



## Project Management Procedure

SUBJECT: <div style="text-align: center;">PROJECT SCOPE</div>	NUMBER: <div style="text-align: center;">PMO-1.7</div>
RESPONSIBILITY: <div style="text-align: center;">PROJECT MANAGER</div>	EFFECTIVE DATE: <div style="text-align: center;">April 27, 2018</div>
	SUPERSEDES: <div style="text-align: center;">PMO-1.6</div>
STATE LOCATION AND DESIGN ENGINEER APPROVAL:  <div style="text-align: right; margin-right: 50px;"> <hr style="width: 20%; margin: 0 auto;"/>           State Location and Design Engineer         </div>	

This procedure outlines the actions required to establish the scope of a project from PE authorization through scope approval. Scoping includes reviewing the Project Sponsor’s preliminary scope, schedule and budget to determine if adequate time and funding are available to accomplish all required project development activities and to fulfill the project’s stated purpose; and/or, refining the budget and schedule to meet the project purpose, or redefining the scope and purpose to meet the projects schedule or available funding.

During the scoping phase, the project manager is responsible for assembling and disseminating preliminary project data; identifying the project team members; conducting the scoping kickoff team meeting; communicating with functional managers concerning their scope of services and the required budget and time required to perform those services; coordinating the preliminary engineering process; conducting the preliminary field inspection team meeting; determining a scoping level project budget and schedule; and obtaining written scoping approval for the project.

The process described below should be applied to individual projects based on their complexity.

**GENERAL - Scoping Kickoff Team Meeting**

A project’s scoping phase begins after PE funds are authorized (schedule task 12) and the project manager (PM) is assigned. The first duty of the PM is to review the preliminary scope, schedule, budget, and project limits and to meet with the project sponsor to ensure a clear understanding of the project purpose and need. Then, the PM should assemble all available data related to the project such as old plans, traffic counts, utility information, aerial photos, and any other documents that may be retrieved and uploaded to iPM Documents to share with team members.

The PM performs all preliminary work needed to determine appropriate representatives to be included in the Project Scoping Kickoff Meeting (the first inter-disciplinary team meeting). These representatives should include all the disciplines and functional areas involved in providing design or support services for project development as well as the project sponsor, key Residency staff, FHWA (area engineers attend at their discretion), municipalities, and other appropriate stakeholders. Invitations must be sent a minimum of two weeks prior to the date of this meeting. Attendance at the meeting is mandatory unless the PM determines that written comments submitted prior to the meeting, in lieu of attendance, is acceptable. If the stakeholders or their representatives cannot attend, the meeting must be rescheduled. Each discipline’s representative on the project team shall investigate the proposed project from their discipline’s perspective prior to the meeting and should come to the meeting prepared to discuss the project.

At the kickoff meeting, the project team evaluates the project's purpose, need, scope, and design criteria before any significant engineering funds are expended. Common Sense Engineering (CSE) and Context Sensitive Solutions (CSS) are project development approaches that are initiated at this point. The PM begins development of a living document that demonstrates common sense/flexibility in design approach.

The team uses field observations, available crash data, GIS, and other relevant operational information to discuss project delivery strategies in conjunction with alternative project design alternatives and options. Relevant operational information includes: project definition [scope, complexity level, roadway and traffic characteristics, and Transportation Management Plan (TMP) alternatives], construction phasing/staging of equipment and materials, temporary traffic control, public communications and transportation operations strategies, and possible alternate/detour routes.

A preliminary Public Communications Plan (including the need for a public information meeting during the scoping phase, posting of willingness or need for a public hearing) is drafted with the assistance of District Public Affairs.

## **DETAILS – Scoping Kickoff Team Meeting**

### **Preparing for Field Review and Scoping Kickoff Team Meeting**

1. Review the initial project schedule and adjust planned dates as needed. Document the start of Project Scope Task (22) in Schedule by entering the actual date work begins.
2. Identify Project Team members based on the requirements for project development; coordinate/negotiate effort durations and budgets with Functional Managers for resources, and document Project Team Members in iPM Communications and Divisions tab.
3. Initiate applicable [Scoping Worksheets](#). (optional on Tier I, required on Tier II projects)
4. Initiate a Context Sensitive Analysis and Stakeholder Outreach to involve all stakeholders in the development process as described in [IIM-LD-255 – Fundamentals of Common Sense Engineering](#) and [IIM-LD-253 – Landscape Architecture Program](#).
5. Collect data for Environmental Review Process (ERP) and Scoping kickoff meeting; verify that [Request for Traffic Data](#) (LD-104) is submitted.
6. Coordinate with the Area Construction Engineer on the Scoping Constructability Review in accordance with the guidelines provided in [Appendix E of the Road Design Manual](#).
7. Consider and evaluate the delivery method for the project – Design-Bid-Build (Consultant or VDOT Designer), Design Build, or Public-Private Partnership.
8. Determine Stakeholders and Team Members that should attend the Scoping Meeting. Include Stakeholders and Team Members from the appropriate disciplines (some disciplines such as Location and Design Division and Environmental Division may have several sub-disciplines representing specific expertise). The potential members of the Scope/ Field Review Team are listed in the [Scoping Kickoff Team Meeting Report](#) template.
9. Confirm with the Lead Design Engineer that the project documents loaded in iPM Documents are sufficient for the Field Review and Scoping Kickoff Meeting.
10. Discuss with the Environmental Division team member the findings of the Environmental Review Process (ERP) task. If not yet complete, verify that it will be prior to the Kickoff meeting.
11. Schedule the Scoping Kickoff Team Meeting and make all pertinent project information accessible to the Project Team in advance of the meeting. Allow sufficient time for the Team Members to review the project documents before the meeting.

### **Conduct Field Review and Scoping Kickoff Team Meeting**

1. Conduct the Field Review and discuss constructability issues including construction access and maintenance of traffic scheme.
2. Discuss, confirm or refine the project limits to ensure the projects purpose will be achieved.
3. Discuss, confirm or refine the initial project schedule (particularly the scoping tasks) to ensure team commitment.
4. Discuss, confirm or refine the pre-scoping programming estimate to develop the initial construction cost budget.
5. Identify potential project risks (both project development and construction that may affect schedule and budget), conduct risk assessment and develop risk mitigation plan. (See [PMO-15.0, Project Risk Management](#) for details).
6. Determine the level of public involvement and whether a Public Hearing is needed.
7. Discuss and confirm the delivery method - Design-Bid-Build (Consultant or VDOT Designer), Design Build, or Public-Private-Partnership.
8. Update the initial project budget in PCES and the initial project schedule (identify critical tasks) with the input from the appropriate Team Members. (Refer to [PMO-3.4, Project Development Budget and Estimates](#) and [PMO-2.5, Project Development Schedules](#) for details).
9. Discuss whether any adjacent projects exist. If so, discuss their schedule's effects on sequence of construction and impacts to the TMP including detours.
10. Discuss whether any site plans have been submitted within the project area. If so, discuss their effects on the project and how to best accommodate them.
11. Begin dialog with the District Hydraulics Engineer (DHE) concerning the VPDES Construction Permit which must be obtained for all applicable projects. Work with the DHE to secure the permit. The permit must be posted at the Construction site prior to any land disturbance activity.
12. Complete and save the [Scoping Kickoff Team Meeting Report](#) in iPM.
13. Close the Scoping Team Meeting Task (22X) in the Project Schedule immediately after the meeting is completed.

### **After the Kickoff Meeting monitor the tasks in the Scoping Phase**

1. Review, verify and update the Project Schedule with the Team Members to ensure appropriate tasks (with planned durations) for project development are included.
2. Monitor the completion of tasks in the Schedule to verify all project data required for preliminary design is requested and received by the appropriate project Team Member.
3. Communicate with the Lead Design Engineer to confirm the anticipated completion date of the plans for the Preliminary Field Inspection Meeting.
4. Schedule and conduct a Public Information Meeting, if deemed appropriate.
5. Coordinate with the Area Construction Engineer on PFI Constructability Review in accordance with the guidelines provided in the [Road Design Manual-Appendix E](#).

### **GENERAL - Preliminary Field Inspection / Final Scoping Team Meeting**

The Preliminary Field Inspection / Final Scoping (PFI) Team Meeting is the second inter-disciplinary team meeting after which the project's scope is finalized. This meeting allows the Project Team, Municipalities and other Stakeholders an opportunity to review preliminary design plans and discuss the [design master plan](#). It allows the PM an opportunity to obtain consensus on major items (line and grade) with the goal of eliminating or minimizing rework, schedule slips, budget overruns and other risks by resolving issues early

in the projects development. Risks are documented in the Risk Management Plan. Comment Resolution Sheets should be used to document design-related comments.

The PM schedules the PFI team meeting when the preliminary plans are complete and available in Falcon. This meeting must be scheduled far enough in advance to allow for plan review by all involved. Representatives are invited a minimum of two weeks prior to the PFI. Attendance at the meeting is mandatory unless the PM determines that written comments uploaded in iPM and submitted prior to the meeting in lieu of attendance are acceptable. The Federal Highway Administration (FHWA) is invited to this meeting on all federally funded projects. They will determine if their participation is necessary.

The PFI meeting is conducted by the PM. Documentation of all issues discussed, along with any recommendations made as well as any responses given, must be recorded. Additionally, all action items, including who is responsible for the item and when it is expected to be accomplished, should be documented. Design recommendations agreed upon at this meeting should be documented and incorporated into the plans.

Updated PE and construction cost budgets received from Team Members and the Right of Way and Utility estimates are combined and uploaded in PCES to complete the scoping budget. Please see [PMO-3.4, Project Development Budget and Estimates](#), for more information

The [Final Scoping Report \(PM-100\)](#) is completed and submitted to the District Administrator (or their designee) for approval, and for Tier 2 projects, forwarded to the State Location and Design Engineer or the State Bridge and Structure Engineer for their approval and signature. The scoping phase is completed when the signed report is uploaded into iPM documents and the actual end date for the scheduling task (Task 22) is entered in the schedule.

### **DETAILS - Preliminary Field Inspection / Final Scoping Team Meeting**

1. Confirm with the Lead Designer that the PFI plans are complete and available in FALCON.
2. Confirm the LD-436 (PFI) is complete and uploaded in iPM Documents.
3. Confirm that the scheduled time of the PFI meeting ensures sufficient time for the team members to review the plans before the meeting is provided.
4. Prepare an agenda using the [Final Scope Team Meeting Report](#) template to make sure all known and potential issues associated with the project are discussed. Distribute the agenda to the Team Members a minimum of two weeks prior to the meeting to solicit additional input.
5. Conduct Field Review to define any constructability issues prior to the meeting if appropriate.
6. Conduct PFI meeting.
7. Document all issues, recommendations, responses and action items, noting what is expected, who is responsible and when it will be accomplished.
8. Upload the [Final Scope Team Meeting Report](#) and all comments, recommendations, responses and action items into iPM Documents.
9. Review and adjust the Project Schedule and Budgets as appropriate with the input of the project Team Members.
10. Close the PFI Meeting Task (36X) and the PFI Constructability Review Task (36C) in the Project Schedule.
11. Confirm the plans are revised to address the approved recommendations from the PFI meeting.
12. Verify revised plans are uploaded in FALCON and that Plan Design – Preliminary Field Inspection (Task 36F) has been closed.

13. Complete [Scoping Report \(PM-100\)](#) and submit for approval - The Project Manager finalizes the Scoping Report at the conclusion of the Preliminary Field Inspection Team Meeting and submits to the required individual(s) for approval.
14. Close Scope Project (Task 22) in the Project Schedule as soon as the Scoping Report is approved and complete any task duration modifications in the Project Schedule. If the advertisement date is within 24-months, closing this task baselines the project on Dashboard. See the [Dashboard Users Guide](#) for more information concerning Dashboard and baselining.
15. Upload the approved Scoping Report (PM-100) to iPM Documents and send e-copies to any stakeholders that do not have access to iPM.
16. Upload the Scoping estimate into the Project Cost Estimating System (PCES) and recommend the estimate within ten (10) working days after the Scoping task is complete. If a Scoping estimate is not uploaded and recommended within this timeframe, Dashboard will assign the most recent uploaded and recommended estimate as the Scoping estimate. See [PMO-3.4, Project Development Budget and Estimates](#) for more information on this subject.

### **Changes after Scope Approval**

The Scoping Report constitutes formal approval on the project concept and the District / PM are at risk if they continue project development prior to obtaining written approval. Approval is important because deviations from the documented scope, schedule and budget are not allowed without approval from Management through the use of the [Project Change Management Form PM-102](#) or by re-scoping the project.

The decision to alter the project scope is not made until impacts to budget, schedule, quality and environmental issues are identified and considered. Changes are generally based upon the following:

- Change in purpose and need of the project
- Project right of way authorization date or advertisement date is delayed or advanced significantly due to unanticipated funding decisions
- Change in project footprint (typical section, location, or terminus)
- Unforeseen major environmental impacts resulting from project as originally scoped.
- Unanticipated significant public interest or opposition requiring more public input or consideration of other design alternatives

When after consultation the PM, Project Sponsor and PDE determine the scope change may be accomplished without a total project re-scope, the [Project Change Control Form PM-102](#) shall be used to amend the original Scoping Report. Impacts to schedule/budget/quality must be documented. The PM must upload the approved PM-102 to iPM Documents.

When changes are so significant that a project must be re-scoped, the scoping process is started again and a new Scoping Report (PM-100) is completed, worksheets are revised/updated, and approved before the project is considered re-scoped. When re-scoping results from public interests, Public Affairs Division is included in the team meeting. All schedule/budget/quality impacts must be documented.

In addition, prior to the signing of plans for right of way (or construction when no right of way is required), the PM will complete (and upload to iPM Documents) a [Scoping Certification Form PM-131](#) stating that the project is within the original scope or provide supporting documentation (including the PM-100 or PM-102) explaining deviations.

**Note** – Neither of the methods discussed above re-baseline a project on Dashboard. The only way a project may be re-baselined is upon approval of the Deputy Chief Engineer. Requests should be submitted to the Central Office PMO. Please see [Changing Baselines on the Dashboard](#) for more information on this topic.

**TOOLS AND RESOURCES:**

- [Project Development Process](#)
- [Scoping Phase](#)
- [IIM-LD-235 – Context Sensitive Solutions](#)
- [IIM-LD-253 – Landscape Architecture Program](#)
- [IIM-LD-255 – Fundamentals of Common Sense Engineering](#)
- [Policy Manual for Public Participation in Transportation Projects](#)
- [Scoping Report](#) (PM-100)
- [Scoping Worksheets](#)
- [Scoping Kickoff Team Meeting Report](#)
- [Request for Traffic Data](#) (LD-104)
- [Request for Design of Bridge](#) (LD-153)
- [Project Change Control](#) (PM-102)
- [Risk Management Form](#) (PM-103)
- [Request for RW Data](#) (PM-104)
- [Final Scoping Certification](#) (PM-131)
- [Quality Control Checklist](#) (LD-436)
- [Project Tasks and Scheduling Guide](#)
- [Electronic Plan Submission Process](#)
- [Dashboard Users Guide](#)
- [Changing Baselines on the Dashboard](#)
- [Comment and Resolution Sheet](#)