

VIRGINIA DEPARTMENT OF TRANSPORTATION

# INSTRUCTIONAL AND INFORMATIONAL MEMORANDUM

GENERAL SUBJECT: PRELIMINARY ENGINEERING PROJECT DEVELOPMENT PROCESS	NUMBER: IIM-LD-226.4
SPECIFIC SUBJECT: PROJECT MANAGEMENT, MILESTONES IN THE PROJECT DEVELOPMENT PROCESS; AND TEAM MEETING GUIDELINES	DATE: AUGUST 20, 2008
	SUPERSEDES: IIM-LD-226.3
CHIEF ENGINEER APPROVAL: Malcolm T. Kerley, PE Chief Engineer Approved August 20, 2008	

Changes are shaded.

---

## CURRENT REVISION

- 
- Changed the name of the Asset Management Division to Maintenance Division and removed "Utilities" from the Right of Way Division.

---

## EFFECTIVE DATE

- 
- This memorandum is effective upon receipt. Please include this memorandum with other policy memorandums from Location and Design, Structure and Bridge, Traffic Engineering, Environmental, Scheduling and Contract, Maintenance, Scheduling and Contract, Right of Way and Materials. The instructions herein have been discussed with the noted Divisions and are to be considered as their instructional memorandum. The instructions outlined will be evaluated every 24 months and revised as may be appropriate.

---

## INTRODUCTION

- 
- Project management and concurrent engineering are inseparable in the development of highway projects at VDOT. Milestone deliverables, quality control/quality assurance, a lessons learned (feedback) mechanism, and software tools are an integral part of this process. This memorandum addresses pertinent aspects of this Preliminary Engineering Program Development process.

- Information related to project management has been removed and is now available at the Project Management Office Team site at:  
[http://www.virginia.gov/business/project\\_management.asp](http://www.virginia.gov/business/project_management.asp) .
- 

## PRINCIPLES OF CONCURRENT ENGINEERING

---

The Concurrent Engineering Process is based on three principles:

- Teamwork – Each discipline that is involved in the project development, including operations, construction, maintenance, Residencies, Local Governments, etc., must function as part of the project team and must commit to the dedication of the necessary resources at the designated times to meet the objectives of the project. The Project Manager is the Project Team Leader and is accountable for the organization of the project team. The Project Manager will coordinate the selection of team members with appropriate discipline managers.
  - Flexibility - The project team must develop a project schedule that fits the needs of the particular project rather than making the project development conform to a rigid outline.
  - Milestones - The project development is built around a sequence of events (milestones):
    - A thorough scoping process that includes the overall concept of how the project will be constructed.
    - A Preliminary Field Inspection that considers maintenance of traffic and sequence of construction.
    - A Constructability Review at each milestone meeting.
    - A Preliminary Utility Field Inspection
    - A Public Hearing based on the major design features of the project including the pertinent aspects of the proposed sequence of construction with its associated right of way impacts.
    - Beginning the right of way processes early in the project development and continuing it concurrently during the subsequent project development.
    - A thorough review of the plans including the proposed sequence of construction and maintenance of traffic, as well as the contract documents, by the entire project team prior to advertisement of the project.
- 

## OBJECTIVE

---

- The objective in implementing this process is to increase the efficiency with which projects are developed at VDOT. Specific goals are to:

- improve the on-time and on-budget delivery of projects,
  - promote concurrent design activities,
  - establish regularly scheduled communication and coordination points throughout the project development process,
  - enable a “team” approach to project development,
  - improve the quality of final project development products and the subsequent design-construction transition.
- 

## IMPLEMENTATION POLICY

---

- All preliminary engineering projects (all project activities prior to physical construction) should conform to the principles of concurrent engineering (including projects administered by Localities).
  - All preliminary engineering projects will have a designated Project Manager.
  - All preliminary engineering projects will have designated team members representing the individual disciplines involved in the project (this may range from a part-time project manager and several team members for a signal installation to a full-time project manager and a large number of team members for an Interstate construction project).
  - There will no longer be a separate designation in iPM for CEP projects – all projects will be considered as CEP.
  - The name of the Project Manager and the team members will be shown on the integrated Project Manager (iPM) site.
- The Project Manager and Project Team will develop and coordinate the project schedule to meet the requirements of these guidelines.
  - New projects will follow these guidelines from the project inception.
  - On-going projects that did not previously conform to the CEP will begin at the current project milestone. A team meeting will convene as soon as practicable to determine how to apply the CEP principles and these guidelines to the remaining project activities. Changes in schedule and the application of other project management techniques must be communicated and instituted prior to the next applicable CEP milestone meeting.

There will generally be a minimum of five team milestone meetings during the Project Development Process for most Interstate, Primary, and Urban projects (“C”&”M”) developed by VDOT. The five milestones are: Scoping Team Meeting, Preliminary Field Inspection Team Meeting, Public Hearing Team Meeting, Field Inspection Team Meeting and Pre-Advertisement Conference (PAC) Team Meeting. These milestone meetings will document the development of the project in accordance with this memorandum. For Secondary projects of significant complexity (significant Maintenance of Traffic, Environmental or Right of way issues) or with ADT’s > 10,000 VPD, a minimum of five team milestone meetings will be required in most cases during the Project Development Process. For all other projects, milestone meetings may be combined, or deleted, as appropriate. However, all appropriate project deliverables must be completed on these projects at the appropriate stages of project development. The Project Manager has oversight for the appropriate number of team meetings being scheduled.