

Project Management Terms	
Term	Description
Baseline	The original plan (for a project or an activity), plus or minus approved changes. Baseline data is used as a reference from which to measure future change.
Baseline Budget	The budget developed by the project team during the scoping process and which is included in the agreed upon project plan.
Baseline Schedule	The schedule developed by the project team during the scoping process and which is included in the agreed upon project plan.
Baseline Scope	The scope developed by the project team during the scoping process and which is included in the agreed upon project plan.
Budget	The financial expectation for the project.
Budget Management	Budget Management includes the processes involved in estimating, budgeting, and controlling costs so that the project can be completed within the approved budget.
Change Management	The process of reviewing all change requests, approving changes, and managing changes to the deliverables, organizational process assets, project documents and the project management plan.
Control	The process of comparing actual performance with planned performance, analyzing variances, developing and evaluating possible alternatives, and taking appropriate corrective action as needed.
Communication Management	Communication Management includes the processes required to ensure timely and appropriate generation, collection, distribution, storage, retrieval, and ultimate disposition of project information.
Corrective Action	Changes made to bring expected future performance of the project into line with the plan.
Cost-Benefit Analysis	A systematic process for calculating and comparing benefits and costs of a project or decision.
Critical Path	In a project network diagram, the series of activities which determine the earliest completion of a project. The critical path is usually defined as those activities with float less than or equal to a specified value, often zero.
Decision Document	Any document that requires an approval at a higher authority level than the project manager. Usually, approval of decision documents denotes a project milestone.
Design Group	A grouping to tie a design project to other associated real estate, railroad, utility, construction, or other projects (e.g. planning, administration, traffic, etc.) that may compose a particular improvement.
Earned Value	A method for measuring project performance. It compares the amount of work that was planned with what was actually accomplished to determine if cost and schedule performance is as planned.
Estimate	An assessment of the likely quantitative result. It is usually applied to project costs and durations and should always include some indication of accuracy, e.g., + or - 15%. Usually used with a modifier, e.g., preliminary, conceptual, feasibility. Some application areas have specific modifiers that imply pre-set accuracy, e.g., order of magnitude estimate, budget estimate.
Flowchart	A type of diagram that represents an algorithm or process showing the steps as boxes of various kinds and their order by connecting them with arrows.
Forecasting	The use of historic data to determine the direction of future trends.
Functional area	An organization structure in which staff are grouped by specialty.

Functional Manager	A person with sufficient authority who is responsible for project management in a specialized section, e.g., planning, design, real estate, utilities, survey, construction, maintenance, etc.
Knowledge Area	A knowledge area is defined by its knowledge requirements and described in terms of its component processes, practices, inputs, outputs, tools, and techniques.
Lag	A modification of a logical relationship which directs a delay in a successor task.
Lead	A modification of a logical relationship which allows an acceleration of the successor task.
Life Cycle	The particular stage of development an improvement project is currently at with respect to budget estimate and schedule date. Life cycles are milestones that establish points in time when costs and encumbrance dates are updated, with increasing accuracy.
Milestone	A significant event in the project, usually completion of a major deliverable.
Monitoring	The capture, analysis, and reporting of project progress, usually as compared to the project plan.
Preliminary	Prior to or preparing for establishment of the baseline. Always used as a modifier, e.g. preliminary budget, preliminary schedule, preliminary scope, etc.
Primary Point of Contact	The focal point, center, or "hub" of all project related communication. This is the project manager. All project team members, management, internal and external stakeholders are aware of who to contact with questions, concerns, and information about the project. The project manager will respond or is responsible to assure that a response is made. This is to ensure the multiple layers of communication converge with the project manager.
Procurement Management	Procurement management includes the processes necessary to purchase or acquire products, services, or results needed from outside the project team.
Progress	Development to a more advanced state. Progress relates to a progression of development and therefore shows relationships between current conditions and past conditions.
Project	A well-defined sequence of activities that, when completed, result in a tangible product. Tangible products can include: wetland bank plans, right-of-way plats; signing, marking, and signal plans; maintenance plans; pavement reports; etc.
Project Management	The application of knowledge, skills, tools, and techniques to project activities in order to meet or exceed stakeholder needs and expectations. Project management emphasizes planning, monitoring, and managing project delivery activities and resources to deliver the right project, at the right time, within budget and with agreed level of quality.
Project Management Plan	A Project Management Plan is the accumulation of nine separate management plans, each based on a knowledge area.
Project Management Process	<p>Initiating Process: recognizing a need exists and that a project is required to address that need.</p> <p>Planning Process: devising a workable plan to accomplish the need that the project was undertaken to address.</p> <p>Executing Process: coordinating people and other resources to deliver the project according to the plan.</p> <p>Controlling Process: ensuring that project objectives are met by monitoring, measuring, and analyzing progress and taking corrective action when necessary.</p> <p>Closing Process: formalizing acceptance of the project and bringing it to an orderly end.</p>
Project Management Software	Computer programs and related data used as tools in performing project management functions.

Project Manager	The person having primary responsibility over the scope, schedule, budget, resources and overall project quality. The project manager will consider advice and alternative solutions from team members, functional managers, and central office support units to meet the project objectives.
Project Phase	Periods of time during which certain deliverables should be completed for a project. Project phases generally correspond to the time periods between FIIPS life cycle updates.
Project Management Plan	A document or a collection of documents that explains how a project will be accomplished. Its primary uses are to document planning assumptions and decisions, to facilitate communication among stakeholders, and to document approved baseline scope, cost, and schedule. Project plans must be agreed to by everyone involved in the planning process. For design projects the planning process is called the 'scoping process'.
Project Team	An interdisciplinary team made up of staff from departmental functional areas in bureaus and regions as well as external stakeholders as appropriate to the scope of the project. The project team is lead by the project manager and works together to create and carry out the project plan. Individual team members may be active or inactive as the project progresses through different phases.
Prototype	An early sample or model built to test a concept or process or to act as a thing to be replicated or learned from.
Quality Management	The processes and activities of the organization that determine quality policies, objectives, and responsibilities so that the project will satisfy the needs for which it was undertaken.
Reserve	A provision in the project plan to mitigate cost and/or schedule risk. Often used with a modifier (e.g., management reserve, contingency reserve) to provide further detail on what type of risk are meant to be mitigated.
Resource	The people, equipment, materials and funding required or available for the project.
Resource Management	Resource management includes the processes that organize, manage, and lead the project team.
Review	To examine critically to determine suitability or accuracy as measured against the project plan.
Risk Management	Risk management include the processes of conducting risk management planning, identification, analysis, response planning, and monitoring and control of a project.
Schedule	The planned dates for performing activities and the planned dates for meeting milestones.
Schedule Management	Schedule Management includes the processes required to manage timely completion of the project.
Scope	The work content and products of a project or component of a project. Scope is fully described by naming all activities performed, the resources consumed, and the end products that result, including quality standards. A statement of scope should be introduced by a brief background to the project, as well as the general objectives.
Scope Management	Scope Management includes the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully.
Stakeholder	Individuals, organizations, and agencies that are involved in, may be affected by, or can influence project activities. Example: residents and businesses, school district, politicians, environmental review agencies, travelling public, land owners, FHWA, local government, etc.
Stakeholder Management	Stakeholder Management includes the processes required to engage project stakeholders in the key decisions and activities associated with the project.

Work Breakdown Structure (WBS)	A deliverable-oriented grouping of project elements which organizes and defines the total scope of the project. Each descending level represents an increasingly detailed definition of a project component. Project components may be products or services.
-----------------------------------	--

Project Management Acronyms		
(also see https://webapp.dot.state.wi.us/acronyms/)		
Acronym	Name	Description
CARS	Contract Administrative Reporting System	WisDOT system for consultant contract data.
CDR	Concept Definition Report	The initial planning document that contains project location and type.
CMM	Construction and Materials Manual	A manual that provides policy, procedural requirements, and guidance encompassing the construction administration process within the WisDOT, DTSD.
DEC	Delivery Estimate Calculator	Located in the PMP budget module; calculates the total delivery cost estimate for the project.
DSR	Design Study Report	WisDOT document that includes the decisions and rationale for decisions in the development of an improvement project.
DTIM	Division of Transportation Investment Management	Responsible for statewide planning, financial management, data collection and analysis, transit, local roads, rails and harbors and aeronautics.
DTSD	Division of Transportation System Development	Region and statewide bureaus responsible for the planning, design, construction and maintenance of the WisDOT improvement program.
FDP	Facilities Development Process	A series of activities that leads to the development of a highway improvement project.
FDM	Facilities Development Manual	A manual that provides policy, procedural requirements, and guidance encompassing the facilities development process within the WisDOT, DTSD.
FIIPS	Financial Integrated Improvement Programming System	Planning application that is intended to facilitate the business process of planning, scheduling, estimating, funding and keeping track of changes to transportation improvement projects.
FOS	Financial Operating System	WisDOT accounting system.
HSIS	Highway Structures Information System	WisDOT structure inventory system.
MAPSS	Mobility, Accountability, Preservation, Safety, Service	WisDOT's Performance Improvement Program intended to enhance our mission, vision and values by providing a way to actually measure our performance
MIIP	Management Information for the Improvement Program	A query and reporting tool that is connected to the financial data warehouse.
NEPA	National Environmental Policy Act	A law that establishes a U.S. national policy promoting the enhancement of the environment.

PDS	Project Development Section	Responsible for delivery of the improvement program using both in-house and outsourced resources and development and maintenance of the standards, policies and guidance associated with said work.
PMBOK®	Project Management Body of Knowledge	An inclusive term that describes the sum of knowledge within the profession of project management.
PMIC	Project Management Information Center	WisDOT data source tuned for reporting improvement project information.
PMM	Program Management Manual	A manual that provides policy, procedural requirements, and guidance encompassing the highway program development process within the WisDOT, DTIM.
PMP	Project Management Plan	Used interchangeably for both (1) the collection of documents and information known as the project management plan and (2) a web-based tool for entering data to manage a project.
PS&E	Plans, Specifications, and Estimate	The documents that are turned into a proposal for a bid letting and the documentation that verifies all requirements have been met to allow the project to be advertised for bid.
RCIS	Railroad Crossing Information System	WisDOT railroad crossing database tracking detailed physical and operational characteristics of railroad crossings.
READS	Real Estate Automated Data System	WisDOT system for real estate data.
SPO	Systems Planning and Operations	Manages programs, corridors, access management, collection and management of corporate transportation facility condition data, coordination with Metropolitan Planning Organizations, Regional Planning Commissions and local units of government for the administration of state and federal planning funds and development of long range transportation plans and development and implementation of statewide transportation plans.
TEAL	Time, Expense, Activities, Leave	WisDOT electronic time sheet system.
TPMS	Transportation Project Management System	The TPMS is an inclusive term that refers to all things highway improvement projects management. The TPMS includes the applications, reports, training, processes, documentation, support, etc. that are needed to manage WisDOT improvement projects.
TSS	Technical Services Section	Provides technical support for real estate, geotechnical, pavement, quality assurance, utilities, access, survey and mapping, environment, rails, harbor, and all administrative services.

TUMS	Transportation Utility Management System	WisDOT system designed to assist Utility Coordinators with the identification of utility facilities impacted by future highway construction projects, followed by the management and tracking of utility coordination.
------	--	--

PROJECT MANAGEMENT SOFTWARE TOOLS

The Project Management Unit (PMU), under the direction of the Project Management Steering Committee, periodically reviews the tools used to meet the objectives of the Transportation Project Management System (TPMS). A review was completed in 2007, which analyzed only the tools that are currently deployed by WisDOT.

The primary focus of the 2007 tools team was to review the best practices that have been identified from the Marquette Interchange project, complete an analysis of the tool requirements needed to implement those best practices on a broader scale, describe how the Primavera software relates to and is coordinated with other tools and develop a recommendation on using Primavera software on other projects. A primary goal of the TPMS is to capture all project data in corporate databases to facilitate program level reporting. All tools and processes should lead us to this goal.

The tool review included both design and construction, and developed project-based recommendations on the appropriate tools to use for:

- Scoping
- Scheduling
- Document Management
- Issues Management
- Cost Tracking
- Cost Projections

The following table lists software tools analyzed in the review:

SOFTWARE	DESCRIPTION
Contract Management (Primavera)	A cost/project management tool for managing multiple complex projects in terms of a common platform for communicating and managing documents, budgets, expenditures, and pending changes. Contract Management can organize all elements of communication and documents received or sent regarding a project. The software creates links between each communication/document to create strings regarding a single point of discussion including costs, timing, and responsibility.
P6 (Primavera)	A scheduling tool for managing multiple complex projects and providing accompanying critical path analysis and “what-if” scenario analysis. P6 has scheduling capabilities that are precise in providing schedule float (positive or negative) based on Critical Path Method (CPM). It is supported by a group of guidelines and templates that ensure consistent application of the scheduling capabilities.
Design PMP (Project Management Plan application)	A WisDOT tool used for tracking an improvement project from scoping through award. PMP is a web application that provides a detailed scope that is tied logically to budget and schedule. The budget allows for in-house and consultant delivery budget items for both design and construction and also provides a location to update the LET and NON-LET project IDs. The design schedule portion is logic driven, based on normal project progression. PMP is not based on CPM, allowing the project manager full discretion and greater flexibility in managing the schedule.
MIIP (Management Information for the Improvement Program)	A WisDOT reporting tool for improvement projects that allows project managers to run reports for specific projects. MIIP cost reports combine information from our current budget systems (FIIPS and PMP) and compares it to our actual cost budget systems (EAPS and FOS) combined with reported progress on projects to create delivery forecasts.
FIIPS (Financial Integrated Improvement Programming System)	Planning application that is intended to facilitate the business process of planning, scheduling, estimating, funding and keeping track of changes to transportation improvement projects.
BOXI (Business Objects XI)	An enterprise reporting tool used by WisDOT, which enables users to develop standard and ad-hoc reports using tools that support reporting, querying, and analysis.

The 2007 tool review team recommends that the following matrices be used when determining which project management tools should be employed. The tool selection process will address Reconstruction and Expansion projects, the gray area in the matrices, which may meet the criteria for using Primavera (P6/Contract Management) software.

Highway Improvement Types / Deliverables	DESIGN PROJECTS				
	Scheduling	Document Management	Issues Management	Cost Tracking	Cost Projections
Mega Projects	P6	Contract Management			
Reconstruction and Expansion Projects	Refer to Tools Selection Process Most projects will utilize the tools listed in the bottom row				
All other improvement types	Design PMP	File/Document Management Structure	Existing procedure	MIIP/BOXI	MIIP/BOXI

Highway Improvement Types / Deliverables	CONSTRUCTION PROJECTS				
	Scheduling	Document Management	Issues Management	Cost Tracking	Cost Projections
Mega Projects	P6	Contract Management			
Reconstruction and Expansion Projects	Refer to Tools Selection Process Most projects will utilize the tools listed in the bottom row				
All other improvement types	Contractor Schedule per Standard Specs	File/Document Management Structure	PCEE Recommendation	MIIP/BOXI	BOXI

Tool Selection Process:

The Project Management Unit (PMU), under the direction of the Project Management Steering committee, has developed recommendations on the appropriate tools to use for these project management processes:

- Scoping
- Scheduling
- Document Management
- Issues Management
- Cost Tracking
- Cost Projections

Most projects, including those in the Majors and State Highway Rehabilitation programs, will utilize Design PMP, MIIP, and other existing tools (LAN standard directory structure, Outlook, project journals and diaries). P6 and Contract Management will be used where mandated on Mega Projects.

When considering tools for Reconstruction and Expansion projects:

P6 (Scheduling) should be considered for any complex project in cases where the following criteria far exceed normal levels:

- Project Risk
- Public Interest
- Volume and complexity of work being completed concurrently
- Resource demand - is enough value gained to warrant added resources to run/maintain P6
- Team resource and process issues specifically relating to TSS, SPO, Statewide Bureaus, etc.
- Reporting Requirements

Contract Management (Document Management, Issue Management, Cost Tracking, Cost Projections) should be considered for any complex project in cases where the following criteria far exceed normal levels:

- Project Risk
- Public interest
- Political sensitivity

- Cost implications