Facilities Development Process (FDM Chapter 3)

Fall 2016
Presenters

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Questions

- Hold all questions until the end.
WHAT

- Facilities Development Process (FDM Chapter 3) has been rewritten to include uniform statewide definitions for the following:
  - Phases
  - Life Cycles
  - Milestones
  - Deliverables
The need became evident as a result of work by two teams which included:

- DOTI Improvement Team
- Health Report Process Improvement Team
- FDM Chapter 3 Facilities Development Process rewrite
Identified Problems

- Consistent application of the process statewide.
- Time needed to mobilize resources.
- Scope changes.
- Projects started on time.
Other Considerations

- Planning/Programming performance measures.
- PMP 2.5 application upgrade.
- Guidance in FDM Chapter 3 outdated.
Solution

- Revise process outline.
- Provide a clear blue print of how we progress through the process.

*First Step Update FDM Chapter 3*
Prototype - Concept
Refined - Process

<table>
<thead>
<tr>
<th>Phase</th>
<th>Program Development</th>
<th>Project Management Plan</th>
<th>Project Resourcing</th>
<th>Preliminary Impact Review</th>
<th>Design Study</th>
<th>PS&amp;E</th>
<th>Design Project Closeout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Cycle (Construction ID)</td>
<td>00</td>
<td>10</td>
<td>11</td>
<td>12</td>
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<td>20</td>
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<table>
<thead>
<tr>
<th>Milestone</th>
<th>Project start</th>
<th>Project Management Plan Approved</th>
<th>Begin Design</th>
<th>Preliminary Impact Review Complete</th>
<th>Design Study Report Approved</th>
<th>PS&amp;E Complete</th>
<th>Project LET</th>
<th>Project Award</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Timeline</th>
<th>5 years (DXY to LET)</th>
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</table>

<table>
<thead>
<tr>
<th>Deliverables</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope</td>
<td>Project Level Scope</td>
</tr>
<tr>
<td>Schedule</td>
<td>Program Lot Schedule</td>
</tr>
<tr>
<td>Budget</td>
<td>Program Level Construction Estimate</td>
</tr>
<tr>
<td>Phase Deliverables</td>
<td>Purpose and Need</td>
</tr>
<tr>
<td></td>
<td>Scoping Interactive Control Evaluation (ICCE)</td>
</tr>
<tr>
<td></td>
<td>Safety Screening Analysis (SSA)</td>
</tr>
<tr>
<td>Phase Activities</td>
<td>300 FDM Chapter 9 - attachment 1.2</td>
</tr>
</tbody>
</table>

Change Management:
- Approved EIM Management Plan establishes the original baseline for applying Regional Change Management process.
Phase Elements

| Phase Name | Correlates to work being done. |

- **Phase Name**
  - Correlates to work being done.
Life Cycle

- FIIPS accounting Life Cycle for the construction LET project.
- Tracks the refinement of the construction estimate and schedule date.
### Phase Elements

- **Milestone**
  - Significant points identifying the start or end of a phase or event.

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<tr>
<th>Phase</th>
<th>Program Development</th>
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<tr>
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<td>Phase Activities</td>
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<td>Change Management</td>
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### Phase Elements

<table>
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<tr>
<th>Phase</th>
<th>Program Development</th>
<th>Project Management Plan</th>
<th>Project Resourcing</th>
<th>Preliminary Impact Review</th>
<th>Design Study</th>
<th>PSE</th>
<th>Design Project Closeout</th>
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<td>16</td>
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<td>Begin Design</td>
<td>Preliminary Impact Review Complete</td>
<td>Design Study Report Approved</td>
<td>PSE Complete</td>
<td>Project LET</td>
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<tr>
<td>Timeline</td>
<td>6 years prior to LET</td>
<td>6 months minimum for consultant resourcing (if required)</td>
<td>Design start date based on scope elements or project</td>
<td></td>
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</tr>
</tbody>
</table>

- **Timeline**
  - Chart lists some general timeline information
Phase Elements

- Deliverables
  - Required to be completed prior to advancing to the next phase.
  - Scope, Schedule, Budget and Other Phase Deliverables
Phase Elements

- Phase Activities
  - Task that may occur during a phase.
  - FDM Chapter 3 attachment 1.2.
Phase Elements

Phase Activities
- FDM Chapter 3
- attachment 1.2.

**Project Management Plan phase**
This is a list of activities that may occur during this phase. This list is not all inclusive. Some activities are listed under multiple phases, improvement type will determine when activities take place and the level of effort required. Refer to appropriate FDM chapters and other manuals for specific guidance on activities.

<table>
<thead>
<tr>
<th>Project Management Plan Phase Activity</th>
<th>Reference</th>
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<tbody>
<tr>
<td>Let schedule data</td>
<td>FDM 3-10-10 - Scheduling and Programming</td>
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<td></td>
<td>FDM 19-1-3 - Project Letting Process (PLP)</td>
</tr>
<tr>
<td>Public Involvement Plan</td>
<td>FDM 6-5-10 - Public Involvement Plan</td>
</tr>
<tr>
<td>Stakeholders list</td>
<td>FDM 6-5-10 - Public Involvement Plan</td>
</tr>
<tr>
<td></td>
<td>Transportation Project Management System guidance (TPMS guidance)</td>
</tr>
<tr>
<td>Municipality and other agencies outreach</td>
<td>FDM 6-5-15 - Public Involvement Techniques</td>
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<td>Initial data gathering and existing conditions:</td>
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<tr>
<td><em>Access and field conditions</em></td>
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<tr>
<td>Lane/shoulder widths</td>
<td>FDM Chapter 7 - Access Control</td>
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<tr>
<td>Pavement slopes</td>
<td>FDM 11-5-5 - General Design Consideration - Access Control</td>
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<tr>
<td>Side slopes</td>
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<td>Pavement thickness</td>
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<td>Right of way</td>
<td></td>
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<tr>
<td>Access controls</td>
<td></td>
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<tr>
<td>Permits</td>
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<tr>
<td>Driveway</td>
<td>FDM Chapter 7 - Access Control</td>
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<td>Crosswalk</td>
<td>FDM 11-5-5 - General Design Consideration - Access Control</td>
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<td>Lighting</td>
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<tr>
<td>Bike/pedestrian accommodations</td>
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<tr>
<td>Bike plans</td>
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</tbody>
</table>

Reference numbers for access the referenced content.
Phase Elements

- Change Management
  - Follow Regional Change Management Process.
Phase Elements

- Performance Measures
  - FDM Chapter 3 attachment 1.1 page 2.
  - Lists Performance Measures that directly correlate to the Facilities Development Process.
<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Project Init</th>
<th>Project Management Plan</th>
<th>Design Study</th>
<th>PS&amp;E</th>
<th>Design Project Closeout</th>
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<tbody>
<tr>
<td>Based on Program Year snapshot</td>
<td>Planning (Program Loaded On Time (PLOT))</td>
<td>Planning (Program On Budget at Solicitation (PBS))</td>
<td>Planning (Program Loaded On Time (PLOT))</td>
<td>Planning (Program On Budget at Let (PBL))</td>
<td>PS&amp;E (Delivery On Time (DOT))</td>
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<td>Based on comparison of Program Year cost estimates</td>
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<tr>
<td>Based on Program Year snapshot</td>
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<tr>
<td>Based on comparison of Life Cycle cost estimates</td>
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<tr>
<td>Based on comparison of Life Cycle cost estimates vs. contractor bid</td>
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<tr>
<td>Based on monthly snapshot</td>
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<tr>
<td>Based on actual snapshot</td>
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</table>

Facilities Development Process - State Highway Rehabilitation (SHR)

<table>
<thead>
<tr>
<th>Phone</th>
<th>Program Development</th>
<th>Project Management Plan</th>
<th>Project Resourcing</th>
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<tr>
<td>Life Cycle (Construction B)</td>
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<td>30</td>
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<table>
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<tr>
<th>Milestone</th>
<th>Project Start</th>
<th>Project Management Plan Approved</th>
<th>Preliminary Impact Review Complete</th>
<th>Design Study Report Approved</th>
<th>PS&amp;E Complete</th>
<th>Project LET</th>
<th>Project Award</th>
</tr>
</thead>
</table>

| Timeline | 6 months minimum for consistent resourcing (if required) | Begin design start date based on scope elements of project |

<table>
<thead>
<tr>
<th>Scope</th>
<th>Program Level Scope</th>
<th>Project Level Scope</th>
<th>Project Level Scope reviewed</th>
<th>Project Level Scope verified</th>
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<tbody>
<tr>
<td>Schedule</td>
<td>Program Let Schedule</td>
<td>Control Schedule</td>
<td>Detail 8 schedule</td>
<td>Let schedule data verified</td>
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<tr>
<td>Deliverables</td>
<td>Program Level Construction Estimate</td>
<td>Design Delivery Budget</td>
<td>Construction Estimate</td>
<td>Risk-Let Estimate</td>
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<td>Phase Deliverables</td>
<td>Design ID Authentication</td>
<td>Improvement Type</td>
<td>Signed SMFA (DesignConnectivery)</td>
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<td>Phase Activities</td>
<td>Purpose and Need</td>
<td>Selecting Project Quality Control</td>
<td>Construction Estimate</td>
<td>Risk Assessment</td>
</tr>
<tr>
<td>Change Management</td>
<td>Approved Project Management Plan allows the original baseline for applying project Change Management process.</td>
<td>Regional Change Management process in effect</td>
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</table>

*List to Performance Measures*

Updated 05/15/2018
Program Development Phase

- Phase at the beginning of the process
- Life Cycle: LC00
- Scope: Program Level
- Schedule: Program Let Schedule
- Budget: Program Level Construction Estimate
Other Phase Deliverables include:

- Design ID Authorization
- Highway Improvement Type
- Signed State Municipal Financial Agreement (SMFA) for the design of projects on connecting highways
Program Development Phase

- End of Phase
  - Move to LC10
  - Move to Project Management Plan Phase
Project Management Plan Phase

- Life Cycle: LC10
- Milestones: Project Start and Project Management Plan Approved
- Scope: Project Level
- Schedule: Control and Detail; Let Schedule
- Budget: Construction Estimate and Design Delivery Budget
Other Phase Deliverables include:

- Purpose and Need
- Scoping Intersection Control Evaluation (ICE)
- Safety Screening Analysis (SSA)
- Risk Assessment
The Project Management Plan is approved once all required business areas concur.

*The approved Project Management Plan sets baseline for performance measures and change management.*

End of Phase
- Move to LC 11
- Move to Project Resourcing Phase.
Phase provides time in the delivery schedule to mobilize resources either in-house or consultant.

- Life Cycle: LC 11
- Milestones: Project Management Plan Approved and Begin Design
- Scope, Schedule and Budget unchanged.
Project Resourcing Phase

- Other Phase Deliverables include:
  - Assignments for resources
  - Executed consultant contracts (if required)
  - Risk Assessment
Project Resourcing Phase

- End of Phase
  - Life cycle remains at LC11
  - Move to Preliminary Impact Review Phase
Preliminary Impact Review Phase

- Life Cycle: LC11
- Milestones: Begin Design and Preliminary Impact Review Complete
- Scope, Control and Detail Schedule, and Let Schedule reviewed and verified
- Schedule: Non-Let schedules
- Budget: Construction Estimate and Non-Let Estimates
Other Phase Deliverables include:

- Alternative Selection Intersection Control Evaluation (ICE)
- Draft Preliminary Plan
- Preliminary Structure Plan
- Environmental, Utility, R/W Impacts
- Railroad Project Submittal Package
- Signed State Municipal Financial and Maintenance Agreements
- Risk Assessment
End of Phase:
- Move to LC12
- Move to Design Study Phase.
Design Study Phase

- Life Cycle: LC12
- Milestones: Preliminary Impact Review Complete and Design Study Report Approved
- Scope, Schedule and Budget verified.
Other Phase Deliverables include:

- Preliminary Plan
- Preliminary Structure Plan
- Signed Environmental document
- Signed Design Study Report
- Preliminary Plat
- Risk Assessment
End of Phase
  - Move to LC 15
  - Move to PS&E Phase
PS&E Phase

- Life Cycle: LC15
- Milestones: Design Study Report Approved and PS&E Complete
- Scope, Schedule and Budget should typically remain unchanged.
Other Phase Deliverables include:

- PS&E package
- PS&E exceptions
- Permits
- Risk Assessment
End of Phase:
- Move to LC 20
- Move to Design Project Closeout Phase
Design Project Closeout Phase

- Life Cycle: LC20
- Milestones: PS&E Complete, Project Let and Project Award
Other Phase Deliverables include:
- PS&E exceptions
- Plan check revisions
- Advertisement for bid
- Addenda
- Risk Assessment
- Review bids
Direct Benefits

- Projects started on time
- Time needed to mobilize resources
- Scope changes
- Consistent application of the process statewide
Indirect Benefits

- A clear understanding of the expectations with flexibility for regional differences.
- Less stress on resources.
- Improved relations with internal and external partners.
- Overall improvement of performance measures not directly correlated to the Facilities Development Process.
What's Next?

- FDM Chapter 3 updates
- Update conflicting guidance
- Regional guidance to supplement the updated process
Resources

Link to Facilities Development Process documents @ http://wisconsindot.gov/Pages/doing-bus/eng-consultant/cnsLtrsrces/rdwy/training-fdm3.aspx

FDM Chapter 3 Section 1 Process Overview (narrative)
FDM Chapter 3 Attach 1.1 (deliverables & performance measures)
FDM Chapter 3 Attach 1.2 (phase activities)
FDM Chapter 3 Fall 2016 training webinar & slide show presentation
Q&A