Project Management Processes, Techniques, Tools and Training Matrix

		Project Identification	Pre-Project Work	Project Execution	Verify and Update Project Plan	Project/Phase Close
	Description		This is the process to create a plan of how the project will be managed	This is process to execute the plan	This is the process to validate and/or update the plan as changes happen	This is process to finalize activities and pass on project deliverables and knowledge to the next phase
PM Knowledge Areas		Initiation	**Planning**	**Executing**	**Monitoring & Controlling**	**Closing**

Scope Management

	Project Identification	Planning	Executing	Monitoring & Controlling	Closing
Processes/ Techniques		Document Scope Management Plan Internal Scoping Meeting External Scoping Meeting PM Role in Writing the Scope of Work		Scope Change Process Internal Scoping Meeting External Scoping Meeting PM Role in Writing the Scope of Work	
Tools		Project Scope Statement Project Scoping Report Project Management Plan		Change Control Log	
Training		PMD120, PMD300, ROW100, ROW101	PMD120, ROW100, ROW101	PMD120, PMD300, ROW100, ROW101	PMD120, PMD300, ROW100, ROW101

Schedule Management

	Planning	Executing	Monitoring & Controlling	Closing
Processes/ Techniques	Document Schedule Management Plan	Schedule Guide Processes	Schedule Guide Processes	
Tools	Project Management Plan	Scheduling Software	Change Control Log	
Processes/ Techniques	Consultant Project Schedule Guide Matrix Schedule Guide Processes	Consultant Project Schedule Guide Matrix Contract Time Determination Guidance	Consultant Project Schedule Guide Matrix	
Tools	Scheduling Software	Scheduling Software Contract Time Estimate Tool	Scheduling Software	
Processes/ Techniques	Schedule Quality Processes How to Create a Useful Project Schedule	Schedule Quality Processes How to Create a Useful Project Schedule	Schedule Quality Processes How to Create a Useful Project Schedule	
Tools	Acumen Fuse		Acumen Fuse	
Training	PMD103, PMD108	PMD103, PMD104	PMD103, PMD104, PMD300	PMD300

Cost Management

	Planning	Executing	Monitoring & Controlling	Closing
Processes/ Techniques	Document Cost Management Plan	Estimate Development Process	Cost Change Process	
Tools	Project Management Plan	Risk Based Cost Estimation Three Point Estimating	Change Control Log	
Processes/ Techniques		Invoice Processes PM Role in the Project Work Authorization Invoicing	Invoice Processes PM Role in the Project Work Authorization Invoicing	Invoice Processes PM Role in the Project Work Authorization Invoicing
Tools		Invoice Ledger for Transportation Projects	Invoice Ledger for Transportation Projects	Invoice Ledger for Transportation Projects
Processes/ Techniques	Budget Review Process	Budget Review Process	Budget Review Process	Budget Review Process
Tools	Cost Estimation System	Cost Estimation System	Cost Estimation System	Cost Estimation System
Training		PMD140, PMD141	PMD300	PMD300

Quality Management

	Planning	Executing	Monitoring & Controlling	Closing
Processes/ Techniques	Document Quality Management Plan	PM Role in QA/QC	PM Role in QA/QC	
Tools	Project Management Plan	Review Comments Resolution	Review Comments Resolution	
Processes/ Techniques	Schedule Quality Processes		Schedule Quality Processes	
Tools	Acumen Fuse		Acumen Fuse	
Training	CTR616	CTR616	CTR616	

Resource Management

	Planning	Executing	Monitoring & Controlling	Closing
Processes/ Techniques	Document Resource Management Plan	Team Roles and Responsibilities	Team Roles and Responsibilities	
Tools	Project Management Plan RACI Matrix PM Capacity Tool	RACI Matrix PM Capacity Tool	RACI Matrix PM Capacity Tool	
Training	PMD140, PMD300			

Note: Project Initiation is typically not the responsibility of the Project Manager. This process group includes identification of projects from various sources, programming and identification of funding.

Communications Management

	Planning	Executing	Monitoring & Controlling	Closing
Processes/ Techniques	Document Communications Management Plan	Public Involvement Process	Project Communications Process	
Tools	Project Management Plan	Public Involvement Assistance Environmental Handbook - Public Involvement Environmental Affairs - Public Involvement Toolkit	Communications Log Progress Reports Meeting Agenda and Notes	
Training	ENV413, OPI100, PMD120, PMD108, PMD300, ROW100, ROW101	ENV413, OPI100, ROW100, ROW101	ENV413, OPI100, ROW100, ROW101	ROW100, ROW101

Risk Management

	Planning	Executing	Monitoring & Controlling	Closing
Processes/ Techniques	Document Risk Management Plan	Risk Management Process	Risk Management Process	Risk Management Process
Tools	Project Management Plan	Risk Primer Risk and Issue Register Risk Workshop (Video)	Risk and Issue Register Risk Workshop (Video)	Risk and Issue Register
Training	PMD108, PMD300, ROW100, ROW101	PMD151, ROW100, ROW101	PMD151, ROW100, ROW101	ROW100, ROW101

Procurement Management

	Planning	Executing	Monitoring & Controlling	Closing
Processes/ Techniques	Document Procurement Management Plan	Contract Management and Administration Processes	Supplemental Agreements (SA)	Work Authorization (WA) Closeout Processes
Tools	Project Management Plan	Contract Management System	Indefinite Deliverable SA Review Checklist Specific Deliverable SA Review Checklist	WA Closeout Checklist Provider Evaluation System
Processes/ Techniques	Procurement Planning Processes Provider Selection Contract Development and Negotiation Processes Contract Management and Administration Processes	Invoice Processes	Invoice Processes	Provider Evaluation Process PM Role with Performance Review and Compliance PM Role in the Project Work Authorization Invoicing
	PM Role in Writing the Scope of Work PM Role in Project Work Authorization Negotiations	PM Role in the Project Work Authorization Invoicing	PM Role in Writing the Scope of Work PM Role in Project Work Authorization Negotiations PM Role in the Project Work Authorization Invoicing	
Tools		Invoice Ledger for Transportation Projects	Invoice Ledger for Transportation Projects	
	Provider Evaluation Process	Provider Evaluation Process Provider Evaluation System	Provider Evaluation Process PM Role with Performance Review and Compliance Provider Evaluation System	
Tools	General Guidance on Managing CEI	General Guidance on Managing CEI	General Guidance on Managing CEI	
Training	CTR104, CTR106, CTR620, CTR621, CTR622, PMD108	CTR104, CTR106, CTR621, CTR622	CTR104, CTR106, CTR621, CTR622	CTR104, CTR622

Stakeholder Management

	Planning	Executing	Monitoring & Controlling	Closing
Processes/ Techniques	Document Stakeholder Management Plan	Document Project Stakeholders	Document Project Stakeholders	
Tools	Project Management Plan	Stakeholder Register	Stakeholder Register	
Training	ENV413, OPI100, PMD108, PMD151, PMD300, ROW100, ROW101	ENV413, OPI100, ROW100, ROW101	ENV413, OPI100, ROW100, ROW101	PMD300, ROW100, ROW101

Project Integration

	Planning	Executing	Monitoring & Controlling	Closing
Processes/ Techniques	Document Project Management Plan	Project Kickoff Meeting	Project Status Meetings	Project Closeout Meeting
Tools	Project Management Plan Meeting Agenda and Notes	Kickoff Meeting Checklist Meeting Agenda and Notes	Status Meeting Checklist Meeting Agenda and Notes Action Item Tracking Log	Project Closeout Meeting Checklist Meeting Agenda and Notes
Processes/ Techniques	Document Program Management Plan	Project Documentation	Project Documentation	Project Documentation
Tools	Program Management Plan Issue Log Lessons Learned Register Project Documents Toolkit	Document Control System (ProjectWise) Issue Log Lessons Learned Register Project Documents Toolkit	Document Control System (ProjectWise) Issue Log Lessons Learned Register Project Documents Toolkit	Document Control System (ProjectWise) Issue Log Lessons Learned Register Project Documents Toolkit
Training	ENV413, PMD105, PMD120	ENV413, PMD105, PMD300	ENV413, PMD105, PMD300	ENV413, PMD105, PMD300

PM Training Course Codes and Names

PMD103: Transportation Scheduling Using P6	OPI100: Effective Public Involvement
PMD104: Transportation Scheduling Management Through Project Development	CTR104: Best Value Contract at TxDOT
PMD105: Project Management Discipline Workshop	CTR106: Negotiating TxDOT Contracts
PMD108: Construction Contract Time Determination for Transportation Projects Using P6	CTR616: Consultant Errors & Omissions Collections & Corrections
PMD120: Project Scope Management	CTR620: PEPS Consultant Selection
PMD140: Risk Based Construction Cost Estimating	CTR621: PEPS Contract Negotiations
PMD141: Three-Point Estimating (Time, Quantity, and Cost)	CTR622: PEPS Contract & Work Authorization Management
PMD151: Transportation Project Risk Management	ROW100: Identifying and Managing Utility Conflicts
PMD300: Transportation Project Management at TxDOT	ROW101: TxDOT Utility Coordination
	ENV413: TxDOT Environmental Overview for Engineering Staff