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Key Objectives

- What is the federal aid process?
- What are the options for delivering a federal aid project?
- What elements of the federal aid process are different than a typical process?
- What should agencies make sure to include in their budget and scope?

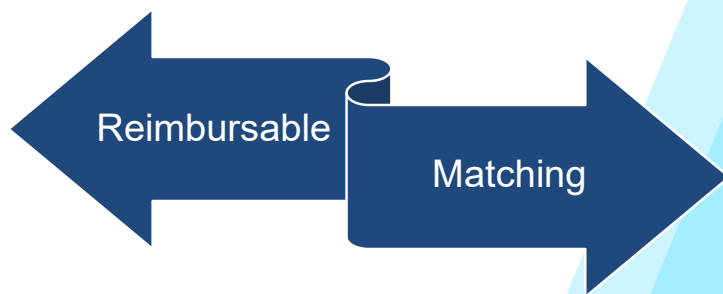


FEDERAL AID PROCESS

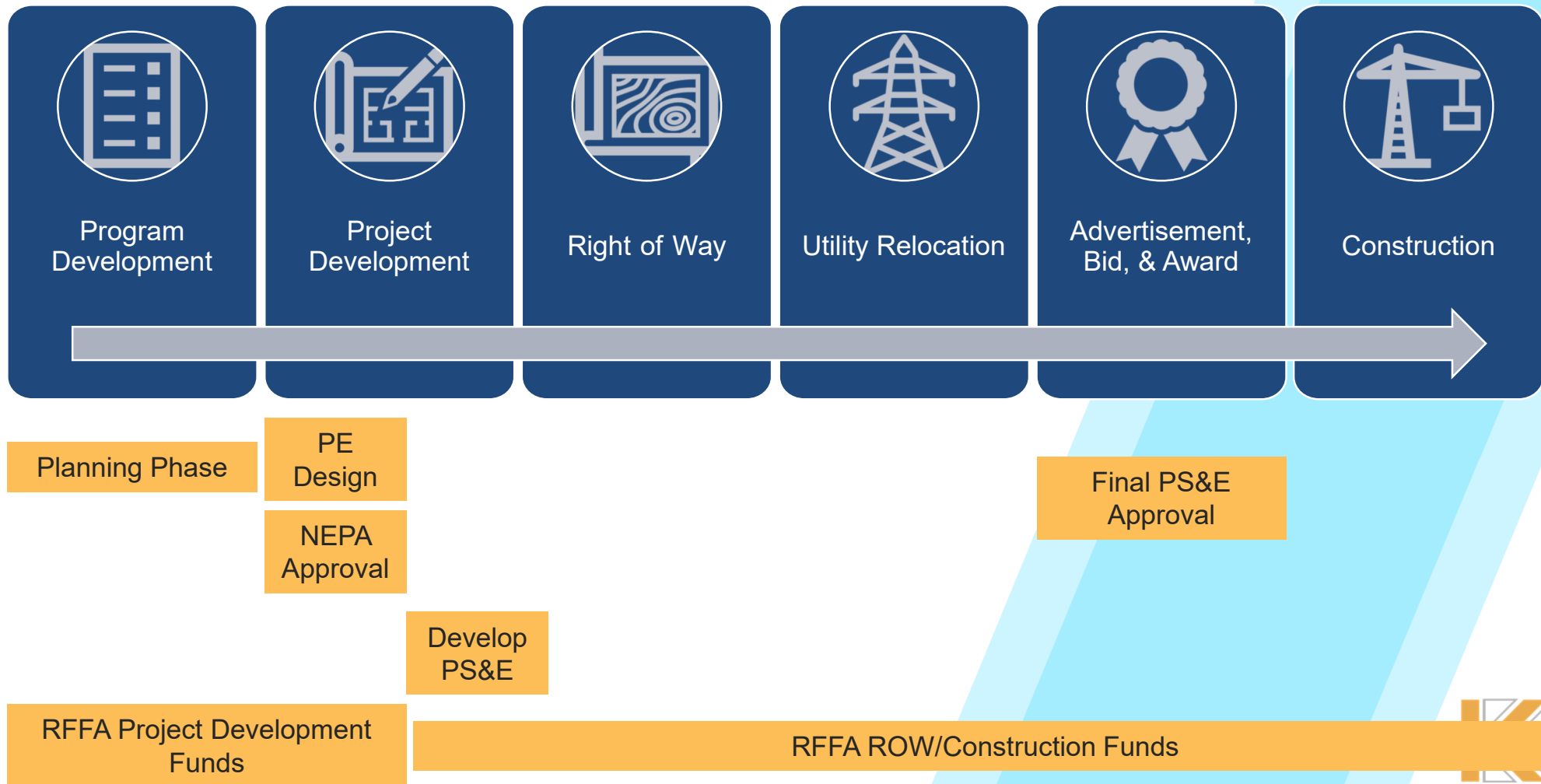


What is the Federal Aid Process?

- The Federal-Aid Highway Program supports State highway systems by providing financial assistance for the construction, maintenance and operations of roadways
- Set of procedures through which local governments can obtain federal funding for transportation infrastructure projects
- Non-certified agencies with ODOT-delivered projects are not sub-recipients of the FHWA federal aid.



Project Phases



Federal Aid Funding Options

An LPA delivers its own project through the certification program.

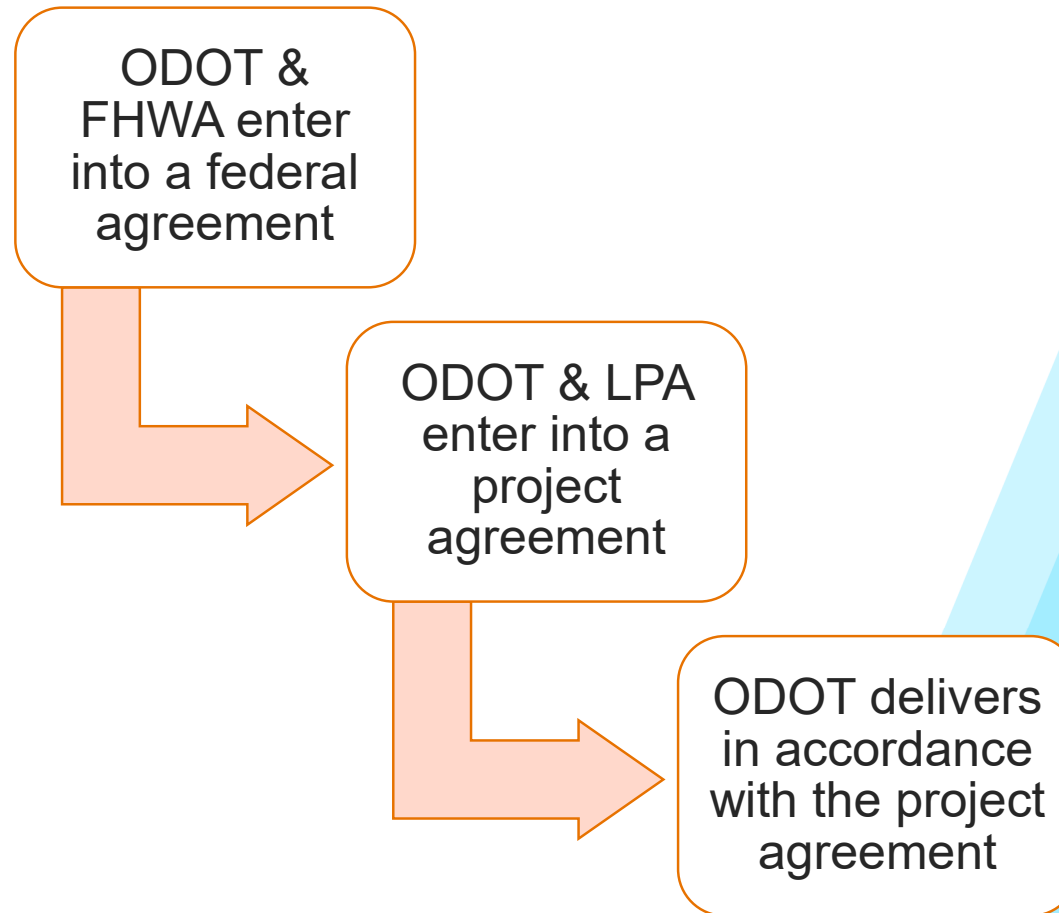
An LPA contracts with a Certified LPA to deliver the project.

An LPA exchanges federal funds for state funds and delivers its own project.

 An LPA contracts with ODOT to deliver the project.



Federal Aid Through ODOT



RFFA Requirements

- Submitted by eligible public agencies & tribal governments within the Portland region MPO
- Project is an eligible project type
 - Active Transportation
 - Transportation System Management and Operations
 - High Capacity Transit Expansion
 - Arterial Expansion, Improvements and Reconstruction
 - Regional Travel Options
 - Transit-Oriented Development
- Meets minimum funding requests
 - Project Development: \$700,000
 - ROW/Construction: \$4 million
- Included in 2023 RTP Constrained Project List

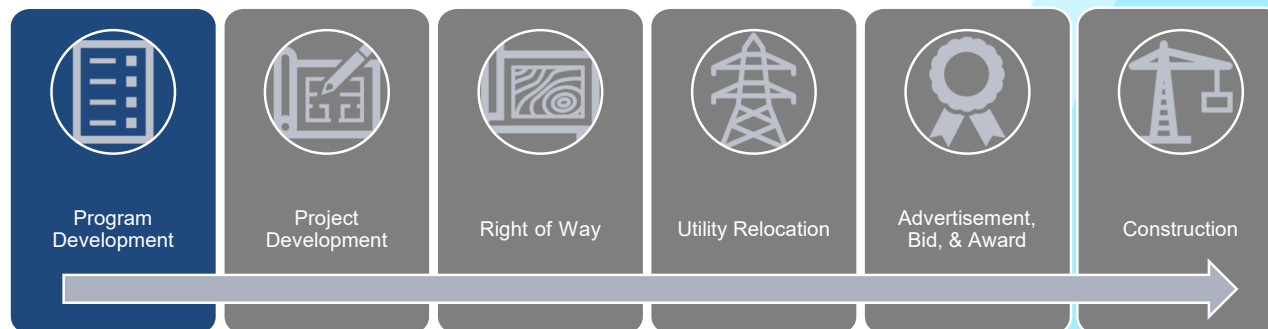


PROJECT PHASES



Program Development

- Scoping phase for the proposed project
- During this phase, projects may be accepted into the STIP
- **Key Requirements**
 - Technical Scoping Sheet
 - Scoping Package
 - Environmental Prospectus
 - FHWA Agreements



Scoping Package

- Defining the parameters of the project and the level of effort required in the various project delivery phases
- For federal-aid LPA projects that are funded through the local MPO, scoping is performed by the individual LPAs with assistance from the MPO
- See: Local Public Agency Federal Aid Project Scoping Checklist form 734-5293



Oregon Department of Transportation

LOCAL PUBLIC AGENCY (LPA) FEDERAL AID PROJECT SCOPING CHECKLIST (FOR USE IN SCOPING FEDERALLY FUNDED LOCAL PROJECTS)

TABLE OF CONTENTS

I. Form Information and Resources
 II. Project Location and Agency Information
 III. Project Purpose and Scoping Summary
 IV. Scoping Elements

PART I. FORM INFORMATION AND RESOURCES

Purpose of Form: **i**
 When to scope and why: **i**
 Outputs of Scoping: **i**
 Reference Documents: **i**

Initiation Date:
 Revision Date:

PART II. PROJECT LOCATION AND AGENCY INFORMATION

This section to be completed by project lead. **i**

• Project Lead would be the person leading the scoping effort. Be sure to list each of the different funding programs being applied for in the table below. Note that Non-certified LPAs are not authorized to deliver a federal aid project. The current process is for ODOT to outsource the project delivery. List each agency that has jurisdiction, ROW, easements, public access, or other rights within the project limits.

PROJECT NAME		ODOT REGION
PROJECT LEAD NAME	PHONE	WORK TYPE
AGENCY APPLYING FOR FUNDING		FUNDING PROGRAM BEING APPLIED FOR
AGENCY PROPOSED TO DELIVER PROJECT	PROPOSED DELIVERY AGENCY IS CERTIFIED IN FEDERAL AID PROJECT DELIVERY? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	APPLICANT HAS CONFIRMED DELIVERY AGENCY'S CAPACITY TO DELIVER IN TIMELINE REQUESTED? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown

Indicate any of the following preliminary reports and project related documents that are already developed or on-hand for the proposed project: **i**

Straight-line Chart Planning Documents (IAMP, AMP Corridor Studies, TSP, etc.)
 Highway Inventory Summary Milepost Log Site Maps
 As-Constructs Drawings Bridge Inspection report (If on the roadway network, can be requested by ODOT)
 R/W Maps Other:
 Photos Other:
 Other:

PART III: PROJECT PURPOSE AND SCOPING SUMMARY

A. Project Purpose and Need Statement

1. Define the problem **i**

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Local Agency Technical Scoping Sheet (731-5151)



- Describes the proposed project and serves as the support document for the FHWA authorization of federal fund
- Provides a schedule that indicates to ODOT and FHWA when the LPA anticipates obligating federal funding phases

LOCAL AGENCY TECHNICAL SCOPE SHEET
Part 1 of 2: Project Request

Sections 1-4 of this form replace Prospectus Part 1.

KEY NUMBER JURISDICTION

PROJECT STIP NAME REGION DISTRICT

ROAD/STREET NAME BRIDGE NO. CITY MPO UGB COUNTY FROM MP TO MP

HIGHWAY NUMBER HIGHWAY NAME URBAN/RURAL

ROUTE NUMBER N+S H+MS FC APPLICANT (IF OTHER THAN STATE) US REP OR SEN OR REP

COST ESTIMATES (X \$1,000)		PROJECT COMPONENTS	RIGHT OF WAY
Preliminary Engineering			Files (number)
Right of Way			Acres (number)
Utility Reimbursement			Acquisitions (number)
Planning			Easements (number)
Other			RELOCATIONS
CONSTRUCTION			Business (number)
Roadway			Residential (number)
Structures			
Signals			
Temp. Protect.			
Constr. Contingencies			
Constr. Engineering			
Detour			
Other			
Total CE and Construction			
Total Estimate			

PROJECT CATEGORIES

Environmental Classification (1,2,3,PCE)

Design Category

Work Classification

Primary STIP Work Type

ACCESS CONTROL

CURRENT PROPOSED

ADMINISTRATOR

CONSTRUCTED BY

Contract County Force

State Force City Force

Other:

Recommended bid date (Quarter-Year):

PE FUNDING PROGRAM	PE MATCH RESPONSIBILITY	R/W FUNDING PROGRAM	R/W MATCH RESPONSIBILITY
UR FUNDING PROGRAM	UR MATCH RESPONSIBILITY	CE-CN FUNDING PROGRAM	CE-CN MATCH RESPONSIBILITY
PL FUNDING PROGRAM	PL MATCH RESPONSIBILITY	OT FUNDING PROGRAM	OT MATCH RESPONSIBILITY

FUNDING NOTES

ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
Travel Lanes (number)			Average Daily Traffic		
Structures (number)			Year of ADT		
Signals (number)			Throughway?	<input type="checkbox"/>	<input type="checkbox"/>
Bikeway (number)					

Define the problem:

Describe proposed solution (attach vicinity map to this document):

PREPARED BY DATE OTC APPROVAL DATE PROGRAM YEAR FUNDING AMOUNT



Environmental Prospectus



- Recommends the preliminary NEPA classification for a project with a FHWA-nexus
- Provides the information necessary to determine if the project can be processed using ODOT's Programmatic Categorical Exclusion (PCE) Agreement
- Generally, the project team will prepare draft of the Environmental Prospectus; Region Environmental Coordinator (REC) will review and approve



Agreements

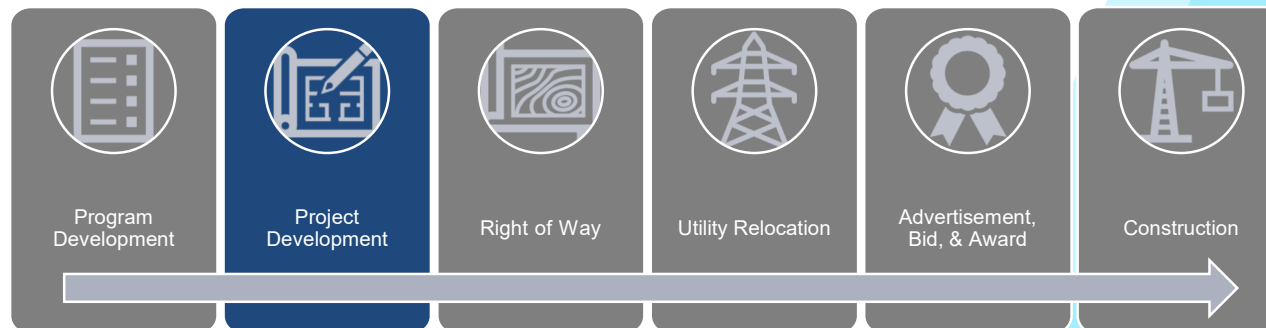


- The Federal-aid Highway Program allows LPAs to be reimbursed with federal funds for costs incurred on approved LPA projects.
- Agreements (contracts) must be executed and funding approval from FHWA received to reimburse an LPA for these costs.
 - Only certified agencies are reimbursed.
- An agreement can not be executed for federal obligation without a Technical Scope Sheet.



Project Development

- Projects with an approved Technical Scoping Sheet:
 - Are cleared for environmental impacts (NEPA approval)
 - Obtain necessary permits and agreements
 - Complete designs, specifications, schedules, and estimates.



Environmental



- National Environmental Policy Act (NEPA) is triggered for projects receiving FHWA Federal-Aid Funding
- NEPA typically serves as an “umbrella” process for meeting all environmental review requirements
- **Key Federal Aid Components**
 - NEPA Process Document
 - Environmental Impact Statement (EIS)
 - Environmental Assessment (EA)
 - Categorical Exclusion (CE) and Programmatic CEs (PCEs)
 - NEPA Approval

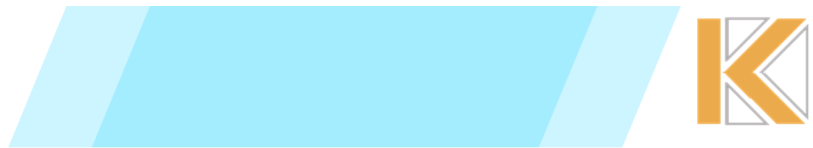




Environmental Approvals May Include:

Discipline	Required Process, Permit, Clearance, or Approval	Responsibility ¹
Right-of-Way	<ul style="list-style-type: none">• Issue Right of Entry permit for environmental studies• Prepare impact assessment and findings• After NEPA approval: Perform negotiations/acquisition process	<ul style="list-style-type: none">• ODOT/LPA/CONS• LPA/CONS• ODOT/LPA/CONS
Land Use	<ul style="list-style-type: none">• Prepare impact assessment and findings• Prepare Findings of Consistency with other plans• Obtain Goal Exceptions (when required)• After NEPA approval: Obtain local land use permits	<ul style="list-style-type: none">• LPA/CONS• LPA/CONS• LPA/CONS• LPA/CONS
Socio-economics	<ul style="list-style-type: none">• Prepare impact assessment and findings	<ul style="list-style-type: none">• LPA/CONS
Environmental Justice	<ul style="list-style-type: none">• Prepare impact assessment and findings• Coordinate with FHWA (if disproportionate impacts)	<ul style="list-style-type: none">• LPA/CONS• ODOT
CWA Section 404/ Wetlands/ Waters	<ul style="list-style-type: none">• Prepare impact assessment and findings• After NEPA approval: Obtain 404 Corps/DSL permit	<ul style="list-style-type: none">• LPA/CONS• LPA/CONS

¹Depends on who delivers the project.





Environmental Approvals May Include:

Discipline	Required Process, Permit, Clearance, or Approval	Responsibility
Water Quality	<ul style="list-style-type: none">• Prepare impact assessment and findings• After NEPA approval: Obtain DEQ certification permit• After NEPA approval: Prepare and submit Stormwater Plan to DEQ	<ul style="list-style-type: none">• LPA/CONS• LPA/CONS• LPA/CONS
ESA/T&E Species	<ul style="list-style-type: none">• Prepare impact assessment and findings• Propose ESA Effects Determination(s)• Use FAHP ESA programmatic agreement processes• If FAHP PA is unavailable, obtain Biological Opinion or other permit coverage (from NMFS/USFWS)	<ul style="list-style-type: none">• LPA/CONS• LPA/CONS/ODOT• LPA/CONS/ODOT• FHWA
NHPA Section 106 (Cultural Resources)	<ul style="list-style-type: none">• Obtain permits for surveys on federal/private lands• Perform field surveys, reconnaissance, research• Prepare impact assessment and findings• Make Determinations of Eligibility• Prepare Findings of Effect• Consult with SHPO for concurrence	<ul style="list-style-type: none">• ODOT• LPA/CONS• LPA/CONS• ODOT, for FHWA• ODOT, for FHWA• ODOT, for FHWA
Visual Resources	<ul style="list-style-type: none">• Prepare impact assessment and findings	<ul style="list-style-type: none">• LPA/CONS

¹Depends on who delivers the project.

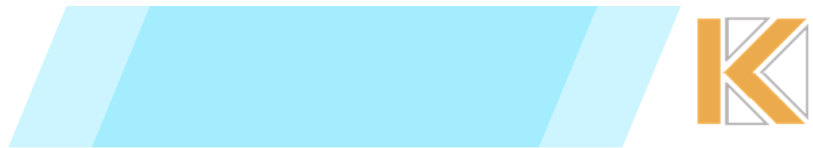




Environmental Approvals May Include:

Discipline	Required Process, Permit, Clearance, or Approval	Responsibility
Section 4(f)	<ul style="list-style-type: none">• Prepare impact assessment• Prepare appropriate Section 4(f) document• Concurrence on Section 4(f) considerations and any effects findings	<ul style="list-style-type: none">• LPA/CONS• LPA/CONS/ODOT• FHWA
Section 6(f)(3)	<ul style="list-style-type: none">• Prepare impact assessment and draft PD/ESF (NPS)• Survey and mapping• After NEPA approval: ROW negotiations/acquisitions• Obtain Section 6(f)(3) Conversion Approval from NPS	<ul style="list-style-type: none">• LPA/CONS• LPA/CONS• LPA/CONS• ODOT or LPA
Air Quality	<ul style="list-style-type: none">• Prepare impact assessment• Document regional conformity w/ MPO• Prepare project-level conformity analysis• After NEPA approval: Obtain Indirect Source permit if needed	<ul style="list-style-type: none">• LPA/CONS• LPA/CONS• LPA/CONS• LPA/CONS
Noise	<ul style="list-style-type: none">• Prepare impact assessment and findings• Perform noise study(s)• After NEPA approval: Perform surveys for recommended abatement	<ul style="list-style-type: none">• LPA/CONS• LPA/CONS• LPA/CONS

¹Depends on who delivers the project.

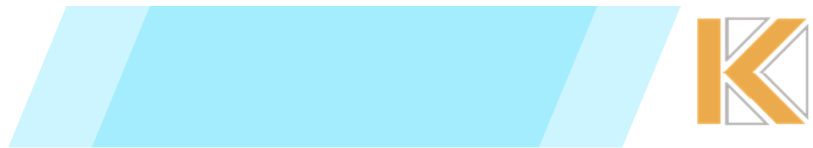




Environmental Approvals May Include:

Discipline	Required Process, Permit, Clearance, or Approval	Responsibility
Hazardous Materials	<ul style="list-style-type: none">• Prepare impact assessment and findings• Perform testing w/ findings, recommended further actions• After NEPA approval: Containment and cleanup plan(s)	<ul style="list-style-type: none">• LPA/CONS• LPA/CONS• LPA/CONS
Tribal Coordination	<ul style="list-style-type: none">• Tribal consultation and coordination	<ul style="list-style-type: none">• ODOT, for FHWA
Public Outreach	<ul style="list-style-type: none">• Stakeholder involvement• Public meetings and involvement	<ul style="list-style-type: none">• LPA/CONS• LPA/CONS
Environmental Commitments	<ul style="list-style-type: none">• Capture/document environmental commitments• Database entry and track environmental commitments	<ul style="list-style-type: none">• LPA/CONS• ODOT

¹Depends on who delivers the project.



Design

- **Key Federal Aid Components**

- **Design Guide:** Compliance with American Association of State Highway and Transportation Officials (AASHTO) guidelines
 - Compliance with ODOT's current Highway Design Manual for state highways
 - Compliance with current MUTCD Manual & Oregon addendum
 - Compliance with Oregon Bicycle & Pedestrian Design Guide
- **Value Engineering:** All ODOT Highway construction projects in the STIP shall be screened based upon established criteria to determine the need to conduct a formal Value Engineering Study.
- **ODOT Design Exceptions**
- **Standards:** Different standards apply to the design of:
 - New construction / reconstruction projects;
 - Resurfacing, restoration, and rehabilitation projects;
 - Low-volume local agency roadways (ADT less than 2000); and
 - Mobility projects.
- **PS&E Deliverable**



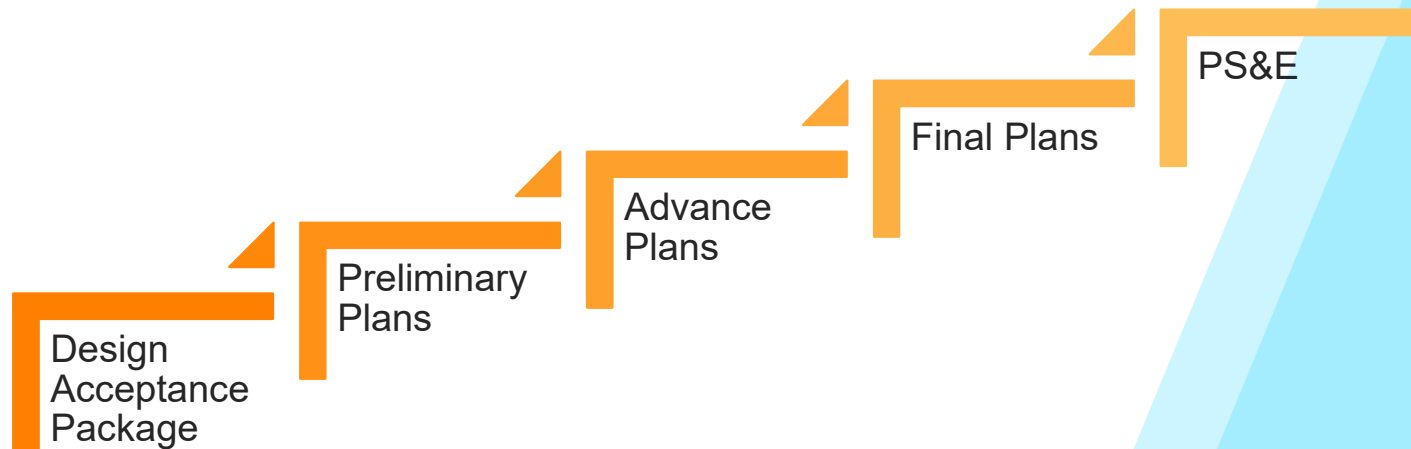
Design Categories



- **New Construction/Reconstruction:** Includes significant changes in cross section or shifts in both vertical and horizontal alignment (50% or more of the project length involves vertical or horizontal alignment changes)
 - State Highways: ODOT 4R standards in HDM
 - Other Roadways: AASHTO A Policy on Geometric Design of Highways and Streets
- **Resurfacing, Restoration, and Rehabilitation**
 - State Highways: ODOT 3R standards in HDM
 - Other Roadways: ODOT 3R or AASHTO
- **Low Volume Local Roads:** ADT<2000 and 'local road' designation
 - AASHTO Guidelines for Geometric Design of Low-Volume Local Roads manual.



Design Approval Process



Design Acceptance Package



- The **Design Acceptance Package (DAP)** is a critical milestone
 - Establishes the geometric boundaries of the project footprint
 - Provides the basis for conducting NEPA studies
 - Identifies any right of way that may be needed
 - Provides for a more reliable update to the project scope, schedule, and budget.
- Occurs at end of initial design phase (30%-60% design detail)
- Includes
 - Traffic data
 - ROW
 - Horizontal & vertical alignment
 - Typical sections
 - Preliminary cost estimate
 - Design exceptions
 - Mobility



Preliminary Plans



- The **Preliminary Plans** is an additional technical and construction review between the DAP and Advance plans
 - May be omitted for less complex projects
 - 70% complete design plans
- Includes
 - Noise mitigation final design
 - Utility test-hole excavation
 - Preliminary plans
 - Updated cost estimate
 - Updated schedule



Advance Plans



- The **Advance Plans** is a key step of the contract documents which requires all project disciplines to review draft contract documents
 - Quality control review of the project PS&E
 - 90% complete
- Includes
 - Incorporation of DAP and preliminary plan review comments
 - Advanced project plans
 - Approved utility relocation plans
 - Final hydraulics report
 - Final stormwater report
 - Final geotechnical report
 - Roadside inventory
 - Revised project construction cost estimate
 - Advanced special provisions
 - Pavement design
 - Revised construction schedule
 - Approved design exceptions
 - Traffic Control Plan Design
 - Letters of public interest findings and exemption orders



Final Plans



- The **Final Plans** is the follow-up and review on advance plans
 - Last opportunity for review before PS&E
 - Amend the contract to include Contract Administration/Construction Engineering Inspection (CA/CEI) Services during construction.
- Includes
 - Incorporation of advance plan review comments
 - Final plans, special provisions and cost estimate
 - Final construction schedule
 - Final insurance risk assessment (when on or along a state facility)
 - Final Mobility Consideration Checklist form 735-9983 (when impacting a state facility)
 - Draft PS&E Submittal & Completeness Checklist
 - Final documents required for PS&E submittal.
 - Approved Design Exceptions, including any ADA-related design exceptions



PS&E Checklist Submittal

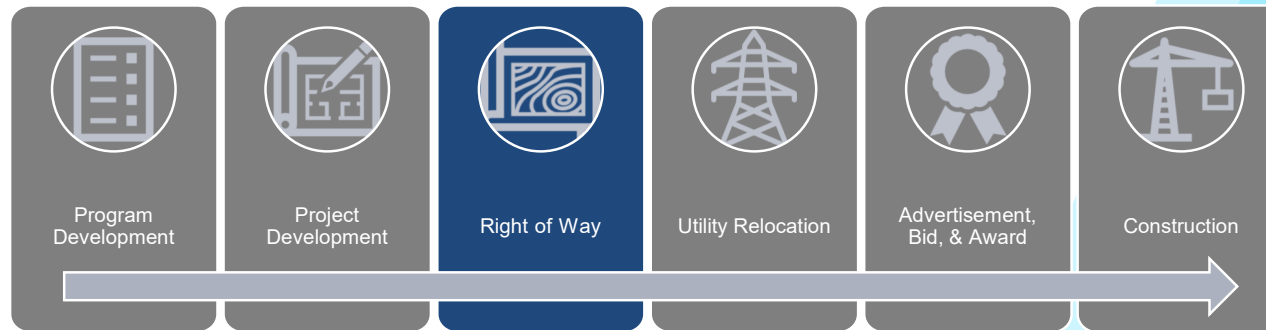


- The **PS&E Submittal Plans** are the final construction documents for bid
- Includes
 - Design plans
 - Completed environmental documentation
 - General conditions, specific provisions, and bid book
 - PS&E cost estimate
 - ROW certification
 - Utility certification
 - Railroad agreement assurance form
 - PS&E submittal & completeness checklist
 - Bid Book Approval from Office of Civil Rights



Right-of-Way

- Right-of-way may include the purchase of property or land use agreements that is needed to construct the project.
 - If any right-of-way is needed for the project, it must be acquired in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 Uniform Act



Right-of-Way



- **Key Federal Aid Components**

- Follow Uniform Relocation Assistance and Real Property Acquisition Policy Act of 197
 - Intergovernmental Agreement and Right of Way Services Agreement must be executed, regardless of the need for right of way acquisition in the respective project
 - Right of Way Services Agreement
 - Estimate of probable costs and expenses by file
- Right of Way Certification
- Appraisal
- Title
- Negotiations

- **Timeline:** Generally an 18-month process, must be complete to submit PS&E

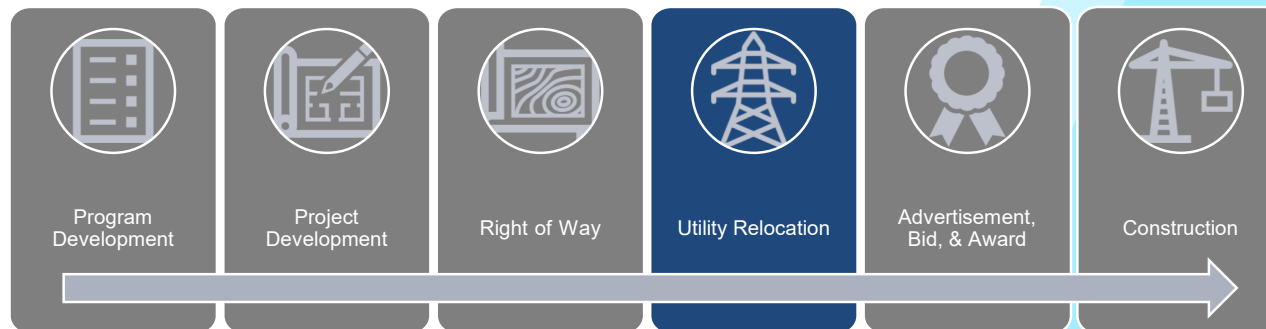


Utility and Railroad



- **Key Federal Aid Components**

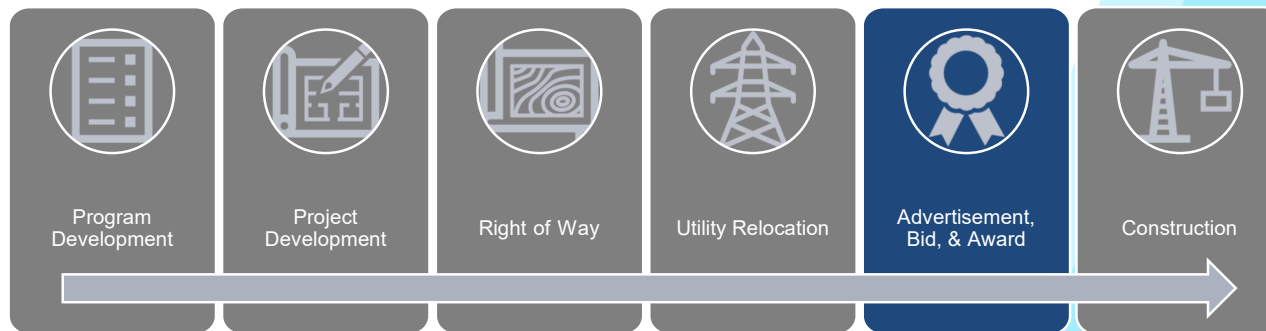
- Utility relocations, adjustments and reimbursement policy requirements are defined in the Code of Federal Regulations 23 CFR 645A and OAR 734-055
 - Same for state and federal funding
- Projects within 500 ft of a railroad likely require railroad coordination (confirm with state rail liaison); Coordination may include:
 - Rail crossing order
 - Railroad engineering approval
 - Easement acquisition
 - Railroad flagger



Advertisement, Bid, & Award

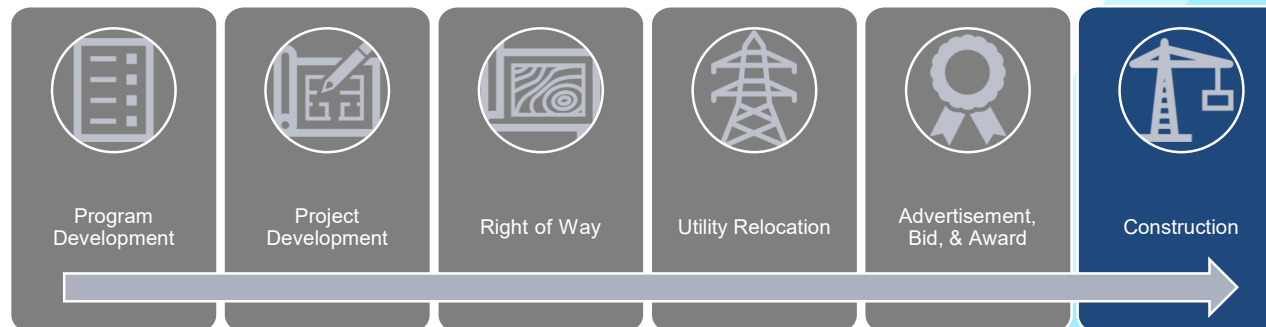


- Approval of PS&E documents
- ODOT or certified LPA procures project for non-certified LPAS
- Must meet advertisement, bid, & award procedures and requirements
- Minimum advertisement time is three weeks; generally a six week process
- Include additional time for preparation of materials



Construction

- Physical construction by the contractor and administration of the contract and quality assurance by ODOT/certified LPA
- **Key Federal Aid Components**
 - Compliance with non-Title 23 requirements and selected Title 23 requirements
 - Compliance with construction administration procedures



KEY BUDGET CONSIDERATIONS



Federal Aid Budget Considerations

- **Project management:** Non-certified agencies will need to have the project budget provide reimbursement to their project delivery agency (ODOT or another certified agency).
- **NEPA:** Process costs and project mitigation design elements
- **Design:** Bid document deliverables
- **Federal ROW:** Procedural and cost requirements
- **Construction engineering and traffic management requirements**



Budget Levels

Project Development Phase	Planning Level	Concept Development	Preliminary Engineering (DAP)	PS&E
Project Definition	Planning level concept, identify project needs	<ul style="list-style-type: none"> Refine project needs, identify design criteria Defined SOW 	Based on preferred alternative from EIS or defined from SOW	Final engineering, permits, and specifications
Existing Conditions	No field survey	Field topographic survey	Full topographic survey	<ul style="list-style-type: none"> Full topographic survey Geotechnical work completed
Engineering Level	0-10%	10-30%	30-60%	60-100%
Engineering Risk	Highest	Medium	Low	Low
Cost Estimate	Rough order of magnitude estimate; backup info needed	Concept design level cost estimate; backup info needed	More developed with separated quantity takeoffs	Detailed PS&E cost estimate



Budget Levels

Project Development Phase	Planning Level	Concept Development	Preliminary Engineering (DAP)	PS&E
Design Allowance	20-40%	20-30%	5-20%	5-10%
Construction Change Order	5-10%	5-10%	5-10%	5-10%
Engineering Risk Allowance	5-20%	5-15%	5-10%	5%
ROW Costs	Estimated using tax lots/GIS; buffer	Estimated using tax lots/GIS; reduced buffer	Costs defined and acquisition started	Costs well-defined and acquisition mostly complete
Metro Admin	2%	2%	2%	2%
PE & Environmental	5-15%	5-15%	NA, assume complete	
Final Design	10-15%	10-15%	10-15%, per CE	NA, in progress
Permitting	Costs for permits should be defined and captured within IGA			
Construction Management	10-20%	10-20%	10-20%	10-20%



Escalation Recommendations

- While we can't predict the future, it's important to build escalation into project costs
- Provided values are based on those used by ODOT
- Recommendation to assume a 2029 or 2030 year for all project development phases, as a conservative approach

Year	2017 Baseline	2024 Baseline
2017	1	
2018	1.0487	
2019	1.0708	
2020	1.0777	
2021	1.1849	
2022	1.3044	
2023	1.3491	
2024	1.3635	1
2025	1.3978	1.0252
2026	1.4471	1.0613
2027	1.494	1.0957
2028	1.5442	1.1325
2029	1.5935	1.1687
2030	1.6454	1.2067
2031	1.7012	1.2477
2032	1.7609	1.2915

