A Section 404 permit that authorizes certain activities involving the discharge of dredged or fill material into waters of the United States, as defined under the U.S. Army Corps of Engineers June 2007 Nationwide Permit Program for the State of Arizona. Nationwide permits authorize discharges into waters of the United States that occur due to a variety of specific activities, provided that the project meets the conditions for the applicable nationwide permit. Depending on the conditions for a given nationwide permit and interaction with surrounding resources (i.e., cultural and biological resources), the LPA may be required to notify the U.S. Army Corps of Engineers of the project specifications before authorization. If the conditions for the applicable nationwide permit cannot be met, an individual permit is required. See also *Section 404*.

nonattainment areas

An area considered to have air quality that does not meet one or more of the National Ambient Air Quality Standards as defined in the Clean Air Act. An area may be an attainment area for one pollutant and a nonattainment area for others.

nonexempt

Projects that are not exempt from, and must adhere to, the Arizona Procurement Code. These include those that are not standard transportation construction projects, specifically those undertaken to maintain existing highway facilities or to construct/reconstruct nonhighway facilities. The ADOT project manager will determine whether a given LPA project is exempt or nonexempt.

nonprogrammatic categorical exclusion (CE)

Actions that meet the qualifications for a CE and that possess one or more of the conditions for nonprogrammatic status listed in the June 2008 Arizona Programmatic Categorical Exclusion Approval agreement. Nonprogrammatic CEs must be reviewed and approved by FHWA following ADOT review and approval and may require some level of involvement by FHWA as the project is reviewed. Examples of nonprogrammatic actions include but are not limited to actions that involve tribal land, actions that require new right-of-way on federal land, or actions that involve “use” of properties protected by Section 4(f) of the U.S. Department of Transportation Act of 1966. See also *categorical exclusion*.

Notice of Availability

A formal notice published in the *Federal Register* that announces the issuance and public availability of a draft or final environmental impact statement.

Notice of Intent (NOI)

Notice that an environmental impact statement will be prepared and considered (see 40 CFR 1508.22).

Notice of Termination

Notice that the LPA is no longer authorized to discharge stormwater associated with industrial activity under the Arizona Pollutant Discharge Elimination System program for the facility. A Notice of Termination must be submitted within 30 days after the covered discharges cease permanently or responsibility for the discharging facility (or group of facilities) is transferred.

Notice to Proceed

Notice from ADOT to the LPA stating the date work can begin on a project.

O**obligation**

A legal commitment from FHWA to reimburse the eligible costs of the authorized federal portion of the project.

on-the-job training (OJT) program

An apprenticeship program that is managed by ADOT Civil Rights Office for the purpose of training and upgrading minorities and women toward journeyworker status.

ordinary high-water mark

The line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas (33 Code of Federal Regulations 328.3). The ordinary high-water mark identifies the lateral limits of nonwetland waters.

P**person in responsible charge**

The full-time LPA staff member who serves as the agency contact for the project, ensures project compliance with applicable regulations, commits resources for project activities, closely monitors the project progress, participates in decisions that may modify the project, and maintains project records.

potholing

See *subsurface utility engineering (SUE)*.

preliminary initial site assessment (PISA)

A hazardous materials evaluation document that summarizes the results of a records check, as well as observations made during field verification. The records check reviews U.S. Environmental Protection Agency and Arizona Department of Environmental Quality records of hazardous materials sites of incidents, such as leaking underground storage tanks, landfills, spills, etc. A PISA is required for a hazardous materials clearance.

prior rights

The identification that utilities (public and private) were in place before establishment of a public roadway. If the roadway is in place before the establishment of the utilities, then the utilities are there “by permit” and must be relocated at the utility companies’ expense. If the utility has “prior rights,” then ADOT is responsible for utility relocations.

Priority Planning Advisory Committee

The Priority Planning Advisory Committee is a statutory public body appointed by the Director of ADOT and subject to ARS Title 38 Open Meeting Laws of Arizona. The committee is responsible for updating and preparing the Five-Year Transportation Facilities Construction Program for Highways and Airports.

procurement

Purchasing goods or services using federal funds; procurement can take place only after the project is in the State Transportation Improvement Plan and has received federal funding authorization. For ADOT-administered and self-administered projects, an intergovernmental agreement must also be in place.

programmatic agreement

A legally binding document describing a multilateral agreement between parties, which is generally required for very complex or long term federal-aid projects that may or will have an adverse effect to historic properties. Project agreements are used when a specific project is likely to impact historic properties, but the nature of those impacts are not yet known (such as may be the case for environmental assessment or environmental impacts statement projects, where the final alternative has not yet been decided, but all alternatives would adversely affect some historic properties). Development and execution of a project agreement by the ADOT Historic Preservation Team may be required to resolve any potential “adverse effects” to cultural resources, satisfy cultural resources consultation requirements, and ensure a final determination of “no adverse effect.”

programmatic categorical exclusion (CE)

Actions that meet the qualifications for a CE and that do not possess any of the conditions for nonprogrammatic status listed in the June 2008 Arizona Programmatic Categorical Exclusion Approval agreement. Programmatic CEs can generally be reviewed and approved by ADOT without further approval by FHWA. See also *categorical exclusion (CE)*.

programming

Programming occurs on the project level and involves the development of short-term, fiscally constrained, capital improvement programs that commit funds to specific projects. During programming, ADOT works to carry out federal transportation policy and administer federal funding requirements.

project assessment (PA)

A scoping document that ensures project components have been sufficiently defined, a reliable cost estimate has been established, and a schedule has been developed that meets the LPA’s desired construction start date.

project audit

Review by ADOT of project documentation to determine whether construction costs included in the Money Summary of Progress and Final Payment Report are supported in accordance with the requirements of the ADOT *Construction Manual* and other applicable policies and procedures.

project closeout

Process in which ADOT conducts a final review of a project to ensure the LPA completed the project in accordance with the approved contract documents and federal-aid requirements.

project-specific public interest finding (PIF)

A PIF that is only applicable for a single project. See also *public interest finding*.

pro rata amount

See *federal-aid match*.

public interest finding (PIF)

As used in 23 CFR 635.411(c), an approval by FHWA, based on a request from a contracting agency (e.g., LPAs, ADOT), that it is in the public interest to allow the contracting agency to require the use of a specific material or product even though other equally acceptable materials or products are available. See also *blanket public interest finding* and *project-specific public interest finding*.

Q**quality assurance (QA)**

The establishment of quality standards and a system of observation/sampling techniques to confirm that those standards are met.

quality control (QC)

The active implementation of control measures to ensure quality standards are met.

R**recipient**

An administrative entity or person to whom federal assistance is directly extended and whose conduct is subject to Title VI/nondiscrimination and compliance obligations.

Record of Decision (ROD)

The determination of the preferred alternative issued by FHWA following review of the final environmental impact statement. The ROD includes the basis for the decision, as specified in 40 Code of Federal Regulations 1505.2; a summary of any mitigation measures that will be incorporated in the project; documentation of any required Section 4(f) approval; and any comments received on the final environmental impact statement.

regional transportation plan (RTP)

A plan that outlines a region's long-term vision for transportation and helps guide transportation investment decisions. An RTP, which is also referred to as a metropolitan plan, covers all major modes of transportation, including freeways and highways, streets, mass transit, airports, bicycles and pedestrian

facilities, the movement of goods, and special needs transportation. RTPs also address other related issues, such as transportation-demand management, system management, safety, security, and air quality conformity analysis (for TMAs and air quality nonattainment and maintenance areas). They identify the anticipated use for each mode of travel and make recommendations for the general location where major new facilities should be constructed. RTPs also identify where improvements to the street system should be considered and the nature, size, and coverage of the transit system.

registered professional

A person registered with the Arizona Board of Technical Registration. This may be an LPA staff member or a consultant selected through approved procedures.

right-of-way (ROW) plan

A plan associated with a transportation project that indicates all properties required to construct and maintain the project, including temporary construction easements. To develop a ROW plan, the LPA must assess ROW ownership and title data and determine the amount of lead time and certification required. If new ROW is needed, the ROW plan must also contain data essential for appraisal and negotiation activities and for preparation of legal descriptions of the properties to be acquired.

S**Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)**

An authorization act that contains a number of funding programs. Authorizations are contained in Titles I and V of SAFETEA-LU and in 23 United States Code 125. Authorizations are also contained in acts providing supplemental appropriations.

scoping

The process of defining a project's purpose and need, budget, schedule, scale, and any anticipated issues and opportunities. Projects must be evaluated during the planning process, during the programming process, when funds are committed, and during the design phase of project development.

Section 106

The section of the National Historic Preservation Act (as amended) that requires all federal agencies to consider the effects of their undertakings on historic properties (see 36 Code of Federal Regulations 800).

Section 4(f)

The section of the U.S. Department of Transportation Act of 1966 (49 United States Code 303) that prohibits FHWA and all state transportation agencies from approving a transportation program or project requiring the use of any Section 4(f) property unless a determination is made that the use will have no more than a de minimis impact on the area, that there is no feasible and prudent alternative to using the

property, or that the program or project includes all possible planning to minimize harm to the property resulting from the use (see 23 Code of Federal Regulations 774).

Section 401

The section of the Clean Water Act that requires the U.S. Army Corps of Engineers to seek state water-quality certification for proposed discharges into waters of the United States associated with the project in order to ensure compliance with applicable effluent limits, Arizona's water quality standards, and any other appropriate requirements of state law.

Section 404

The section of the Clean Water Act that requires U.S. Army Corps of Engineers authorization for all discharges of dredged or fill material in waters of the United States, including jurisdictional wetlands. See also *individual permit* and *nationwide permit*.

self-administration

Project administration for LPA projects in which the LPA manages and has approval authority over specified areas of authority in a specified phase of the project. The LPA must be approved to self-administer on a project-by-project basis.

sliding-scale adjustment

An adjustment made to the local-federal match ratio, which generally results in an increase in the federal share and a decrease in the required local match. The normal federal share of 80% for noninterstate projects and 90% for interstate projects is adjusted upward, based on a sliding scale, to no more than 95% for states with large amounts of federal lands (over 5% of the total area of the state).

sponsor

The individual or organization that manages, monitors, funds, and is responsible for the overall project delivery (i.e., the LPA).

stakeholder

Any person or organization that is actively involved in a project or that has an interest in the outcome of the project.

State Long-Range Transportation Plan (LRTP)

A plan that outlines the long-term priorities for state transportation and guides state transportation investment decisions. It provides estimates of transportation needs and funding, along with strategic guidance for how ADOT will make investment decisions over the next 25 years.

statewide transportation framework

A framework that outlines a long-term vision for state transportation and guides state transportation investment decisions.

Statewide Transportation Improvement Program (STIP)

A capital improvement program for statewide transportation. This program is a 4-year project-specific, fiscally constrained capital improvement program made up of all projects contained in current regional Transportation Improvement Programs and the Five-Year Transportation Facilities Construction Program. The inclusion of projects in the Statewide Transportation Improvement Program is necessary for obligating federal-aid funds.

stormwater pollution prevention plan (SWPPP)

A detailed document that describes how a contractor will address, control, and maintain structural implements and nonstructural practices designed to reduce pollution and restore conditions of natural surroundings before, during, and after construction phases.

subrecipient

Receiver of federal assistance indirectly through a recipient or another subrecipient. Subrecipients are subject to Title VI/nondiscrimination and compliance obligations.

subsurface utility engineering (SUE)

A process for obtaining accurate and comprehensive information about underground utilities. Also known as "potholing."

succession plan

A plan for identifying, recruiting, and developing members with the potential to fill key roles within an organization (e.g., the project team).

T**temporary construction easement**

The right to temporarily use the real property of another for construction purposes. This right terminates after the completion of construction activities.

third-party project administration

A type of project administration in which a certified LPA administers projects on behalf of a noncertified LPA. Projects administered using a third-party administrator must meet all applicable state, federal, and tribal laws, regulations, and requirements for federally funded LPA projects. However, the third-party administrator will use its own procedures to administer the project. An intergovernmental agreement

between ADOT and the third-party administrator that specifies the details of project funding and administration is required.

Title VI

The section of the 1964 Civil Rights Act intended to prevent individuals from being excluded in, denied the benefit of, or subjected to discrimination on the basis of race, color, national origin, age, sex, and disability.

TRACS number

Project identification number assigned by ADOT. A project must be included in the Statewide Transportation Improvement Program and scoped in order to receive a TRACS number. ADOT provides federal-aid and TRACS project numbers for all federally funded design, right-of-way, utility, and construction projects.

transportation improvement program (TIP)

A regional collection of LPA projects programmed with federal-aid funds as identified in Title 23 and Title 49 of the Code of Federal Regulations. Projects contained in a TIP are developed in cooperation with their respective metropolitan planning organization or council of governments, technical advisory committees, and executive board or administration committees in consultation with the ADOT Multimodal Planning Division.

transportation management area (TMA)

A metropolitan planning organization with more than 200,000 residents designated by FHWA. These planning organizations must comply with special requirements regarding congestion management systems, project selection, and certification.

transportation planning

An interdisciplinary process that systematically analyzes transportation issues and their impacts on Arizona's social, economic, physical, natural, and political environment. The goal of transportation planning is to identify the improvements and infrastructure needed to ensure a safe transportation system that has the capacity to meet the state's current and future needs. Planning occurs on the state transportation system level, as well as on the project level.

Type 1 federally funded highway project

A project that either increases the capacity of the roadway or alters the vertical or horizontal alignment of the transportation facility.

U**Uniform Relocation Assistance and Real Property Acquisition Policies Act for Federal and Federally Assisted Programs (Uniform Act)**

The primary law for acquisition and relocation activities on federal or federally assisted projects and programs (42 United States Code 61). The Uniform Act provides assistance and protection to people affected by federally funded projects. The law protects individuals and groups whose real property is acquired or who are displaced by projects that receive federal funds.

V**value engineering (VE)**

The systematic application of recognized techniques by a multidisciplinary team to identify the function of a product or service, to establish a worth for that function, to generate alternatives through the use of creative thinking, and to provide the needed functions to accomplish the original purpose of the project reliably and at the lowest life cycle cost.

W**waters of the United States (Waters)**

Waterbodies under the jurisdiction of the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers, as defined under 33 Code of Federal Regulations 328.3.

wetlands

Areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Y**year of expenditure**

The year in which a given purchase will be made for a project. The year of expenditure must be considered when estimating project costs in order for those costs to be appropriately adjusted for inflation.

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