Statewide Acceleration Transformation (SWAT)

Presented by:
Marjorie Kirby
Paul Hiers, P.E.

July 2017
Comply with the National Environmental Policy Act (NEPA) and other related environmental laws and regulations
SWAT Process Evolution

2014 – FDOT took close look at time and cost of pre-construction activities. Found that although PD&E phase is least costly, it absorbs greatest time.

To address, FDOT:

- Identified state only funded projects, faster project delivery process than federally funded highway projects
- Transformed existing state funded project delivery process to further increase efficiency and savings
- Developed the Statewide Acceleration Transformation (SWAT) Project management approach, benefits ALL state funded and FHWA funded projects
- Established District SWAT Teams, experienced and multidisciplinary
- Updated PD&E Manual (Part 1, Chapter 4 and Chapter 10)
SWAT Defined – SWAT is a PROCESS

- A process to Link Planning to PD&E and PD&E to Design
- Project management approach to accelerate pre-construction activities
- Coordinated with Work Program Development Cycle
- Multi-disciplinary coordination through SWAT Teams
- Early engagement of Project Manager
- Goals
  - Inform and develop realistic and aspirational schedules
  - Informed PD&E Study Scope of Services
  - Simplify documentation requirements
  - Reduce redundant work
  - Overlap PD&E and Design Phases to extent possible
  - Identify issues earlier through cross-functional review
  - Hand in hand with Advanced Production Potential (APP)
  - Hand in hand with Planning work and ETDM Screening
  - Conduct advanced technical work when beneficial
SWAT Teams

• Recommended Composition
  ▪ Work Program (and Schedulers)
  ▪ MPO Liaison
  ▪ Intermodal Systems Development / Planning
  ▪ Design
  ▪ Environmental Management
  ▪ Other District Functional Disciplines can be invited to participate

• District Annual SWAT Planning Meetings and SWAT Kick-off meetings

• Central Office SWAT Team support Districts implement SWAT, track Lessons Learned and provide Training
Existing process

Planning → PD&E procurement → PD&E → Design procurement → Design

LDCA

New process

A → B: ETDM programming screen

A → C: SWAT project kickoff

B → D: Initial data collection and analysis

D → E → F: Procurement → PD&E → Design

F → Const. letting

ROW survey and mapping, acquisition

Environmental Document Approval

Const. letting
Getting to PD&E... requires progressive actions

1. SWAT Planning Meeting
2. SWAT Strategy Meeting
3. ETDM Programming Screen / Advanced Planning Studies
4. SWAT Kickoff Meeting
5. Pre-PD&E Activities
   - Data Collection
   - Studies
   - Advanced surveys or analysis
6. Consultant Acquisition
7. Fee Negotiation and Contract Execution
SWAT Process Components

SWAT Planning Meeting
SWAT Kick-off Meeting
Pre-PD&E Activities
PD&E Advertisement

- SWAT Strategy Meeting & Assign PM
- Traffic Forecasting / Analysis
- Advanced Notification (if not completed with ETDM screen)
- PD&E Scope and Schedule

PD&E Begins
SWAT Process and Work Program Development Cycle

1. **Long Range Transportation Plan**
   - SWAT Lead informed of update by MPO Liaison

2. **CFP SIS**
   - SWAP Planning Meeting (June to late October)

3. **MPO List of Priority Projects (Varies: July - October)**

4. **Statewide Lockdown November 14**
   - Tentative Work Program sent to Legislature January

5. **Tentative Work Program Adopted July 1**

6. **Various SWAT Kick-off Meetings**
   - Schedule 1 year before PD&E Advertisement
   - Supports scopes of services development

7. **PD&E Advertises**

---

**ETDM**

**Planning Screen**

**ETDM**

**Programming**

**Screening**
First Component: SWAT Planning Meeting

- Review PD&E projects to be programmed - early in Work Program Development Cycle
- Complete SWAT Scoping Form Section A for all candidate projects
- Consider Advanced Production Potential (APP) candidates

Deliverables:
- List of projects to be programmed as State Funds Only (SFO)
- List of projects to be programmed as federal funded projects
- Preliminary Environmental Document Class of Action
- NMSA and Type 1 CE projects; no PD&E phase or further SWAT consideration needed
- List of projects for ETDM Programming Screen
- Coordinated list of Advanced Production Potential (APP) Projects

### SWAT PLANNING MEETING

<table>
<thead>
<tr>
<th>Project Name / Facility Name</th>
<th>Limits</th>
<th>County</th>
<th>ETDM # (place DNQ for projects that Do Not Qualify)</th>
<th>Financial Management Number</th>
<th>Project Manager</th>
<th>Type of Project (i.e. capacity improvement, safety, bridge replacement, widening)</th>
<th>Does Project Involve Interstate Right of Way?</th>
<th>Does Project Impact Federal Lands?</th>
<th>Have federal funds been used on prior phase?</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 41 S</td>
<td>From CR 42 to CR 475</td>
<td>Marion</td>
<td>3126</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Widen to six lanes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
SWAT Scoping Form

- Completed prior to planning meeting
- Summarize project information
  - Project Description
  - Federal Considerations
  - Potential Funding
  - Anticipated Class of Action
SWAT Planning Meeting Form

A  Project Information
B  PD&E Study needed?
C  Federal Nexus
D  Federal Actions that might influence funding decisions
E  Funding, Cost, Schedule, and Local Priority
F  Recommendations
Second Component: SWAT Strategy Meeting

SWAT Strategy Meeting (February to April timeframe)

Review new tentative 5 year Work Program

Results:

- Assign Project Manager if not already done
- Refined Project Schedules that show:
  - SWAT Kick-off Meeting
  - ETDM Screening
  - Advanced Planning/Corridor Studies (if needed)
  - PD&E Advertisement
  - Conceptual Project Schedule
- Update SWAT Scoping Form Information
# Example Schedules from a SWAT Strategy Meeting

|----------------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|      |
| **Project 1 - EA**         |          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SWAT Strategy Meeting      | 2400 days|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| ETDM Programming Screen    | 6 mons   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SWAT Kick Off Meeting      | 0 days   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Advanced Studies           | 12 mons  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| PD&E Phase (variable duration) | 48 mons |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Design                     | 30 mons  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| R/W in Work Program        | 0 days   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| R/W Phase                  | 24 mons  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Construction in Work Program | 0 days |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Construction               | 24 mons  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| **Project 2 - Type 2B CE** |          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SWAT Strategy Meeting      | 1960 days|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| ETDM Programming Screen    | 6 mons   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SWAT Kick Off Meeting      | 0 days   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Advanced Studies           | 12 mons  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| PD&E Phase (variable duration) | 18 mons |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Design                     | 18 mons  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| R/W in Work Program        | 0 days   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| R/W Phase                  | 24 mons  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Construction in Work Program | 0 days |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Construction               | 32 mons  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| **Project 3 - EIS**        |          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SWAT Strategy Meeting      | 3240 days|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| ETDM Programming Screen    | 6 mons   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SWAT Kick Off Meeting      | 0 days   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Advanced Studies           | 12 mons  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| PD&E Phase (variable duration) | 72 mons |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Design                     | 24 mons  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| R/W in Work Program        | 0 days   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| R/W Phase                  | 30 mons  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Construction in Work Program | 0 days |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Construction               | 36 mons  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
SWAT Kick-off Meeting

OUTCOME FROM MEETING

- List of activities to be advanced prior to PD&E
- Detailed project schedule
- Preliminary assessment of risks and constraints
- Project delivery method
- Procurement approach (i.e. dual procurement and overlapping of phases)
- Project Management structure
- Draft scope of services
Data Collection and Analysis

- Identified during SWAT Kickoff Meeting
- Activities can include:
  - Traffic data collection and analysis
  - Environmental surveys
  - Geotechnical investigations
  - Public involvement
  - Utility Coordination

PD&E/Design Overlapping Activities
- Public Involvement
- Roadway Analysis
- Drainage Analysis
- Utilities
- Structure Analysis
- Signalization Analysis
- ITS Analysis
- Lighting Analysis
- Landscape Analysis
- Survey
- Photogrammetry
- Geotechnical
Plans Production

- Full set of Phase II (60%) Plans
Scope of Services

PD&E Scope  Design Scope

SWAT Scope of Services
Discussion