Developing Scope of Services for **Concurrent PD&E and Design Phases**

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Purpose of the Training

How to create Scope of Services for a project with concurrent PD&E and Design phases (where **both** phases are procured in **one** contract)

Concurrent PD&E and Design Phases Standard SOS

Presentation Outline

- Project Delivery Process for Concurrent Phases
- Standard Scope of Services for Concurrent PD&E and Design
- Staff Hour Estimates and Staff Hour Estimates Guidelines updates
- Tools and Guidance

Project Delivery Process for Projects with Concurrent PD&E and Design Phases

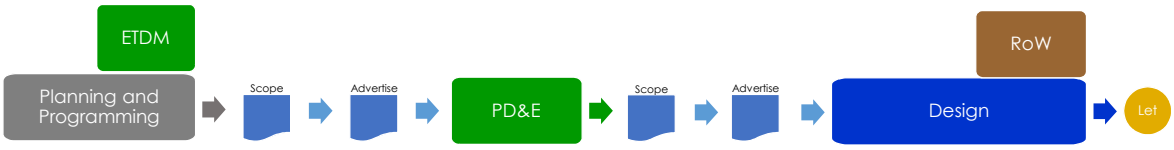
Concurrent Phases…What does this mean?

Concurrent Phases means both PD&E and Design phases are procured in one Contract—i.e. ONE contract with both PD&E study and Design services

Concurrent Phases also means Combined Phases (PD&E Study is combined with Design services) in ONE contract

Concurrent Phases is NOT a PD&E Study with an option for Design services

Traditional Project Delivery Process

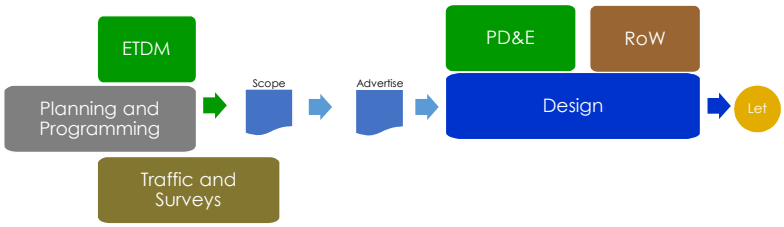


Pre-Construction phases are completed in series

Some PD&E activities are repeated during Design

Some PD&E activities should have been done in Planning

Concurrent Phases Project Delivery Process

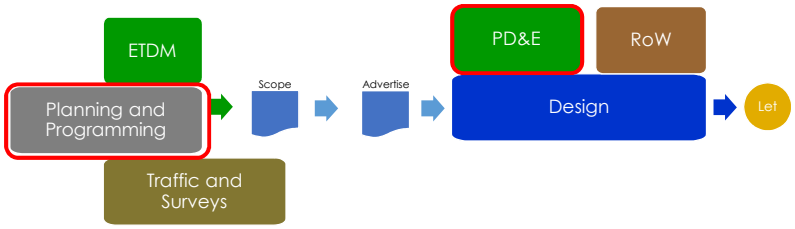


Pre-construction phases are performed concurrently to accelerate project delivery

However, there are some risk if not done properly

- ⚠ **Scope**
- ⚠ **Schedule**
- ⚠ **Cost**

Concurrent Phases Project Delivery Process



PD&E Phase and Design Phase MUST be funded concurrently (in the same year)

FINAL Design (Phase III and Phase IV) WILL START only after NEPA Approval

Does FHWA Allow Concurrent Phases in the Project Delivery Process?

- ✓ Supported by FHWA's **Every Day Count initiative** and **SHRP 2** program
- ✓ Allowed by **FHWA Policy on Permissible Project Related Activities During the NEPA Process**, FHWA Order 6640.1A
- ✓ Allowed by **23 CFR 771.113(a), Timing of NEPA Approvals**


Both PD&E and Design are funded by FHWA's PE funds

Preliminary Design Activities can be performed concurrently with NEPA; **However** Final Design Activities MUST NOT proceed until the NEPA has been approved

NEPA Approval and Concurrent PD&E and Design

23 CFR §771.113 Timing of Administration activities
(a) The lead agencies, in cooperation with the applicant and project sponsor, as appropriate, will perform the work necessary to complete the environmental review process. This work includes drafting environmental documents and completing environmental studies, related engineering studies, agency coordination, public involvement, and identification of mitigation measures. Except as otherwise provided in law or in paragraph (d) of this section, **final design activities, property acquisition, purchase of construction materials or rolling stock, or project construction must not proceed until the following have been completed**:
(1)(i) The Administration has classified the action as a CE;
(ii) The Administration has issued a FONSI; or
(iii) The Administration has issued a combined final EIS/ROD or a final EIS and ROD;

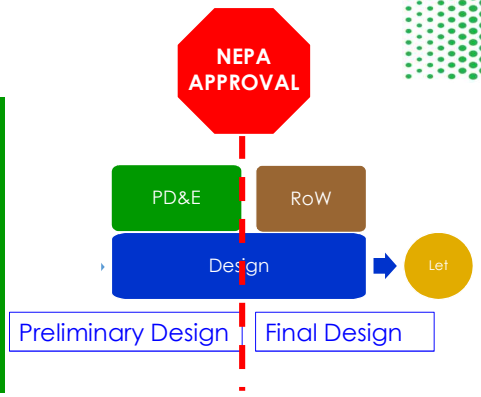
STOP **DO NOT PROCEED PAST PHASE II (60%) BEFORE NEPA APPROVAL**

Preliminary Design and Final Design Activities

Preliminary and Final Design are defined at 23 CFR § 636.103

(1) Final design means any design activities following preliminary design and expressly includes the preparation of final construction plans and detailed specifications for the performance of construction work.

(2) Preliminary design defines the general project location and design concepts. It includes, but is not limited to, preliminary engineering and other activities and analyses.



FHWA Order 6640.1A directs that State DOTs and other contracting agencies may perform preliminary design activities prior to a NEPA decision regardless of the project delivery mechanism that is used. However, final design activities may not be advanced until a NEPA decision has been issued.

Applies to Federal Actions

Preliminary Design and Final Design Activities

Table 301.2.1 Summary of Phase Submittals

Provide the sheets listed as applicable.

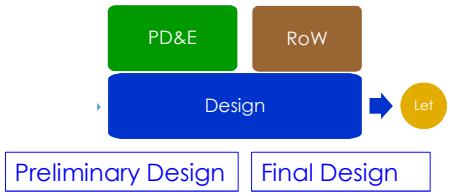
ITEM	PHASE I	PHASE II*	PHASE III	PHASE IV
Key Sheet	P	P	C	F
Signature Sheet		P	C	F
Summary of Pay Items		P	C	F
Drainage Map	P	P	C	F
Interchange Drainage Map	P	P	C	F
Typical Section	P	C	C	F
Summary of Drainage Structures		P	C	F
Optional Materials Tabulation		P	C	F
Project Layout	P	C	C	F
Project Control	P	C	C	F
Roadway Plan-Profile	P	P	C	F
Traffic Monitoring Site		P	C	F
Special Profile	P	P	C	F
Back-of-Sidewalk Profile	P	C	C	F

Preliminary Design Activities

Status Key: P - Preliminary C - Complete but subject to change F - Final

Projects with NO Federal Action

Environmental Review process involves preparation of a State Environmental Impact Report (SEIR)



SEIR APPROVAL

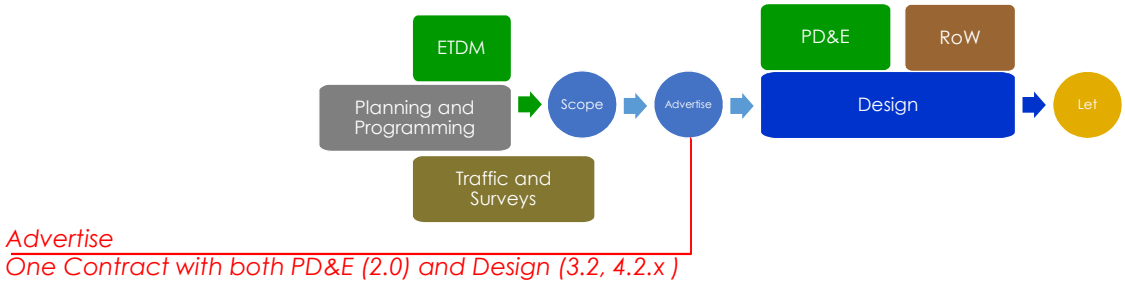
- There is **no limitation** to the level of design plans which may be completed concurrently with a SEIR.
- Consider risk associated with advancing final design activities with a SEIR if a federal permit is involved

Contracting Methods for PD&E and Design Projects

Four options that Districts can procure PD&E

- Standalone PD&E followed by a standalone Design
- Dual procurement of PD&E and Design phases
  - One contract for PD&E with an option for Design;
  - Two overlapping contracts that overlaps or let simultaneously
  - One Contract with both PD&E and Design funded together

Concurrent Phases Project Delivery Process



NEPA APPROVAL

Contract agreement, scope of services and schedules for federal projects with Concurrent PD&E and Design phases MUST indicate that **NO FINAL DESIGN ACTIVITIES WILL PROCEED BEYOND PHASE II Plans WITHOUT NEPA APPROVAL**

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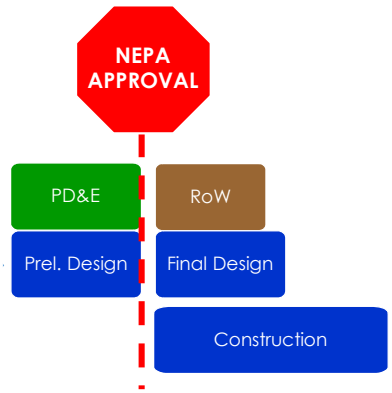
Concurrent Phases Work in Design Build Projects

Concurrent Preliminary Design and NEPA could prepare Design Build RFP.

If NEPA is part of the RFP, **Requirements of 23 CFR 636** must be met

- Design-Build contract must have a termination clause if the No-Build Alternative is selected after NEPA Analysis
- Design-Build firm must not prepare the NEPA document



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Benefit of Concurrent Phases Project Delivery Process

Streamlining project activities in pre-construction phases will

- Identify issues earlier through cross-functional reviews
- Eliminate redundancy or rework of project activities
- Eliminate Irrelevant project activities

…while meeting legal and regulatory requirements

Standard Scope of Services for Projects with Concurrent PD&E and Design Phases

Need for Standard Scope for Concurrent PD&E and Design

The most dangerous kind of waste is the waste we don't know.

by Shigeo Shingo

Need for Standard Scope for Concurrent PD&E and Design

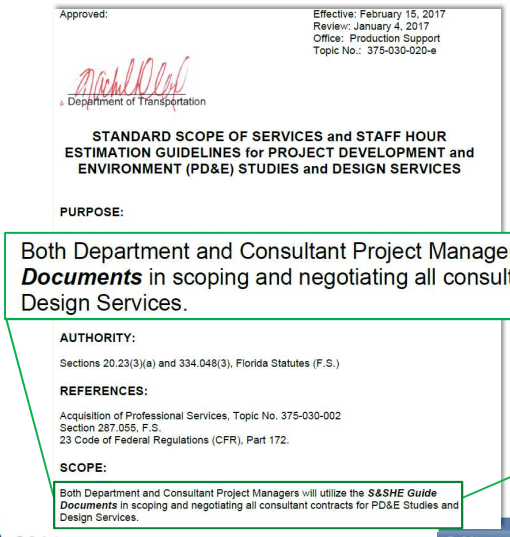
2014 Statewide Acceleration Transformation or SWAT initiative recommended performing PD&E and Design phases concurrently.

2013 Similar streamline efforts were recommended by District 4 as part of SHRP 2 C19 and District 4 PD&E process review

FDOT Districts **have since completed (or are completing) several projects** with concurrent phases

There's NO Standard Scope of Services for projects with concurrent phases

Why Standard Scope of Services is Needed?



Approved:

Effective: February 15, 2017
Review: January 4, 2017
Office: Production Support
Topic No.: 375-030-020-e

Department of Transportation

STANDARD SCOPE OF SERVICES and STAFF HOUR ESTIMATION GUIDELINES for PROJECT DEVELOPMENT and ENVIRONMENT (PD&E) STUDIES and DESIGN SERVICES

PURPOSE:

Both Department and Consultant Project Managers will utilize the ***S&SHE Guide Documents*** in scoping and negotiating all consultant contracts for PD&E Studies and Design Services.

AUTHORITY:

Sections 20.23(3)(a) and 334.048(3), Florida Statutes (F.S.)

REFERENCES:

Acquisition of Professional Services, Topic No. 375-030-002
Section 287.055, F.S.
23 Code of Federal Regulations (CFR), Part 172.

SCOPE:

Both Department and Consultant Project Managers will utilize the ***S&SHE Guide Documents*** in scoping and negotiating all consultant contracts for PD&E Studies and Design Services.

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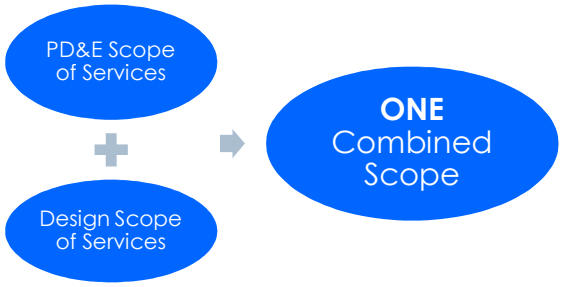
How Std. Scope for Concurrent PD&E and Design was Created?

Goal	*Prepare ONE Standard Scope of Services with Design and PD&E Study combined*



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How Std. Scope for Concurrent PD&E and Design was Created?

1. Identify typical projects that may have maximum benefits from combined phases
2. Identify project activities that overlap PD&E and Design
3. Keep (track) both PD&E (2.0) and Design (3.x, 4.x) work types
4. Involve a special task team composed of FDOT Districts and ACEC-FL with PD&E and Design expertise
5. Review the scope language that overlap and decide appropriate location (PD&E or Design)
6. Revise or modify the language as appropriate
7. Revise Staff Hour Estimation Guidelines
8. Revise Staff Hour Estimation Forms

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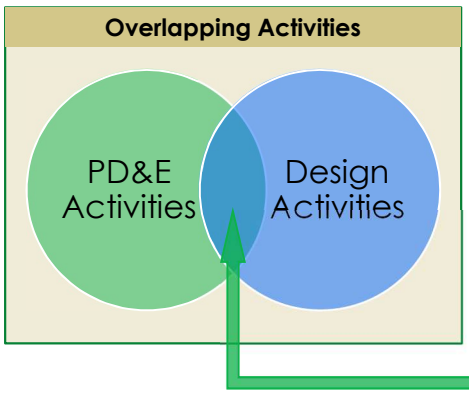
Project Development Activities that Overlap PD&E and Design Phases



- Public Involvement
- Roadway Analysis
- Drainage Analysis
- Utilities
- Structure Analysis
- Signalization Analysis
- ITS Analysis
- Lighting Analysis
- Landscape Analysis
- Survey
- Photogrammetry
- Geotechnical
- Noise
- Contamination
- Documentation

In which phase should we effectively scope these activities?

Review:
- District Scopes
- Other States Processes

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Approach to Modifying Scope of Overlapping Activities

Goal

Prepare ONE Standard Scope of Services with Design and PD&E Study combined

Did not want to create **a significant learning burden** to practitioners

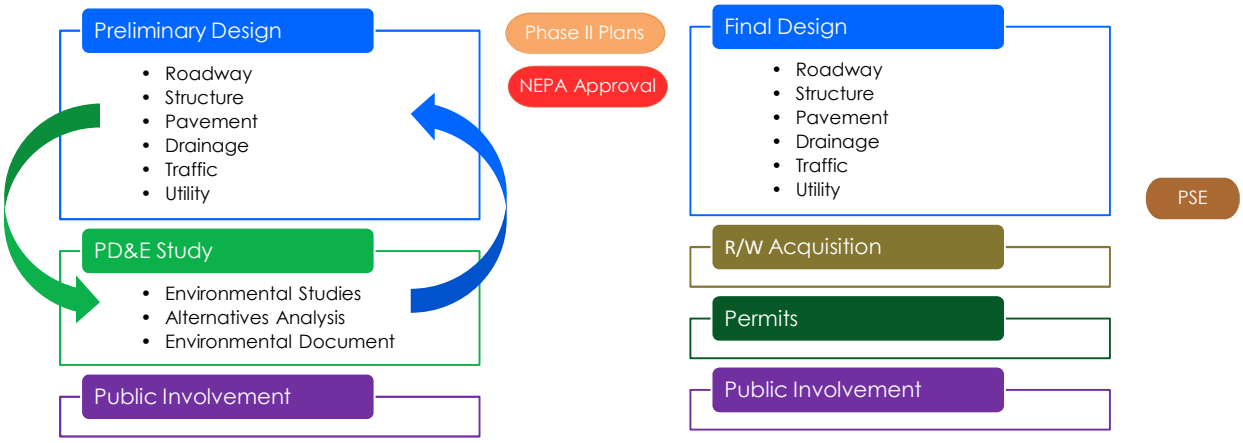
Learned from **other states processes** that overlap Design with PD&E

Approach

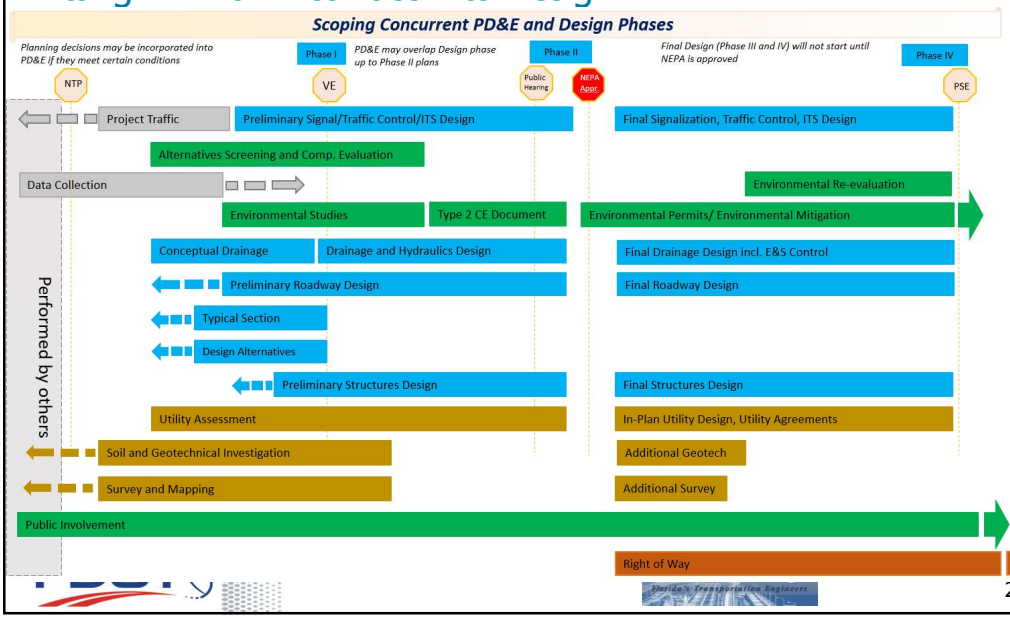
Maintain the integrity of Activities in the Roadway Standard SoS—Where can we place PD&E activities?

Eliminate redundancies from overlapping activities—Scope either as Design Activity or PD&E Activity

Fitting in PD&E Activities into Design



Fitting in PD&E Activities into Design



The District and Consultants can schedule overlapping activities depending on the project's context

Flexibility in scheduling these activities

Typical Projects that can have Concurrent PD&E and Design Phases

Projects with fewer environmental issues and lesser engineering complexity

- Class of Action = Type 2 CE or SEIR
- Roadway projects where only one Build Alternative is evaluated against No-Build Alternative
- Projects that do not involve complex interchanges/intersection modifications
- Bridge replacement projects that do not involve construction of segmental bridges or movable span

Remember

- Both PD&E and Design must have been programmed concurrently
- Final Design (Phase III and Phase IV) will not start until NEPA is approved

FDOT/ACEC-FL Task Team members

- 16 FDOT/ACEC-FL Task Team members (8 Consultants + 8 District Staff)
  - 8 with PD&E experience and 8 with Design experience
- 4 Central Office staff from Production Support, Roadway Design and Environmental Management
- Met 12 different times between February 2018 and February 2019
- Reviewed all activities and tasks for combined Scope of Services
- Reviewed associated Staff Hour Estimation Guidelines
- Engaged and solicited feedback from CO staff, District staff and Consulting community on the proposed scope language and Staff Hour Est. Guide

FDOT/ACEC-FL Task Team members

ACEC-FL	Firm
Jeff Novotny (Co-Chair)	**American**
Silvia Beltre	Stantec
Rosemary Woods	Atkins
Ryan Solis-Rios	Corradino
Ben Faust	DRMP
Martin Marquez	HNTB
Tom Presby	KCA
Nick Benedico	Tetratech

FDOT	District
Heather Grubert	5
Stephen Browning	2
Gwen Pipkin	1
Dat Huynh	6
Alaina Webb	3
Rax Jung	TPE
Brianna Myers	TPE
Susan Sadighi	TPE

Ex-FDOT Staff

Martha Hodgson
Amy Sirmans

FDOT Central Office

Bobby Bull
Benjamin Gerrell
Marjorie Kirby
Victor Muchuruza (Chair)

Approach Followed to Create Combined Scope

Approach

Maintain the integrity of Activities in the Roadway Standard SoS—Where can we place PD&E activities?

Eliminate redundancies from overlapping activities—Scope either as Design Activity or PD&E Activity

1. Started with the Standard Scope of Services for Design projects
2. Moved and merged PD&E activities that overlap into the corresponding design activities
   - This worked well for majority of the items, but there are some specific items to PD&E that were included or modified.
3. Recognized and removed redundancies throughout merged activities
4. Revised the Staff Hour Estimation Guidelines and Staff Hour Estimation Forms to match New Scope language and activities
   - Careful consideration was given to make sure that hours ranges and work descriptions took into account efforts for both PD&E and Design.

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Table of Contents Comparison

Design SOS

Combined PD&E and Design SOS

- PD&E tasks were merged into the Design SOS to create a combined scope.
- The two scopes have very similar outlines. The majority of the changes to the outline are in the first three sections.
- The Task Team efforts focused on combining tasks and modifying text to remove redundancies for each scope section.

How PD&E Scope of Services Activities were Revised

No.	PD&E Scope of Services Activity	Scope of Services for Concurrent PD&E and Design Activity
1	Scope of Services Purpose	1. Purpose and Project Description
2	Project Description and Objectives	1. Purpose and Project Description
3	Public Involvement	2b. Public Involvement
4	Engineering Analysis and Considerations	3a. Preliminary Engineering Analysis; 4. Roadway Analysis; 6a. Drainage Analysis; 7. Utilities and Railroad; 10. Bridge Development Report
5	Environmental Analysis and Report	3b. Environmental Analysis and Report 32. Noise Analysis
6	Environmental Document	3c. Environmental Document

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How Design Standard Scope Activities were Revised

No.	Existing Design Scope Activity	Description of Change into Concurrent Scope
1	Purpose	Combined with Project Description
2	Project Description	Added PD&E related info
3	General and Common Tasks	Broken into 2a. Common and 2. Public Involv.
4	Roadway Analysis	Added preliminary engineering tasks
6a	Drainage Analysis	Added preliminary engineering tasks
8	Environmental Permits,	Moved environmental clearance to PD&E task
10	Bridge Development Report	Added preliminary engineering tasks
15	Segmental Concrete Bridge	Not applicable for concurrent PD&E and Design
16	Movable Span Structures	Not applicable for concurrent PD&E and Design
32	Noise Barrier Impact Assessment	Added PD&E noise analysis

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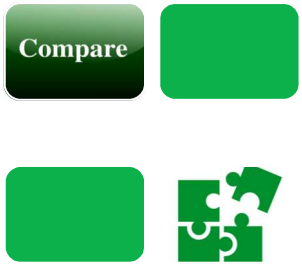
Cross Walk for Changes in the Table of Contents

- A tool to compare the tasks in the NEW scope for concurrent phase with standalone Scope of Services for PD&E and Design services
- Cross Walk Tables for the following Activities

2a	Common and General Tasks
2b	Public Involvement
3a	Preliminary Engineering Analysis
3b	Environmental Analysis
3c	Environmental Document
4	Roadway Analysis
6a	Drainage Analysis



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Activity 2a. Project Common and General Tasks

CONCURRENT PHASES SCOPE OF SERVICES			EXISTING	
Task No.	Task Name	Notes	Design Scope Task No	PD&E Scope Task No
2a.	PROJECT COMMON AND PROJECT GENERAL TASKS	Combine activities as they support both PD&E and Design		
2a.1	Project Common Tasks	Included cost for alternatives comparison; Included QC for Environmental Document;	3	2.2.8
2a.2	Project General Tasks			
2a.2.1	Joint Project Agreements		3.2	
2a.2.2	Specifications Package Preparation		3.6	
2a.2.3	Contract Management		3.4	2.4
2a.2.4	Value Engineering (Multi-Discipline Team) Review		3.5	4.17.3
2a.2.5	Prime Consultant Project Manager Meetings		3.6	2.2.6
2a.2.6	Plans Update		3.7	
2a.2.7	Post Design Services		3.8	
2a.2.8	Digital Delivery		3.9	2.2.10
2a.2.9	Risk Assessment Workshop		3.1	4.2
2a.2.10	Railroad, Transit and/or Airport Coordination	Some parts overlaps PD&E SOS Task 4.9.2	3.11	4.9.2
2a.2.11	Landscape and Existing Vegetation Coordination		3.12	
2a.2.12	Other Project General Tasks		3.13	2.5.6

Activity 2a. Project Common and General Tasks

Demonstrate Standard Scope of Services Language

Activity 2b. Project Common and General Tasks

CONCURRENT PHASES SCOPE OF SERVICES			EXISTING	
Task No.	Task Name	Notes	Design Scope Task No	PD&E Scope Task No
2b	PUBLIC INVOLVEMENT	Combine activities as they support both PD&E and Design		
2b.1	Public Involvement Plan	Include CAP for final design	3.1.1	3.1.1
2b.2	Public Involvement Data Collection			3.1.2
2b.3	Scheduled Public Meetings	Include Final Design phase (Phase III, IV) Public Meeting; include notifications	3.1.2, 3.1.9 and 3.1.10	3.2
2b.4	Other Agency Meetings	Move agency meeting from PD&E 3.2 and merge with Design 3.1.11	3.1.11	3.2
2b.5	Median Modification Letters		3.1.4	
2b.6	Driveway Modification Letters		3.1.5	
2b.7	Public Hearing			3.3
2b.8	Comments and Coordination Report	Include Public Involvement summary for Final Design CAP efforts		3.4
2b.9	Notification of Approved Environmental Document			3.5
2b.10	Communication Aids	Combined public involvement commucation aids into one task which the user will select	3.1.6, 3.1.7, 3.1.12	3.6
2b.11	Additional Public Involvement Requirements	This would apply to both PD&E and Design		3.6

Activity 2b. Public Involvement

Demonstrate Standard Scope of Services Language

Activity 3a. Preliminary Engineering Analysis

CONCURRENT PHASES SCOPE OF SERVICES			EXISTING	
Task No.	Task Name	Notes	Design Scope Task No	PD&E Scope Task No
3a	PRELIMINARY ENGINEERING ANALYSIS	Tasks that overlaps preliminary design will be scoped under Roadway Scope		
3a.1	Existing Conditions	Combined review of previous studies, existing conditions, and base maps into one task		
3a.1.1	Previous Studies	Include review of multimodal plans		4.1
3a.1.2	Existing Conditions Analysis			4.2
3a.1.3	Base maps			4.18.1
3a.2	Travel Demand Forecasting	Separated TDM from operational analysis		4.5.1
3a.3	Traffic Analysis			4.5
3a.3.1	Traffic Analysis Methodology			4.5.1
3a.3.2	Traffic Counts			4.5.2
3a.3.3	Vehicle Classification Counts on Roadway Segment and Ramps			4.5.3
3a.3.4	Pedestrian, Bicycle, and Other Multimodal Data			4.5.4
3a.3.5	Speed and Delay Studies Data	New Task		
3a.3.6	Calibration and Validation Data			4.5.5
3a.3.7	Existing Traffic Operational Analysis			4.5.6

Activity 3a. Preliminary Engineering Analysis

CONCURRENT PHASES SCOPE OF SERVICES			EXISTING	
Task No.	Task Name	Notes	Design Scope Task No	PD&E Scope Task No
3a.3.8	Calibration and Validation			4.5.7
3a.3.9	Future Demand Forecasting			4.5.8
3a.3.10	No-Build Analysis			4.5.9
3a.3.11	Development and Screening of Potential Alternatives	Include multimodal alternatives		4.5.10
3a.3.12	Operational Evaluation of Build Alternatives	Signalization analysis will be scoped under Roadway Scope		4.5.11
3a.3.13	Project Traffic Analysis Report			4.5.12
3a.4	Interchange Access Request			4.5.13
3a.5	Traffic Data for Noise Study			4.5.14
3a.6	Traffic Data for Air Quality Analysis			4.5.15
3a.7	Traffic Analysis near Railroad Crossings	New Task		
3a.8	Tolling Concepts			4.7
3a.9	Safety Analysis	Historical, HSM analyses and documentation		4.8
3a.10	Alternatives Evaluation	Intersection concepts, roundabout, structures and drainage will be scoped under roadway		4.17
3a.11	Alternatives Analysis Documentation			4.21

Activity 3a. Preliminary Engineering Analysis

Demonstrate Standard Scope of Services Language

Activity 3b and 3c. Environmental

CONCURRENT PHASES SCOPE OF SERVICES			EXISTING	
Task No.	Task Name	Notes	Design Scope Task No	PD&E Scope Task No
3b	ENVIRONMENTAL ANALYSIS AND REPORTS	Few tasks in this activity changed		5
3b.1	Sociocultural Effects			5.1
3b.1.7	Farmland	Moved here to match Type 2 Form		5.3.8
3b.2	Cultural Resources			5.2
3b.3	Natural Resources			5.3
3b.4.4	Asbestos and metal Based Coating		8	
3b.4.5	Navigation	New Task		
3b.5	Cumulative Effects Evaluation			5.5
3b.6	Project Commitments Record			5.6
3C	ENVIRONMENTAL DOCUMENT			5
3c.1	Environmental Document	Only applicable to SEIR and Type 2 CE		6
3c.2	Planning Consistency			4.22
3c.3	PD&E Re-evaluation		8	

Activity 3b and 3c. Environmental

Demonstrate Standard Scope of Services Language

Activity 4 Roadway Analysis

PROPOSED			EXISTING	
Task No.	Task Name	Notes	Design Scope Task No	PD&E Scope Task No
4	ROADWAY ANALYSIS			
4.1	Design Controls and Criteria			4.10.1
4.2	Typical Section			
4.2.1	Typical Section Analysis			4.10.2
4.2.2	Typical Section Package		4.1	4.18.4
4.6	Geometric Design			
4.6.1	Development of Design Options	Include multimodal accommodation		4.10.3, 4.10.6
4.6.2	Horizontal/Vertical Master Design Files		4.5	
4.6.3	Alternatives Concept Plans			4.18.2
4.7	Access Management		4.6	4.10.5
4.8	Intersections and Interchanges			
4.8.1	Intersection and Interchange Concepts Evaluation			4.10.4
4.8.2	Roundabout Evaluation		4.7	4.10.4
4.15	Design Report	Design criteria now will be scoped under 4.1	4.15	
4.17	Cost Estimate	Include LRE cost and ROW cost for PD&E alternatives evaluation	4.17	4.16

Activity 4 Roadway Analysis

Demonstrate Standard Scope of Services Language

Activity 6a Drainage Analysis

PROPOSED			EXISTING	
Task No.	Task Name	Notes	Design Scope Task No	PD&E Scope Task No
6a	DRAINAGE ANALYSIS	Incorporates Pond Siting Report and several supporting analyses		
6a.1	Drainage Map Hydrology		6a.1	4.14.2
6a.2	Base Clearance Calculations and Report		6a.2	4.14.2
6a.3	Pond Siting Analysis and Report		6a.3, 6a.23	4.14.4
6a.4	Design of Cross Drains		6a.4	4.14.2
6a.5	Design of Ditches		6a.5	4.14.2
6a.6	Design of Stormwater Management Facility (Offsite or Infield Pond)		6a.6	4.14.5
6a.7	Design of Stormwater Management Facility (Roadside Treatment Swales and Linear Ponds)		6a.7	4.14.5
6a.8	Floodplain and Environmental Permit Drainage Data Collection			4.14.1
6a.9	Floodplain Compensation Siting and Design		6a.8	4.14.3
6a.10	Design of Storm Drains	Includes age of existing cross drain in analysis	6a.9	4.14.5
6a.15	Location Hydraulics Report			4.14.6
6a.16	Bridge Hydraulic Report		6a.14	4.14.7

Activity 6a Drainage Analysis

Demonstrate Standard Scope of Services Language

Activity 8 Environmental Permits

PROPOSED			EXISTING	
Task No.	Task Name	Notes	Design Scope Task No	PD&E Scope Task No
8	ENVIRONMENTAL PERMITS	PD&E Reevaluations will now be covered in Section 3c		
8.1	Preliminary Project Research		8.1	
8.2	Field Work	Pond Site Alternatives will now be covered in Section 6a.3		
8.2.1	Establish Wetland Jurisdictional Lines and Assessments		8.2.2	
8.2.2	Species Surveys		8.2.3	
8.3	Agency Verification of Wetland Data		8.3	
8.4	Complete and Submit All Required Permit Applications		8.4	
8.4.1	Complete and Submit All Required Wetland Permit Applications		8.4.1	
8.4.2	Complete and Submit All Required Species Permit Applications		8.4.2	
8.5	Coordinate and Review Dredge and Fill Sketches		8.5	
8.6	Prepare USCG Permit Application		8.6	

Activity 8 Environmental Permits

Demonstrate Standard Scope of Services Language

Activity 10. Structures- Bridge Development Report

PROPOSED			EXISTING	
Task No.	Task Name	Notes	Design Scope Task No	PD&E Scope Task No
10	STRUCTURES- BRIDGE DEVELOPMENT REPORT			
10.1	Bridge Geometry	Included bridge analysis tasks from PD&E scope	10.1	4.13.2, 4.13.3
10.6	Long Span Concrete	Not applicable	10.6	
10.11-10.23	Data Collection and Design Criteria – Tender Visibility Study	Not applicable	10.11- 10.23	
10.29	Quantity and Cost Estimates (Movable Span)	Not applicable	10.29	
10.32	Exhibits (Movable Span)	Not applicable	10.32	
10.34	Report Preparation (Movable Span)	Not applicable	10.34	

Segmental Concrete Bridge and Movable Structures

15 STRUCTURES – SEGMENTAL CONCRETE BRIDGE

Segmental Concrete Bridge is not applicable to this scope.

~~The CONSULTANT shall prepare plans for Segmental Concrete Bridge(s) at the locations(s) specified in Section 2.5.~~

~~General Layout Design and Plans~~

~~**15.1 Final Bridge Geometry**~~

~~**15.2 Casting Geometry Calculation**~~

~~**15.3 Finish Grade Geometry Calculation**~~

16 STRUCTURES – MOVABLE SPAN

Movable Span Structures are not applicable to this scope

~~The CONSULTANT shall prepare plans for Movable Span Bridge(s) at the location(s) specified in Section 2.5.~~

~~Final Design Bascule Pier~~

~~**16.1 Pier Deck**~~

~~**16.2 Leaf/Pier Clearance Diagrams**~~

~~**16.3 Load Shoe Columns**~~

Activity 32. Noise Analysis and Noise Barrier Design

PROPOSED			EXISTING	
Task No.	Task Name	Notes	Design Scope Task No	PD&E Scope Task No
32	NOISE ANALYSIS AND NOISE BARRIER DESIGN			
32.1	Noise Study			5.4.1
32.2	Noise Barrier Evaluation	Review and update noise barriers from the PD&E phase.	32.1, 32.2	
32.3	Public Involvement		32.3	
32.4	Outdoor Advertising Identification		32.4	
32.5	Noise Study Report (NSR) Addendum		32.5	
32.6	Technical Meetings		32.6	
32.7	Quality Assurance/ Quality Control		32.7	
32.8	Supervision		32.8	
32.9	Coordination		32.9	

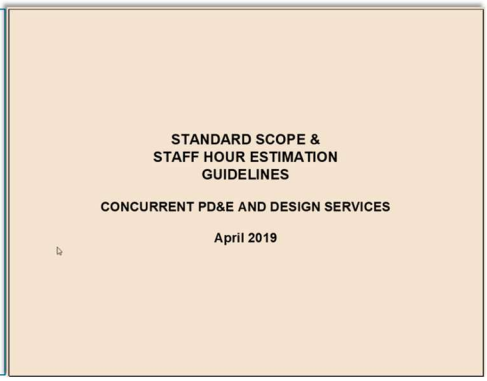
Activity 32 Noise Analysis and Noise Barrier Design

Demonstrate Standard Scope of Services Language

Staff Hour Estimation Guidelines for Projects with Concurrent PD&E and Design Phases

Staff Hour Staff Hour Estimation Guidelines

- The Staff Hour Estimates and Staff Hour Estimates Guidelines were created for the combined scope and tasks.
- Careful consideration was given to make sure that hours ranges and work descriptions took into account effort for both PD&E and Design.
- Some hours increased or decreased depending on the modifications



Staff Hour Estimation Guidelines

Demonstrate Staff Hour Estimation Guidelines

Tools and Guidance for Projects with Concurrent PD&E and Design Phases

Tools and Guidance to Support Concurrent Phases

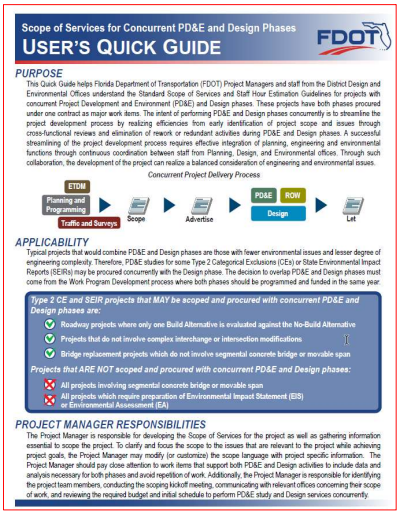
✓ Scope of Services and Staff Hour Estimation Guidelines

✓ Staff Hour Forms

✓ Users Quick Guide

Revision to relevant FDOT procedures and manuals—forthcoming

Tools and Guidance


Scope of Services for Concurrent PD&E and Design Phases
USER'S QUICK GUIDE

PURPOSE

This Quick Guide helps Florida Department of Transportation (FDOT) Project Managers and staff from the District Design and Environmental Offices understand the Standard Scope of Services and Staff Hour Estimation Guidelines for projects with concurrent Project Development and Environment (PD&E) and Design phases. These projects have both phases procured under one contract as major work items. The intent of performing PD&E and Design phases concurrently is to streamline the project development process by realizing efficiencies from early identification of project scope and issues through cross-functional reviews and elimination of rework or redundant activities during PD&E and Design phases. A successful streamlining of the project development process requires effective integration of planning, engineering and environmental functions through continuous coordination between staff from Planning, Design, and Environmental offices. Through such collaboration, the development of the project can realize a balanced consideration of engineering and environmental issues.

Concurrent Project Delivery Process

ETDM
Planning and Programming
Traffic and Surveys
Scope
Advertise
PD&E
ROW
Design
Let

APPLICABILITY

Typical projects that would combine PD&E and Design phases are those with fewer environmental issues and lesser degree of engineering complexity. Therefore, PD&E studies for some Type 2 Categorical Exclusions (CEs) or State Environmental Impact Reports (SEIRs) may be procured concurrently with the Design phase. The decision to overlap PD&E and Design phases must come from the Work Program Development process where both phases should be programmed and funded in the same year.

Type 2 CE and SEIR projects that MAY be scoped and procured with concurrent PD&E and Design phases are:

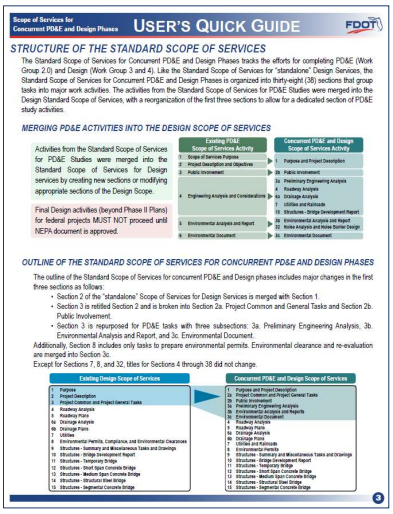
- Roadway projects where only one Build Alternative is evaluated against the No-Build Alternative
- Projects that do not involve complex interchange or intersection modifications
- Bridge replacement projects which do not involve segmental concrete bridge or movable span

Projects that ARE NOT scoped and procured with concurrent PD&E and Design phases:

- All projects involving segmental concrete bridge or movable span
- All projects which require preparation of Environmental Impact Statement (EIS) or Environmental Assessment (EA)

PROJECT MANAGER RESPONSIBILITIES

The Project Manager is responsible for developing the Scope of Services for the project as well as gathering information essential to scope the project. To clarify and focus the scope to the issues that are relevant to the project while achieving project goals, the Project Manager may modify (or customize) the scope language with project specific information. The Project Manager should pay close attention to work items that support both PD&E and Design activities to include data and analysis necessary for both phases and avoid repetition of work. Additionally, the Project Manager is responsible for identifying the project team members, conducting the scoping kickoff meeting, communicating with relevant offices concerning their scope of work, and reviewing the required budget and initial schedule to perform PD&E study and Design services concurrently.


Scope of Services for Concurrent PD&E and Design Phases
USER'S QUICK GUIDE

STRUCTURE OF THE STANDARD SCOPE OF SERVICES

The Standard Scope of Services for Concurrent PD&E and Design Phases tracks the efforts for completing PD&E (Work Group 2.0) and Design (Work Group 3 and 4). Like the Standard Scope of Services for "standalone" Design Services, the Standard Scope of Services for Concurrent PD&E and Design Phases is organized into thirty-eight (38) sections that group tasks into major work activities. The activities from the Standard Scope of Services for PD&E Studies were merged into the Design Standard Scope of Services, with a reorganization of the first three sections to allow for a dedicated section of PD&E study activities.

MERGING PD&E ACTIVITIES INTO THE DESIGN SCOPE OF SERVICES

Activities from the Standard Scope of Services for PD&E Studies were merged into the Standard Scope of Services for Design services by creating new sections or modifying appropriate sections of the Design Scope.

Final Design activities (beyond Phase II Plans) for federal projects MUST NOT proceed until NEPA document is approved.

Existing PD&E Scope of Services Activity		Concurrent PD&E and Design Scope of Services Activity
1 Scope of Services Purpose	→	1 Purpose and Project Description
2 Project Description and Objectives	→	
3 Public Involvement	→	2b Public Involvement
4 Engineering Analysis and Considerations	→	2a Preliminary Engineering Analysis 6 Roadway Analysis 6a Drainage Analysis 7 Utilities and Railroads 10 Structures - Bridge Development Report
5 Environmental Analysis and Report	→	2b Environmental Analysis and Report 32 Noise Analysis and Noise Barrier Design
6 Environmental Document	→	2b Environmental Document

OUTLINE OF THE STANDARD SCOPE OF SERVICES FOR CONCURRENT PD&E AND DESIGN PHASES

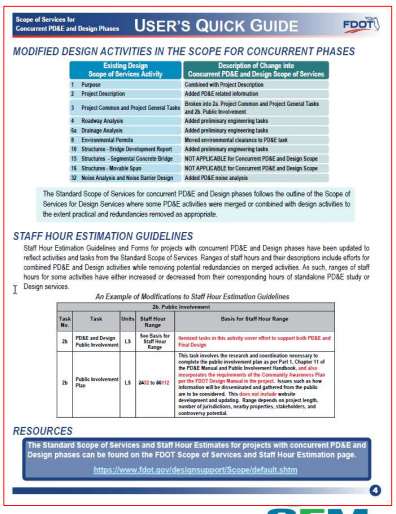
The outline of the Standard Scope of Services for concurrent PD&E and Design phases includes major changes in the first three sections as follows:

- Section 2 of the "standalone" Scope of Services for Design Services is merged with Section 1.
- Section 3 is retitled Section 2 and is broken into Section 2a. Project Common and General Tasks and Section 2b. Public Involvement.
- Section 3 is repurposed for PD&E tasks with three subsections: 3a. Preliminary Engineering Analysis, 3b. Environmental Analysis and Report, and 3c. Environmental Document.

Additionally, Section 8 includes only tasks to prepare environmental permits. Environmental clearance and re-evaluation are merged into Section 3c.

Except for Sections 7, 8, and 32, titles for Sections 4 through 38 did not change.

Existing Design Scope of Services	Concurrent PD&E and Design Scope of Services
1 Purpose	1 Purpose and Project Description
2 Project Description	2a Project Common and Project General Tasks
3 Public Involvement	2b Public Involvement
3a Preliminary Engineering Analysis	3a Preliminary Engineering Analysis
3b Environmental Analysis and Reports	3b Environmental Analysis and Reports
3c Environmental Document	3c Environmental Document
4 Roadway Analysis	6 Roadway Analysis
5 Roadway Plans	6a Roadway Plans
6a Drainage Analysis	6b Drainage Analysis
6b Drainage Plans	7 Utilities and Railroads
7 Utilities	8 Environmental Permits
8 Environmental Permits, Compliance, and Environmental Clearances	9 Structures - Summary and Miscellaneous Tasks and Drawings
9 Structures - Summary and Miscellaneous Tasks and Drawings	10 Structures - Bridge Development Report
10 Structures - Bridge Development Report	11 Structures - Temporary Bridge
11 Structures - Temporary Bridge	12 Structures - Short Span Concrete Bridge
12 Structures - Short Span Concrete Bridge	13 Structures - Medium Span Concrete Bridge
13 Structures - Medium Span Concrete Bridge	14 Structures - Structure Steel Bridge
14 Structures - Structure Steel Bridge	15 Structures - Segmental Concrete Bridge
15 Structures - Segmental Concrete Bridge	


Scope of Services for Concurrent PD&E and Design Phases
USER'S QUICK GUIDE

MODIFIED DESIGN ACTIVITIES IN THE SCOPE FOR CONCURRENT PHASES

Existing Design Scope of Services Activity		Description of Change into Concurrent PD&E and Design Scope of Services
1 Purpose		Combined with Project Description
2 Project Description		Added PD&E related information
3 Project Common and Project General Tasks		Broken into 2a. Project Common and Project General Tasks and 2b. Public Involvement
4 Roadway Analysis		Added preliminary engineering tasks
6a Drainage Analysis		Added preliminary engineering tasks
8 Environmental Permits		Moved environmental clearance to PD&E task
10 Structures - Bridge Development Report		Added preliminary engineering tasks
15 Structures - Segmental Concrete Bridge		NOT APPLICABLE for Concurrent PD&E and Design Scope
16 Structures - Movable Span		NOT APPLICABLE for Concurrent PD&E and Design Scope
32 Noise Analysis and Noise Barrier Design		Added PD&E noise analysis

The Standard Scope of Services for concurrent PD&E and Design phases follows the outline of the Scope of Services for Design Services where some PD&E activities were merged or combined with design activities to the extent practical and redundancies removed as appropriate.

STAFF HOUR ESTIMATION GUIDELINES

Staff Hour Estimation Guidelines and Forms for projects with concurrent PD&E and Design phases have been updated to reflect activities and tasks from the Standard Scope of Services. Ranges of staff hours and their descriptions include efforts for combined PD&E and Design activities while removing potential redundancies on merged activities. As such, ranges of staff hours for some activities have either increased or decreased from their corresponding hours of standalone PD&E study or Design services.

An Example of Modifications to Staff Hour Estimation Guidelines

2b. Public Involvement				
Task No.	Task	Units	Staff Hour Range	Basis for Staff Hour Range
2b	PD&E and Design Public Involvement	LS	See Basis for Staff Hour Range	Itemized tasks in this activity cover effort to support both PD&E and Final Design
2b	Public Involvement Plan	LS	2432 to 88112	This task involves the research and coordination necessary to complete the public involvement plan as per Part 1, Chapter 11 of the PD&E Manual and Public Involvement Handbook, and also incorporates the requirements of the Community Awareness Plan per the FDOT Design Manual in the project. Issues such as how information will be disseminated and gathered from the public are to be considered. This does not include website development and updating. Range depends on project length, number of jurisdictions, nearby properties, stakeholders, and controversy potential.

RESOURCES

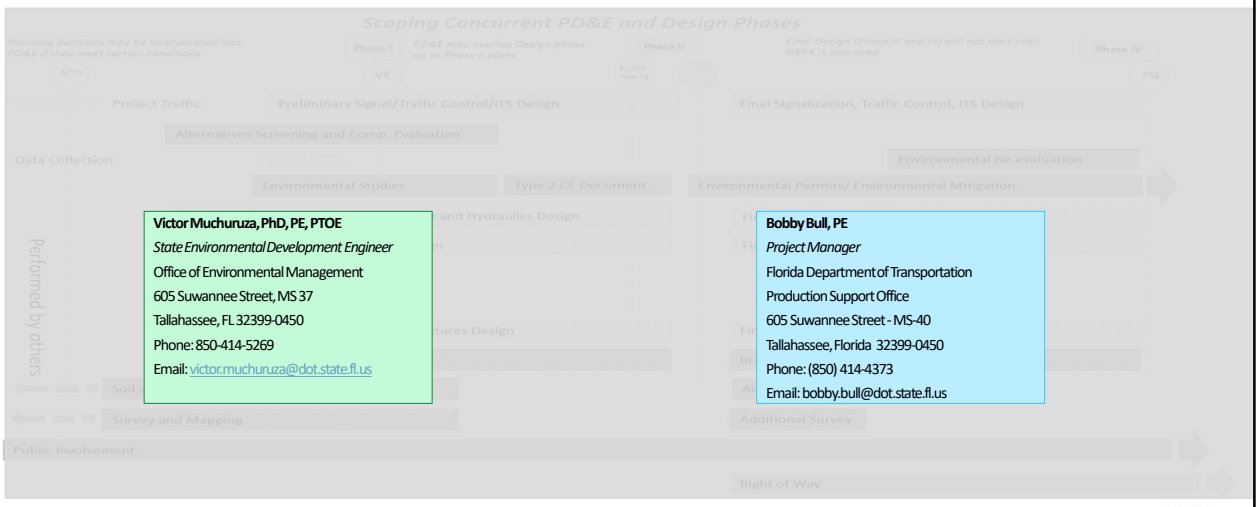
The Standard Scope of Services and Staff Hour Estimates for projects with concurrent PD&E and Design phases can be found on the FDOT Scope of Services and Staff Hour Estimation page.

https://www.fdot.gov/designsupport/Scope/default.shtm

Tools and Guidance

Schedule Template with standard Tasks and PSM Codes —To be completed in June

Thank you…



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