

New Jersey Department of Transportation

Project Delivery Process Overview

Program Management Office

January, 2012

Today's Objectives

- *Clarify the Project Delivery Process (PDP)*
 - *What is it?*
 - *Why did it change?*
 - *How were the changes determined?*
 - *How was it approved?*
- *Show you where to get guidance*
- *Answer Frequently Asked Questions*

PDP Purpose

- *Regulatory Compliance*
- *Access to Funds*
- *Consistent and Predictable Performance*
- *Quality Results*

Why Change

- *Align with FHWA Regulations*
- *Reduce design re-work*
- *Ultimately:*
 - *Produce more with available funds*
 - *Reduce number of design changes*
 - *Reduce impact of changes*
 - *Improve relationship with FHWA*

How Accomplished

Improved Performance and Efficiency

- *Approved Quality Management Plan*
- *Scope Statements*
- *Interactive Communications*
- *Design Communications Report*

Results

- *Achieved Regulatory compliance*
- *Design accountability*
- *Consistent execution*
- *Fewer scope changes*

Critical Success Factors

Key Work Products and Milestones

- *Comprehensive Scope Statements*
- *NEPA Classification identified in CD*
- *Ensure the design addresses the Purpose and Need*
 - *PPA in CD, APP in PE, Contract Documents in FD*
- *Environmental Document and Design Exception Report approved in PE*
- *Designer selected in CD for PE, FD and Construction*
- *ROW acquired in FD*

Critical Success Factors

Methods

- *Clear Communication/Interactive Communications*
- *Clear and consistent guidance*
- *Teamwork across the organization*
- *Project Team accountability*
- *Appropriate project customization*
- *The right people at Core Group meetings
authorized to make decisions for the Department*

Effects on Existing Projects

- *Program Managers decided which approach to take on a project-by-project basis*
 - *Some projects phased into new process*
 - *Some stayed old, some went all new*
- *List of projects available on CPD website*

Capital Project Delivery Phases

- *Problem Screening*
- *Concept Development*
- *Preliminary Engineering*
- *Final Design*
- *Construction*

| | Problem Screening | Concept Development | Preliminary Engineering | Final Design | Construction |
|---------------------------|--|---|--|---|--|
| Funding | Planning Funds | Planning Funds | Preliminary Engineering Authorization | Final Design Authorization ROW/Utility Authorizations | Construction Authorization |
| Key Tasks | Conduct Tier 1 Screening Subject Matter Expert Review Check NJDOT Management Prioritize Problem Statement Conduct Tier 2 Screening Validate Problem Recommend Preliminary Scope CPC Approval and Assignment | Conduct Data Collection Evaluate Deficiencies and Identify Fatal Flaws Evaluate Planning Alternatives Coordinate with Stakeholders Complete Environmental Screening Assess Right of Way (ROW) and Access Impacts Determine Preliminary Preferred Alternative (PPA) Identify Substandard Design Elements Determine Environmental Document Prepare Construction Cost Estimate Select Designer | Coordinate with Stakeholders Conduct Environmental Analysis PPA Initiate Roadway Engineering Initiate Structural Engineering Initiate ROW and Access Initiate Utility Engineering Prepare Final Design and Construction Cost Estimate Manage Project Contracts | Manage Project Communication Complete Roadway Engineering Complete Structural Engineering Complete ROW and Access Complete Utility Engineering Complete Environmental Document Prepare Final Design Submission Certify Construction Contract Documents Manage Project Contracts | Advertise for Bids Award Project Conduct Construction Startup Conduct Mobilization Manage Construction Changes Conduct Construction Operations Complete Construction Closeout Project |
| Public Involvement | Obtain MPO Approval and Input | Execute Public Involvement Plan | Execute Public Involvement Plan | Execute Public Involvement Plan | Keep Public Informed Maintain Community Support |
| Key Products | Problem Statement Validation Tier 1 Documentation Tier 2 Screening Report Charter Proposed Project Assignment | Design Communications Report Concept Development Report Purpose and Need Statement Preliminary Preferred Alternative Environmental Document Classification Preliminary Engineering Statement | Design Communications Report Preliminary Engineering Report Approved Environmental Document Approved Design Exception Report Cost Estimates (Final Design Construction) Approved Project Plan Final Design Scope Statement | Design Communications Report Environmental Reevaluation Permits Access Permits Acquisition of ROW Construction Contract Documents Supporting Agreements | Design Communications Report Completed Project As-Builts Closeout Documentation |
| | Division of Capital Investment & Division of Project Management | Division of Project Management | Division of Project Management | Division of Project Management | Division of Project Management and Division of Construction Services and Materials or Operations |

Project Delivery Process

Old

New

Approx. 5 Years

| |
|---|
| Project Screening (3-4 Months) |
| Concept Development (6-12 Months) |
| Feasibility Assessment (6-12 Months) |
| Preliminary Design (12-18 Months) |
| Final Design (9-12 Months) |
| Construction (Varies) |

| |
|--|
| Problem Screening (3-4 Months) |
| Concept Development (6-24 Months) |
| Preliminary Engineering (1-18 Months) |
| Final Design (12-24 Months) |
| Construction (Varies) |

Approx. 5 Years

Problem Screening Objectives

- *Make sure the problem is properly understood and documented*
- *Screening consistent with Statewide Capital Investment Strategy*
<http://www.state.nj.us/transportation/capital/cis>
- *Ensure all work is properly authorized before work starts*
 - *Capital Program Committee Approval*
 - *Maintenance work order*
- *Make sure that the problem is advanced along the proper path*

Problem Screening Key Products

- *Tier 1 Screening Documentation*
 - *Problem Statement Assessment*
- *Tier 2 Screening Report*
 - *Verify the magnitude of the problem*
 - *Preliminary Scope of Work recommendation*
- *Charter*
 - *Justification and objectives*

Problem Screening

What's New

- *Creation of a Charter*
- *Approval by the CPC to advance*
- *If a project is advanced, it will either go directly to Maintenance or Concept Development.*
 - *No Pipeline Assignment*
 - *No skipping to PE or FD*

Problem Screening

Who's Involved

- *Capital Investment Strategies*
- *Project Management*
- *Subject Matter Experts*

Concept Development Objectives

- *Complete Purpose and Need Statement*
- *Select a Preliminary Preferred Alternative (PPA)*
 - *Identify and analyze reasonable alternatives*
 - *Obtain stakeholder buy-in*
- *Obtain approval to proceed*
- *Procure a Designer for future phases of work*

Concept Development Key Products

- *CD Scope Statement*
 - *Based on Work Breakdown Structure (WBS) and network activities*
 - *Used in developing Schedule, Budget and Designer Fee Proposal*
- *Purpose and Need Statement*
- *Preliminary Preferred Alternative (PPA)*

Concept Development Key Products

- *Public Involvement Action Plan (PIAP)*
- *CD Report*
- *Design Communications Report*
- *PE Scope Statement*
- *PE Schedule and Budget*
- *CD Quality Management Certification*
- *Consultant Agreement*

Concept Development

What's New

- *PM prepares CD Scope Statement*
- *Designer updates Design Communications Report as required*
- *PM approves Design Communications Report updates*
- *Designer and PM complete the Complete Streets Checklist*
- *Initially Preferred Alternative (IPA) is now called the Preliminary Preferred Alternative (PPA)*
- *NJDOT VE Unit prepares a VE Technical Report, if applicable*
- *PM prepares a Railroad Agreement, if applicable*
- *Designer prepares Hydrologic and Hydraulic (H&H) Analysis, if applicable*

Concept Development

What's New

- *Designer conducts Scour and Seismic Retrofit Analysis, if applicable*
- *Designer conducts ITS Needs Assessment*
- *Designer performs storm water management analysis, if applicable*
- *Designer conducts soil testing for Stormwater Compliance, if applicable*
- *Bureau of Construction Management reviews PPA*
- *Designer prepares Systems Engineering Review Form (SERF), if applicable*
- *PM prepares PE Project Management Plan*
- *Designer prepares CD Quality Management Certification*
- *PM approves CD Quality Management Certification once CPC approves project*

Concept Development Who's Involved

- *Project Management*
- *Designer*
- *Subject Matter Experts*
- *FHWA*

Preliminary Engineering Objectives

- *Obtain an approved Environmental Document*
- *Obtain an approved Design Exception Report (if required)*

Preliminary Engineering Key Products

- *Approved Environmental Document*
- *Approved Design Exception Report (if required)*
- *Approved Project Plan*
- *PE Quality Management Certification*
- *PE Report*
- *Final Design Scope Statement*
- *FD Schedule and Budget*

Preliminary Engineering

What's New

- *Designer updates Design Communications Report as required*
- *PM approves Design Communications Report updates*
- *Designer and PM complete the Complete Streets Checklist*
- *Designer and PM hold a Diagnostic Team Meeting, if applicable*
- *Designer prepares a ROW Report*
- *Designer prepares PE Quality Management Certification*
- *PM approves PE Quality Management Certification*

Preliminary Engineering

What's New

- *PM updates Project Management Plan*
- *Designer prepares a PE Report*
- *FHWA approves the Environmental Document with the PE Report*
- *Design Exceptions and the Environmental Document must be approved before proceeding to FD*
- *The Approved Project Plan is the approved PPA (24" x 36" plan sheets)*
- *No more Preliminary Design Checklist*
- *No more mandatory Interim Design Submissions*

Preliminary Engineering

Who's Involved

- *Project Management*
- *Designer*
- *Subject Matter Experts*
 - *BLAES*
 - *Quality Management Services*
 - *Others as needed*
- *FHWA*

Final Design Objectives

- *Obtain the ROW*
- *Obtain required authorizations and approvals*
- *Complete the contract documents*
- *Obtain Authorization to Advertise*

Final Design Key Products

- *Environmental Reevaluations*
- *Environmental Permits, Licenses and Plans*
- *Certifications and Clearances*
- *Acquired ROW*
- *FD Submission*
- *PS&E Submission*
- *Quality Management Certifications*
- *Authorization Package for Advertisement*

Final Design What's New

- *Designer updates Design Communications Report as required*
- *PM approves Design Communications Report updates*
- *Designer prepares FD Submission Quality Management Certification*
- *Designer prepares PS&E Submission Quality Management Certification*

Final Design

What's New

- *PM approves FD Submission and PS&E Submission Quality Management Certifications*
- *Most or all of a project's design will occur in FD*
- *No more Final Design Checklist*
- *No more mandatory Interim Design Submissions*
- *FD ends once Authorization to Advertise is received*

Final Design

Who's Involved

- *Project Management*
- *Designer*
- *Subject Matter Experts*
- *FHWA*

Construction Objectives

- *Advertise and Award the project*
- *Construct the project*
- *Close the project*

Construction Key Products

- *Advertising Package*
- *Awarded Contract*
- *Working Drawings*
- *Change Requests*
- *Contractor Claims*
- *Agreement Closeouts*
- *Final Audit*

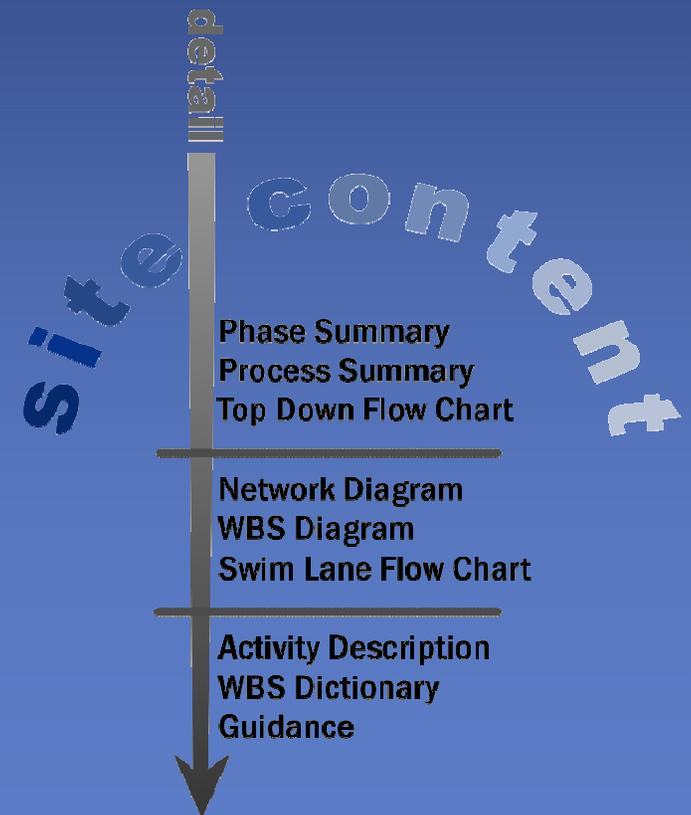
Construction Who's Involved

- *Construction Management*
- *Procurement*
- *Project Management*
- *Regional Construction*
- *Contractor*
- *Designer*
- *Subject Matter Experts*

Guidance Hierarchy

Summary vs. Detailed

- *Project Delivery Process Summary*
- *Phase, Process and Service Areas*
- *Diagrams and Descriptions*
- *Templates, Checklists, etc.*



Pipelines?

- *Purpose of the Pipelines*
- *Lessons Learned*
 - *Problems*
 - *Solutions*
- *Replaced by project specific Network Diagrams*
- *Anticipated Changes*



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| Engineering | In the Works | Capital Program | Freight, Air and Water | Doing Business |



Overview

- Site Content
- What's New
- ★ Training
- Frequently Asked Questions
- Project Delivery Process and Phases
- Process Summaries
- Flow Charts
- Diagrams
- Activity Descriptions
- Guidance
- Templates
- Glossary
- Best Practices
- Helpful Links
- Contact Us

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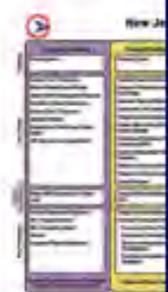
All information on this Web site regarding the New Jersey Department of Transportation

Capital Project Delivery

Overview

The New Jersey Department of Transportation (NJDOT) effectively and efficiently managing its transportation [Problem Screening Phase through Construction](#). NJDOT improves, updates, and streamlines project management processes to ensure delivery of quality transportation

The Capital Delivery (CPD) Web site established a consistent method for delivery of NJDOT capital projects. The [Final Design Implementation Plan](#) (pdf 135k) provides direction on how to apply the Final Design process to projects that were initiated using the former project delivery process. The [Project Delivery Process Project Customization Guideline](#) (pdf 392k) provides information on how to customize this method to use on individual projects. Following procedures and having access to supporting documents allows for communication between all stakeholders and ensures and secondary, internal and external agencies have information they need to guide them toward the right



Project Delivery

- Americans with Disabilities/Section 504
- Audit
- Before You Dig
- Capital Project Delivery**
- Civil Rights / Affirmative Action
- Design Services
- Directory
- Highway Access Permits
- Local Aid & Economic Development / Grants
- Outdoor Advertising
- Permits Information
- Planned Advertisements (six-months)
- Procurement
- Right of Way
- Food, Gas, Lodging and Tourism Signs
- Traffic Camera Video Log Request
- Transport Software
- Vendor Help
- Wireless Permits

Frequently Asked Questions

- *Why did the PMO change the Project Delivery Process?*
- *Who was involved in developing the new Project Delivery Process?*
- *How was FHWA involved in revising the Project Delivery Process?*
- *Why was ROW acquisition moved to FD?*
- *Why does the schedule template show such a long duration?*

Frequently Asked Questions

- *Why was Preliminary Design (PD) changed to Preliminary Engineering (PE)?*
- *Why were the activity numbers renumbered?*
- *Why were the activity descriptions rewritten?*
- *What is the Work Breakdown Structure (WBS) and what is a WBS element?*
- *What happened to the PD Submission?*
- *What's a Design Communications Report (DCR)?*
- *What engineering work gets done in PE?*

Frequently Asked Questions

- *Do we need CPC approval to enter FD?*
- *Where do I get additional Project Delivery Process Guidance?*
- *Why do I need to go back to the website to get a new template or form?*
- *What's a Charter?*
- *What happened to the FD Submission Checklist?*

Questions for You

- *Are there areas of nonexistent or insufficient guidance?*
- *What is working with the new process?*

Questions and Comments