



Minnesota Department of Transportation

# Work Package Creation and Maintenance Process

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## TABLE OF CONTENTS

1.0	General Information .....	2
2.0	Process Summary .....	2
2.1	Creating a Work Package .....	2
2.2	Updating a Work Package .....	3
3.0	Developing Work Packages .....	3
4.0	Developing Templates .....	8
5.0	Updating Released Work Packages and Templates.....	8
6.0	Appendix.....	11
6.1	Work Package and Template Frequently Asked Questions .....	11
6.2	Version Control .....	12
6.3	Activity ID Prefix .....	13
6.4	QA/QC Form.....	22
6.5	P6 Enterprise Comment and Change Form .....	23

## 1.0 GENERAL INFORMATION

The purpose of this document is to outline the process for P6 work package/template development and maintenance to promote consistency in the creation, release, and communication of P6 work packages and templates.

A work package is a group of activities to generate specific project deliverables for a functional group or work type.

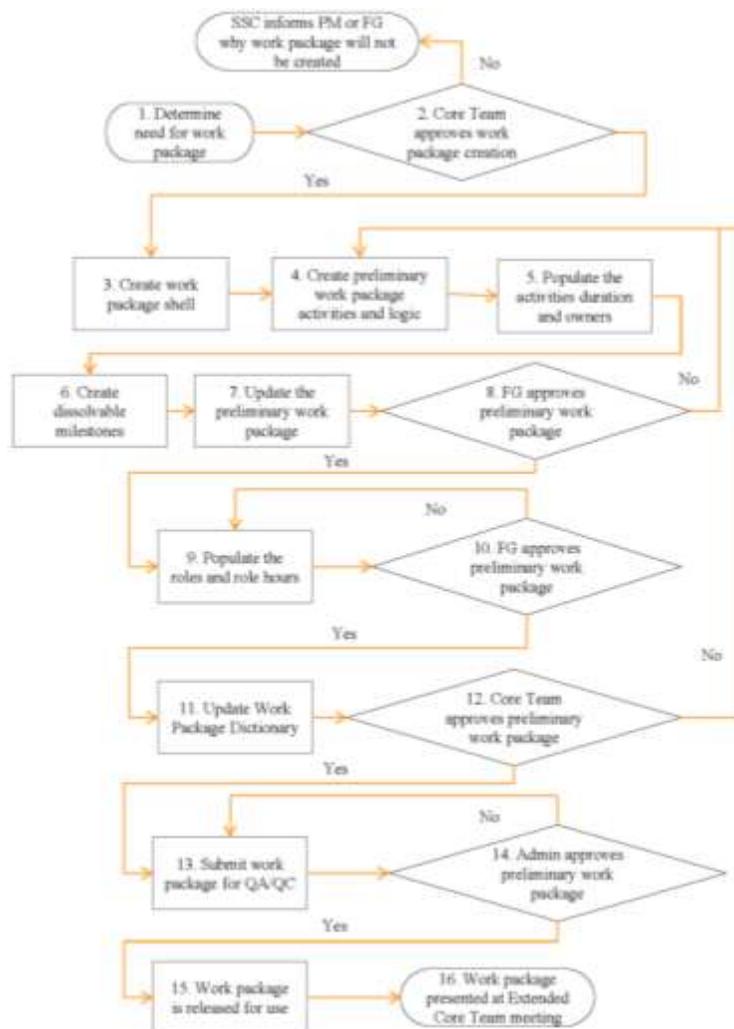
A template is a group of work packages. Templates are a tool used by schedulers to expedite schedule creation and are only developed for frequently used processes. All templates must be approved by the Template Group.

Frequently Asked Questions regarding Work Packages and Templates are summarized in [Appendix 6.1](#).

## 2.0 PROCESS SUMMARY

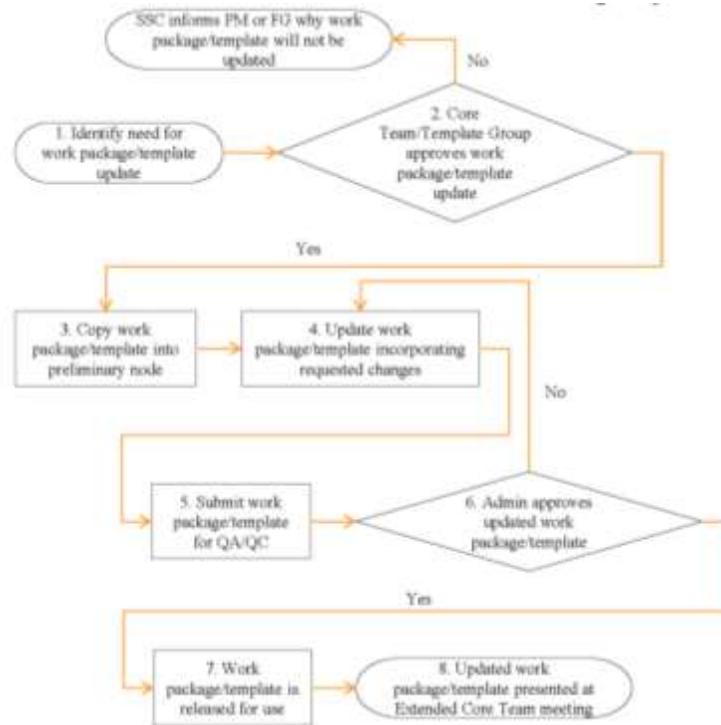
### 2.1 CREATING A WORK PACKAGE

See [Section 3.0](#) for process details and work package creation responsibilities.



## 2.2 UPDATING A WORK PACKAGE

See [Section 5.0](#) for process details and work package creation responsibilities.



## 3.0 DEVELOPING WORK PACKAGES

This section details the steps implemented to create a work package.

### 1. Determine need for work package

PM or Functional Group requests a new work package to the SSC.

The work package must be a node in the [Master WBS](#) in P6. If the work package is approved for creation and it is not a node in the Master WBS, the node must be added to the WBS.

If a node is to be created, SSC submits [P6 Enterprise Comment and Change Form](#) for consideration with the following information:

Threshold criteria for the work package

A list of related work packages/templates that may be impacted by the creation of the work package

### 2. Approve work package creation

Core Team will determine if work package needs to go to Template Group for approval. If approved, a scheduler is assigned to develop the work package. If the work package is not approved, SSC will inform the PM or Functional Group why the work package will not be created.

### 3. Create work package shell

Scheduler requests Admin to create work package shell in Preliminary Templates – Work Packages node (PRELIM.TMPLT or TMPLTWP) of P6.

Scheduler provides a work package name. The work package name must be in conformance with the authoritative WBS. If the authoritative WBS does not have a node for the package, the authoritative WBS will be modified to incorporate the new work package.

Admin will assign an alphanumeric template number using the following naming convention:

TMPLXXXX-P: TMPL indicates that it is a work package, XXXX is a numeric field assigned by Admin, -P indicates that the work package is in the preliminary node and has not gone through the QA/QC process.

### 4. Create preliminary work package

Scheduler works with functional groups to identify the activities and the logical sequence between them.

A project champion will be assigned from the Functional Group. Scheduler will update the P6 Project Code MnDOT WPkg Champion. If the champion is not identified as a project code value, notify Admin to have that person added to the list. “MnDOT Version Control” notebook topic will also hold the name of the work package champion.

Scheduler will evaluate related work packages that may be impacted by the creation of the work package and submit a [P6 Enterprise change request](#) for the required updates.

Identify activities and logic needed to represent the work. Care should be taken that the total number of activities in a work package does not make it too cumbersome for activity owners to update in Team Member.

Activity level constraints, lags, and leads are not allowed in the work packages. All activities, except dissolvable milestones, will have the appropriate code value assigned to “MnDOT Functional Group”.

The Activity ID alphanumeric naming convention is:

AAAXXXX: AAA is a prefix based on the WBS name and XXXX is a numeric field.

For example: LAY1040 Prepare Preliminary Geometric Layout & Profile

See [Appendix 6.3](#) for the three letter prefix and associated work packages.

### 5. Populate the activity duration and owners

Scheduler works with the functional group to determine each activity’s duration and owner.

Activities should generally be in the 5-20 day range. However, activities can fall outside of these thresholds as long as there is a clear deliverable represented and there is the appropriate amount of detail to manage the work.

Activity duration on a work package will be based on the most likely number of days the activity would take on an average project. Durations can be scaled during the baselining process.

## 6. Create dissolvable milestones

Scheduler will determine the relationships that connect to other work packages and templates and identify these relationships in the work package using dissolvable milestones.

Dissolvable milestones will be in a WBS node titled “Dissolvable Milestone (Dissolve after relationship linked & remove node from WBS)”.

Dissolvable Milestones will use the following Activity ID naming convention:

**ZZZAAAXXX:** ZZZ indicates that it is a dissolvable milestone and AAAXXX is the Activity ID the milestone is linking to.

For example: ZZZPLN9000 will tie to the activity Prepare 90% Plans

Dissolvable Milestone Activity Name will match actual activity name in the template/work package to aid in connecting the relationships. The name will be modified to indicate either pred/succ and include relationship type and template/work package in which the activity resides in.

For Example: Succ: Prepare Preliminary Geometric Layout & Profile (FF) (Project Template) indicates that the activity in the work package will have the successor activity LAY1040 Prepare Preliminary Geometric Layout & Profile from the Project Template with a finish-finish relationship.

If the logic is conditional, that information should also be included in the activity name.

For Example: If EDD2 is needed, Succ: Prepare & Submit EDD 2 (FS) (Environmental Due Diligence 2))

Scheduler will link relationships between temporary activities and work package activities.

Each dissolvable milestone will have an open end that will get linked to the permanent activity.

Dissolvable milestones may be duplicated if they represent multiple relationship types. In this case, the Activity ID will be modified to include a “-1” as a suffix. For example, if the same dissolvable milestone is both a predecessor and successor to an activity in the work package, it must be created twice.

## 7. Update the preliminary work package

Scheduler will review the [PPMS Network Activity Manual](#) to compare predecessors, successors, thresholds, work tasks, functional groups for the work package to the equivalent activity in the PPMS Manual.

Schedulers will identify calendars, functional group roles, and budgeted units (Role Hours) for activities. See [RD-00-03 Calendar Dictionary](#) for calendar information. See [PD-00-08 Role Loading](#) for information on role loading.

Scheduler will obtain [RD-00-09 Work Package Dictionary](#) information and include it in the appropriate notebook topics and codes in P6 for the work package.

The following items will be included in the *Work Package Dictionary*:

**WBS Node:** Authoritative WBS node for work package

**Work Package Name:** Authoritative WBS node name

**Work Package ID:** 8 digit alpha-numeric code assigned by Admin

**Organization and Functional Group:** Contact information for the functional group/office that is responsible for this work package.

**Threshold Criteria:** An explanation of why and when this work package is needed in a project schedule.

**Deliverable(s):** An explanation of the deliverable(s) produced by this work package.

**Notes:** Any additional guidance the responsible person/office would like to provide.

**Gantt Chart:** A pdf of the Template/Work Package Printout layout.

**Activity Owners:** Ownership assignment guidance so the appropriate Team Member user is assigned to each activity.

#### 8. Approve preliminary work package

Scheduler will obtain buy-in from the functional group on activities, duration, activity owner and logic.

#### 9. Populate the roles and role hours

Scheduler will work with the functional group to estimate roles and role hours needed on each activity.

Activities in a work package will be role loaded based on estimated hours required to complete the work and appropriate roles from the role tree for a typical project. The estimated hours worked will be added as Budgeted Units and duration is added for the anticipated number of days it will take to complete the activity.

The work package/template may be loaded with generic roles and estimated budget units (hours) if the functional group requests a starting point for finalizing the roles loading for the work package. Admin will update the work package with generic roles and role hours if it is required.

Admin created a master spreadsheet tool to facilitate role loading of P6 schedules. See [RD-00-10 Process Used to Develop Role Loaded Templates](#) for additional information on the empirical method used.

- a. Scheduler and Admin will review the work package activities to determine initial roles, role hours and durations using the role loading tool. See [RD-00-10 Process Used to Develop Role Loaded Templates.doc](#) and Role Loading an Activity Section in the appendix of [PD-00-08 Role Loading](#).
- b. Scheduler will review the generic roles, role hours and durations with the functional group responsible for the work package/template.
- c. Scheduler will update the roles, role hours and durations in the work package/template. See Role Loading an Activity Section in the appendix of [PD-00-08 Role Loading](#)

#### 10. Scheduler will obtain buy-in from the Functional Group on role estimates

Scheduler will insert date of approval under the MnDOT WPKG Functional Group Accepted UDF.

Scheduler populates the Description in the Project Notebook topic with appropriate guidance information.

### **11. Update Work Package Dictionary**

Scheduler submits Work Package Dictionary data (outlined in step 5f) to Admin.

Admin will update the Work Package Dictionary.

### **12. Obtain Core Team Approval**

Scheduler and Functional Group present the completed work package to the Core Team.

Scheduler contacts Admin Team to get on the Core Team agenda.

Scheduler will provide printouts of the Work Package Dictionary information and the following layout reports: MnDOT Work Package Review Gantt Chart (activity layout), MnDOT Work Package Role Hour Review (resource assignments layout), and MnDOT Role Review by Role (Functional group style report).

Scheduler and Functional Group update work package to resolve Core Team comments.

Scheduler will present related work packages that may be impacted by the creation of the work package.

### **13. Submit work package for quality control/quality assurance (QC/QA) check**

Scheduler notifies Admin that work package is ready for quality control check and provides Admin with pdfs of the following layout reports: MnDOT Work Package Review Gantt Chart (activity layout), MnDOT Work Package Role Hour Review (resource assignments layout). See [FM-00-02\\_QC-QA checks for work packages.docx](#) for QC/QA checklist.

Scheduler updates work package to resolve QC Team comments.

Admin will perform QA check.

Scheduler updates work package to resolve QA Team comments.

Scheduler notifies Admin that all comments are resolved and work package is ready to be issued.

### **14. Admin approves work package**

Admin will confirm all changes have been addressed.

Admin updates the MnDOT Version Control notebook topic in P6 that QC and QA have been completed. (See [Section 6.2](#))

### **15. Work package is released for use**

Scheduler coordinates with Admin to update impacted work packages and/or insert revised work package into impacted templates. (See [Section 5.0](#))

Admin will remove the “-P” from the Project ID and move the work package into the Authoritative Work Package Template (AUTH.WRKPKG.TMPLT) node of the EPS.

Admin team will confirm the version control information is acceptable (See [Section 6.2](#)) and upload the work package to the authoritative node.

**Updated 20150309**

Admin will send an email to Extended Core Team notifying them that a new work package has been released.

**16. Work package is presented at Extended Core Team meeting**

Admin will schedule presentation of work package at Extended Core Team meeting.

Scheduler and Functional Group will present the approved work package at the Extended Core Team meeting. The work package champion and associated SSC staff will prepare the material to be presented.

## 4.0 DEVELOPING TEMPLATES

Templates will be developed following the process outlined for work packages in [Section 3.0](#) with the following exceptions:

1. If the need for a new template is identified, it must receive approval by the P6 Core Team or template group before being developed.
2. Scheduler requests Admin to create work package shell in Preliminary Templates – templates node (PRELIM.TMPLT, TMPLTPR) of P6
  - a. Admin will assign an alphanumeric template number using the following naming convention:  
  
TEMPXXXX-P: TEMP indicates that it is a Template, XXXX is a numeric field assigned by Admin, \_P indicates that the work package is in the preliminary node and has not gone through the QA/QC process
3. The template champion may have to coordinate the efforts of multiple functional groups.

## 5.0 UPDATING RELEASED WORK PACKAGES AND TEMPLATES

Changes to work packages will not be made without the approval of the functional group owning the work package.

Changes to templates will not be made without the approval of the P6 Core Team or template group. The process to update a work package or template is:

**1. Submit request to updating release work package/template**

SSC, PM or functional group will identify which work packages/templates need to be updated and notify Admin.

SSC will create a list of related work packages and templates that will be impacted from the updates made to the work package/template. The list will be given to Core team before the work package/template revisions are presented to Core Team.

SSC downloads the [P6 Enterprise Comment and Change Form](#) from the P6 website. See [Appendix 6.5](#) for sample form.

SSC will complete the top portion of the form and submits the form to Admin.

**Updated 20150309**

Admin will register the comment in the comment log and store the form on the N drive at [P6 Comment Log](#) using the following naming convention: YYYY-ZZZZZ.

Where YYYY = is the sequential log number, ZZZZZZ = Description of request.

**2. Present the P6 Enterprise Comment and Change Form for consideration**

Admin will present the P6 Enterprise Comment and Change Form to the Core Team/P6 Template Group for approval.

Admin will document the resolution on the comment form, resolve the comment in the work package/template and update the comment log information.

Admin will return a completed copy of the P6 Enterprise Comment and Change Form to SSC.

Minor corrections in activity coding and logic ties within the work package/template do not need to be presented to the Core Team/P6 Template Group for approval.

Addition of activities, changes in duration, and dissolvable milestone modifications will be presented to Core Team and/or Template Group.

If approved, a scheduler is assigned to update the work package/template. If work package/template is not approved, SSC will inform PM or Functional Group why the work package/template will not be updated.

**3. Copy work package/template into preliminary node (PRELIM.TMPLTPR or PRELIM.TMPLTWP).**

Scheduler will request Admin place a copy of work package/template in the preliminary node.

Admin copies the requested work package/template. This retains the MnDOT notebook topics for version control.

Do not cut the work package/template from the authoritative node. The work package/template must remain available for use until the changes have been approved.

Admin re-names Project ID Suffix to -P indicating that the work package/template is being modified, updates responsible manager to "Preliminary Templates", and verifies P6 Project Status is "Inactive"

**4. Scheduler updates the work package/template incorporating requested changes**

Scheduler makes the necessary changes to the work package/template in the preliminary node in P6.

Scheduler confirms updates made to incorporate the requested changes are acceptable to the person requesting the changes.

Scheduler reviews other work packages that may be impacted by the changes and updates the appropriate work packages/templates.

Scheduler records the changes incorporated and the date the Functional Group approved the changes in MnDOT Version Control notebook topic. (See [Section 6.2](#))

**5. Scheduler submits the work package/template to Admin for QC/QA.**

Admin completes QA/QC on the revised work package/template. (See [Section 6.4](#) for QA/QC Form)

Scheduler resolves all QC/QA comments and returns work package/template to Admin.

**6. Approve updated work package/template**

Admin confirms changes have been made and updates the MnDOT Version Control notebook topic.

**7. Work package/template is released for use.**

When QA is verified as complete, Admin will confirm the version control information is acceptable (See [Section 6.2](#)), archive the work package/template in the authoritative node and replace it with the revised work package.

Note a work package/template will be archived each time a new version is authorized. Admin will evaluate the number of archives within P6 and export (XER) the older archived work package/template versions if necessary. The XER files will be maintained on the N Drive at [N:\OPMTS Project Management\Project Management Unit\P6 Implementation\Admin Archive\Work Package Archiving](#).

To archive a work package/template:

Admin will export .xer of “-A” Project ID within Archive node (ADMINARCH, TMPLT-AUTH) to avoid duplication.

1. Select “File; Export”
2. Export to N: Drive Folder called “Work Package Archive”
3. Update Log within Work Package Archive folder on the N drive

Admin moves old authoritative work package/template to archive node (ADMINARCH, TMPLT-AUTH) in P6

1. Select “Cut” on Authoritative template EPS node (AUTH.WRKPKG.TMPLT) and “Paste” it into the Work Package Archive (ADMINARCH, TMPLT-AUTH)
2. Re-name Project ID Suffix to -A
3. Add the date on which it was moved to the archive node to the project name (e.g. 20150109)
4. Open the work package and change Responsible Manager to “Admin Archive”

Admin replaces Authoritative work package/template from Preliminary node (PRELIM.TMPLT, TMPLTWP)

1. Select “Cut” on finalized work package within Preliminary Templates node (PRELIM.TMPLT, TMPLTWP) and “Paste” the work package into Authoritative node (AUTH.WRKPKG.TMPLT)
2. Change Responsible Manager to “Authoritative Templates”

3. Add Notebook Topic for MnDOT Version Control on authoritative template as follows:  
(–Name - Date –“Moved from Preliminary into Authoritative Node” (Example: John Smith 1/1/2015 Moved from Preliminary into Authoritative Node))
4. Update UDF MnDOT Template/WPkg Version Date to the date the template/work package was moved from the preliminary to the authoritative node.

#### 8. Work package/template is presented at Extended Core Team meeting

Admin will schedule presentation of work package/template at Extended Core Team meeting.

Scheduler and Functional Group will present the approved work package at the Extended Core Team meeting. The work package champion and associated SSC staff will prepare the material to be presented.

## 6.0 APPENDIX

### 6.1 WORK PACKAGE AND TEMPLATE FREQUENTLY ASKED QUESTIONS

#### What is the Difference between a work package and template?

A work package is a group of activities required to produce a deliverable for a project. For example, if a project requires replacing a bridge, the PM will pick the “New Bridge” work package. The P6 schedule is created by combining different work packages.

A template is a combination of frequently used work packages. Templates are used to minimize the amount of time it takes a scheduler to create a new schedule.

#### How do I find the work packages and templates?

[RD-00-09 P6 Work Package Dictionary](#) provides a list of all existing and undeveloped work packages and templates. The Work Package Dictionary provides a description of each work package, when to use the work package, deliverable, and functional group responsible for the work package.

All of the work packages are also shown in the [Master Work Breakdown Structure](#).

#### What is a Dissolvable Milestone?

A dissolvable milestone is a temporary activity that tells the SSC scheduler how to connect the work package to the templates and other work packages (see [PD 10-01 Schedule Creation and Baseline](#) document appendix “Adding a Work Package”). Once the schedule is built, these milestones disappear.

The dissolvable milestones also help Project Managers understand how the work package connects into schedule, without having to be a P6 expert

## How do I include the work package in my schedule?

For new projects, fill out the [Schedule Initiation form](#) on the [Project Management Website](#). The form allows you to select the work packages you need for your project.

For projects with existing schedules, The Project Manager will work with the functional groups to determine if a new work package needs to be added. The SSC will only update schedules if requested by the Project Manager.

## Can I Modify the Templates and Work Packages for a project?

Use the standard templates and work packages as much as possible for consistency, reporting, auditing and working across multiple functional groups.

You can modify templates and work packages to meet project specific needs, but with the following limitations:

- The standard [Master Work Breakdown Structure](#) (WBS) cannot be changed or modified without approval of the P6 Core team or Template Group, but additional work packages or nodes below the WBS may be added.
- Master WBS nodes must not be deleted. Schedulers will use the “hide if empty” checkbox in the group and sort window of P6 if you do not want them to show up on the layouts.
- Do not modify a functional group (District or CO) work package without consulting the owner of the work package.
- Any new activities need to be added by the SSC in accordance with [P6 Schedule Creation and Baseline Process](#).

## Can I make my own templates for use?

No, consistent work package and template formatting is required for reporting and auditing. If a new template or work package is required, contact your SSC. The SSC can create and propose new templates and work packages using the process outline in this document to a statewide committee for consideration. Each new template will go through a QC/QA process for consistency with the P6 enterprise system before implementation.

## Are the work packages compatible with PPMS type schedules?

Yes, but the dissolvable milestones were not developed for easy incorporation into PPMS type schedules. The PM and SSC will need to determine the appropriate links if using a PPMS schedule.

## What if the templates/work packages are wrong?

Contact your SSC immediately. The SSC will provide the comments back to the P6 Administration team so the template and work package can be corrected. The P6 Administration team will work with the functional office and statewide groups to make the corrections following the process in this document.

## 6.2 VERSION CONTROL

After the modifications to the work package/template are complete, the version date (“MnDOT Template / WPkg Version Date Column) of the work package/template will be updated to include the latest date of the revisions. The

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notebook topic ‘MnDOT Version Control’ must include the scheduler’s name responsible for the changes, the date the change was made, and a summary of the modifications.

**Version Control Process**

Once the work package/template has been approved, the following version control documentation process must be followed.

1. Update the MnDOT version control notebook topic.
  - a. Write the name of the work package/template owner and the date that the work package was accepted.
  - b. Write the scheduler’s name and date when the work package was built into P6.
  - c. Capture any further modifications in the same convention.
  
2. Update the ‘MnDOT Template/ WPkgVersion Date’ column to include the most recent date the work package/template has been revised and moved into the authoritative node. *Note: This must match the date in the ‘MnDOT Version Control’ notebook topic of when the work package was moved from the Preliminary Node to the Authoritative Node.*

**6.3 ACTIVITY ID PREFIX**

Activity ID Prefix	WBS Node Name	Work Package or Template Project ID	Work Package or Template Name	Functional Group
ACC	Agreement Cooperative Construction	TEMPMODA TMPL3056	Project Template Cooperative Construction Agreement	Co-op Agreements
ADA	Americans with Disabilities Act	TEMPMAIN TEMPMINA TEMPMODE TMPL1416	Maintenance Plan Minor Project Template Project Template ADA Recommendations	ADA Unit
ADM	Admin	TEMPCMBP TEMPLAND TEMPMAIN TEMPMINA TEMPMODA TMPL2000 TMPL2001 TMPL2002 TMPL2003 TMPL2004	Cable Median Barrier Plan Landscaping Plan Maintenance Plan Minor Project Template Project Template Process A Process B Process B Complex Prequalification (Tech Proposal) Process B PODI	Letting Coordination
ADR	Agreement Detour	TEMODA TMPL3058	Project Template Detour Agreement	Project Management
AIR	Air Quality Analysis	TMPL1330	Air Quality Analysis	Ops Env. Model & Test
ARR	Agreements Railroad	TMPL1421 TMPL1422 TMPL1423	Railroad Bridge Agreement Railroad Flagging Agreement Railroad Track Relocation Agreement	Modal Planning Div. Freight & Commercial
AUT	Agreements Utility	TEMPMODA TMPL1424	Project Template Utility Agreement	OLM R.E. & Policy Dev. Utility Agr & Permit
BCL	Barrier Cross Overs	TEMPCMBP	Cable Median Barrier Plan	Districts Design

Activity ID Prefix	WBS Node Name	Work Package or Template Project ID	Work Package or Template Name	Functional Group
BDS	Blowing and Drifting Snow	TMPL1417	Blowing and Drifting Snow Control	Construction & Ops Road Veg. Mgmt
BFR	Bridge Foundation Recommendations	TMPL1500 TMPL1501 TMPL1502 TMPL1508	New Bridge Consultant Bridge Design (Prelim & Final Consultant) Bridge Substructure Widening	OM & RR. Geotech Engineering
BHL	Bridge Hydraulics	TMPL1500 TMPL1501 TMPL1502 TMPL1506	New Bridge Consultant Bridge Design (Prelim & Final Consultant) Consultant Bridge Design (Final Only Consultant) Culvert	Bridge Office Bridge Hydraulics
CAR	Crash Analysis Report	TEMPCMBP	Cable Median Barrier Plan	Districts Traffic Control
CFR	Culvert Foundation Recommendations	TMPL1506	Culvert	OM & RR Geotech Engineering
CGP	Coast Guard Permit	TMPL1354	Section 9 (Coast Guard) Permit	Bridge Office Preliminary Bridge
CRU	Cultural Resource Unit	TEMPCMBPT EMPMODAT MPL1302 TML1304 TMPL1302C	Cable Median Barrier Plan Project Cultural Resources - Work Package 1 Full Section 106 - All Federal Agencies Cultural Resources - Work Package 2 FHWA Funds Cultural Resources - Work Package 3 State Level Review (State Funds Only)	Pre-Construction Cultural Resources
CSP	Contaminated Materials Management Special Provisions	TMPL1319	Contaminated Materials Management Special Provisions	Construction & Ops Cont. Mat. MT
CTX	CATEX	TEMPCMBP TEMPMAIN TEMPMINA TEMPMODA TMPL1334 TMPL1336	Cable Median Barrier Plan Maintenance Plan Minor Project Template Project Template Categorical Exclusion (Non-Programmatic) Categorical Exclusion - Programmatic	Pre-Construction Env. Assessment
CVL	Civil Rights	TEMPCMBP TEMPLAND TEMPMAIN TEMPMINA TEMPMODA TMPL2000 TMPL2001 TMPL2002 TMPL2003 TMPL2004 TMPL2005	Cable Median Barrier Plan Landscaping Plan Maintenance Plan Minor Project Template Project Template Process A Process B Process B Complex Prequalification (Tech Proposal) Process B PODI Design Build	OPM & TS Project Delivery Letting Coordination

Activity ID Prefix	WBS Node Name	Work Package or Template Project ID	Work Package or Template Name	Functional Group
DME	Design Memo/ Design Exceptions	TEMPMODA TMPL3026	Project Template Design Memo/Design Exception	OPM & TS Design Support Geometric Des. Sup.
DSB	Design Build	TMPL2005	Design Build	OPM & TS Design Build
EAW	Environmental Assessment Worksheet	TMPL1338	Environmental Assessment (EA)/Environmental Assessment Worksheet (EAW)	Pre-Construction Env. Assessment
EDD	Environmental Due Diligence	TEMPMODA TMPL1306 TMPL1308 TMPL1310	Project Template Environmental Due Diligence 1 Environmental Due Diligence 2 Environmental Due Diligence 3	Construction & Ops Cont. Mat. MT
EIS	Environmental Impact Statement	TMPL1340	Environmental Impact Statement (EIS)	Pre-Construction Env. Assessment
ENM	Early Notification Memo	TEMPCMBP TEMPMAIN TEMPMINA TEMPMODA TMPL3006	Cable Median Barrier Plan Maintenance Plan Minor Project Template Project Template Early Notification Memo	Districts Project Management
ESA	Environmental Site Assessment	TEMPMODA TMPL1312 TMPL1313 TMPL1314	Project Template Environmental Site Assessment (Phase I & II) Acquisition Environmental Site Assessment (Phase I & II) Early Acquisition Environmental Site Assessment (Phase I & II) No Acquisition	Construction & Ops Cont. Mat. MT
EST	Estimating	TEMPCMBPT EMPLANDTE MPMAINTEM PMINATEMP MODATMPL2 000TMPL2001 TMPL2002TM PL2003TMPL2 004TMPL2005	Cable Median Barrier Plan Landscaping Plan Maintenance Plan Minor Project Template Project Template Process A Process B Process B Complex Prequalification (Tech Proposal) Process B POD Design Build	OPM & TS Project Delivery Eng. Cost & Estimate
FBP	Final Bridge Plans	TMPL1500 TMPL1501 TMPL1502 TMPL1508	New Bridge Consultant Bridge Design (Prelim & Final Consultant) Consultant Bridge Design (Final Only Consultant) Bridge Substructure Widening	Bridge Office Final Bridge
FCP	Final Culvert Plans	TMPL1506	Culvert	Bridge Office Final Bridge
FDB	Final Design Baseline	TEMPSCOP	Scoping Template	Districts Project Management
FDR	Foundation Recommendatio ns	TMPL1414	Foundation Recommendations	OM & RR Geotech Engineering
FRP	Final Repair Plans	TMPL1503 TMPL1504	Bridge Preservation Bridge Redeck	Bridge Office Final Bridge

Activity ID Prefix	WBS Node Name	Work Package or Template Project ID	Work Package or Template Name	Functional Group
GEO	Geotechnical Report	TEMPCMBP	Cable Median Barrier Plan	OM & RR Geotech Engineering
HYD	Hydraulics	TEMPCMBP TEMPMODA TMPL3038	Cable Median Barrier Plan Project Template Hydraulics Design	Districts Hydraulics/WRE
HSB	Historic Bridge Study	TMPL1509	Historic Bridge Study	Bridge Office
IAR	Interstate Access Request	TEMPMODA TMPL3022	Project Template Interstate Access Request	Districts Traffic
ICE	Interstate Control Evaluation	TEMPMODA TMPL3018	Project Template Intersection Control Evaluation	Districts Traffic
LAY	Staff Approved Layout	TEMPMODA TMPL3024	Project Template Staff Approved Layout	Districts Project Management
LGA	Lighting Agreement	TEMPMINA TMPL1376	Minor Project Template Lighting Agreement	Districts Lighting
LIM	Right of Way Construction Limits	TEMPMODA TMPL3028	Project Template RW Construction Limits	Districts Design
LMR	Land Management Right of Way	TEMPCMBPT EMPLANDTE MPMAINT MPMINATEMP MODATMPL2 001TMPL2002 TMPL2003TM PL2004TMPL2 005	Cable Median Barrier Plan Landscaping Plan Maintenance Plan Minor Project Template Project Template Process B Process B Complex Prequalification (Tech Proposal) Process B PODI Design Build	OLM R.E. & Policy Dev Purch & Relocation
LMU	Land Management Utilities	TEMPCMBP TEMPLAND TEMPMINA TEMPMODA TMPL2001 TMPL2002 TMPL2003 TMPL2004 TMPL2005	Cable Median Barrier Plan Landscaping Plan Minor Project Template Project Template Process B Process B Complex Prequalification (Tech Proposal) Process B PODI Design Build	OLM R.E. & Policy Dev. Utility Agr & Permit
LSP	Landscape Plan	TEMPLAND	Landscaping Plan	Pre-Construction Env. Plan & Design
MDR	Material Design Recommendations	TEMPMAIN TEMPMODA TMPL3034	Maintenance Plan Project Template Material Design Recommendations (MDR)	OM & RR Pavement Engineering
MNC	Municipal Consent	TEMPMODA TMPL3030 TMPL3032	Project Template Municipal Consent Municipal Consent (Appeal Process)	Districts Project Management

Activity ID Prefix	WBS Node Name	Work Package or Template Project ID	Work Package or Template Name	Functional Group
MS_	Milestone	TEMPCMBP TEMPLAND TEMPMAIN TEMPMINA TEMPMODA TEMPSCOP TMPL1600 TMPL1610 TMPL1630 TMPL3000	Cable Median Barrier Plan Landscaping Plan Minor Project Template Maintenance Plan Project Template Scoping Template Fee Acquisition Acquisition (Metro) Temporary Right to Construct Milestones (Design)	Districts Project Management
MSY	Mussel Survey	TMPL1349	Mussel Survey	Pre-Construction Env. Assessment
NAD	No Association Determination	TMPL1317	No Association Determination	Construction & Ops Cont. Mat. MT
NOI	Noise Analysis	TMPL1328	Noise Analysis	Construction & Ops Env. Model & Test
NPP	NPDES Permit	TEMPCMBPT EMPLANDTE MPMODATMP L1346	Cable Median Barrier Plan Landscaping Plan Project Template NPDES Stormwater Discharge Permit	Districts Hydraulics/WRE
OPM	Ongoing Project Management	TEMPCMBP TEMPMAIN TEMPMINA TEMPMODA TMPL3002	Cable Median Barrier Plan Maintenance Plan Minor Project Template Project Template Project Management	Districts Project Management
PBP	Preliminary Bridge Plans	TMPL1500 TMPL1501 TMPL1502 TMPL1508	New Bridge Consultant Bridge Design (Prelim & Final Consultant) Consultant Bridge Design (Final Only Consultant) Bridge Substructure Widening	Bridge Office Preliminary Bridge
PHU	Phase I Update	TMPL1315 TMPL1316	Phase I Update Phase II Update	Construction & Ops. Cont. Mat. MT
PLN	Plan	TEMPCMBP TEMPMAIN TEMPMINA TEMPMODA TMPL3040	Cable Median Barrier Plan Maintenance Plan Minor Project Template Project Template Road Plans	Districts Design
PMM	Project Maintenance Plan	TEMPCMBP TEMPMAIN TEMPMINA TEMPMODA TMPL3002	Cable Median Barrier Plan Maintenance Plan Minor Project Template Project Template Project Management	Districts Project Management
PND	Stormwater Design	TEMPMODA TMPL3036	Project Template Stormwater Treatment Design	Districts Hydraulics/WRE

Activity ID Prefix	WBS Node Name	Work Package or Template Project ID	Work Package or Template Name	Functional Group
PRO	Prepare Special Provisions	TEMPCMBP TEMPLAND TEMPMAIN TEMPMINA TEMPMODA TMPL3052	Cable Median Barrier Plan Landscaping Plan Maintenance Plan Minor Project Template Project Template Special Provisions	Districts Project Management
PRS	Plan Review/ Signatures	TEMPCMBPT EMPLANDTE MPMAINTEM PMINATEMP MODATMPL2 000TMPL2001 TMPL2002TM PL2003TMPL2 004	Cable Median Barrier Plan Landscaping Plan Maintenance Plan Minor Project Template Project Template Process A Process B Process B Complex Prequalification (Tech Proposal) Process B PODI	OPM & TS Project Delivery Design Services
PWP	Public Waters Permit	TEMPMODA TMPL1350	Project Template DNR Public Waters Permit	Districts Hydraulics/WRE
RAP	Response Action Plans	TMPL1318	Response Action Plans	Construction & Ops Cont. Mat. MT
RDP	Direct Purchase	TMPL1600 TMPL1610 TMPL1630	Fee Acquisition Acquisition (Metro) Temporary Right to Construct	OLM R.E. & Policy Dev. Purch & Relocation
RED	Condemnation	TMPL1600 TMPL1610	Fee Acquisition Acquisition (Metro)	OLM R.E. & Policy Dev.
RFR	Request & Obtain Files From Regulator	TEMPCMBP TEMPMINA TMPL1305	Cable Median Barrier Plan Minor Project Template Regulatory File Review	Construction & Ops Cont. Mat. MT
RHB	Rehabilitation	TMPL1503 TMPL1504 TMPL1508	Bridge Preservation Bridge Redeck Bridge Substructure Widening	Bridge Office Bridge Construction
RMA	Regulated Materials Buildings	TMPL1326	Regulated Materials Buildings	Construction & Ops Reg. Mat. MT
RMT	Regulated Materials	TMPL1326 TMPL1327	Regulated Materials Buildings Regulated Materials Bridge	Construction & Ops Reg. Mat. MT
RPR	Receive and Distribute Right of Way Package	TMPL1600 TMPL1630 TMPL1640	Fee Acquisition Temporary Right to Construct Commissioner's Orders	OLM R.E. & Policy Dev.
RRL	Relocation	TMPL1650	Relocation	Districts Right of Way
RTT	Right of Way Titles	TMPL1600 TMPL1610 TMPL1630	Fee Acquisition Acquisition (Metro) Temporary Right to Construct	Districts Right of Way
RVL	Right of Way Valuations	TMPL1600TM PL1610TMPL1 630	Fee Acquisition Acquisition (Metro) Temporary Right to Construct	OLM R.E & Policy Dev. Appraisal Mgmt
RWP	Right of Way Package	TMPL1600 TMPL1610 TMPL1630 TMPL1640	Fee Acquisition Acquisition (Metro) Temporary Right to Construct Commissioner's Orders	Districts Right of Way

Activity ID Prefix	WBS Node Name	Work Package or Template Project ID	Work Package or Template Name	Functional Group
SAT	Signal Agreement	TEMPMINA TMPL1377	Minor Project Template Signal Agreement	Districts Signals
SAW	Environmental Assessment Worksheet	TMPL1332	Environmental Assessment Worksheet (EAW) State	Pre-Construction Env. Assessment
SDE	Surveys Design	TEMPCMBP TEMPLAND TEMPMAIN TEMPMINA TEMPMODA TMPL3014	Cable Median Barrier Plan Landscaping Plan Maintenance Plan Minor Project Template Project Template Design Surveys	Districts Surveys
SDL	Surveys District Land	TEMPMODA TMPL3012	Project Template District Land Surveys	Districts Surveys
SFF	Section 4 F	TMPL1419	Section 4(f) Coordination	Districts Project Management
SGC	Surveys Geodetic Control	TMPL1400	Geodetic Control Surveys	OLM Survey & Mapping Geodetic Unit
SGN	Signing Plan	TEMPCMBP TEMPMAIN TEMPMINA TEMPMODA TMPL1339	Cable Median Barrier Plan Maintenance Plan Minor Project Template Project Template Signing Plan	Districts Signing
SPB	Surveys Photogrammetric Basemap	TMPL1402	Photogrammetric Basemap	OLM Survey & Mapping Photogrammetric
SPC	Surveys Project Control	TMPL1401	Project Control Surveys	Districts Surveys
SPS	Special Provisions	TEMPCMBP TEMPLAND TEMPMAIN TEMPMINA TEMPMODA TMPL2000 TMPL2001 TMPL2002 TMPL2003 TMPL2004	Cable Median Barrier Plan Landscaping Plan Maintenance Plan Minor Project Template Project Template Process A Process B Process B Complex Prequalification (Tech Proposal) Process B PODI	OPM & TS Project Delivery Special Provisions
SSF	Section 6(f)	TMPL1420	Section 6(f) Coordination	Districts Project Management
STR	Structures	TMPL1500 TMPL1501 TMPL1502 TMPL1506	New Bridge Consultant Bridge Design (Prelim & Final Consultant) Consultant Bridge Design (Final Only Consultant) Culvert	Bridge Office Preliminary Bridge
SUE	Subsurface Utility Engineering	TMPL1379	Subsurface Utility Engineering (SUE)	Districts District Utilities

Activity ID Prefix	WBS Node Name	Work Package or Template Project ID	Work Package or Template Name	Functional Group
SUR	Survey Request	TEMPCMBP TEMPMAIN TEMPMINA TEMPMODA TMPL3010	Cable Median Barrier Plan Maintenance Plan Minor Project Template Project Template Surveys	Districts Project Management
TCP	Traffic Control Plan	TEMPCMBP TEMPLAND TEMPMAIN TEMPMODA TMPL3044	Cable Median Barrier Plan Landscaping Plan Maintenance Plan Project Template Traffic Control/ Detour/ Staging Plan	Districts Traffic Control
TES	Threatened & Endangered Species	TEMPMODA TMPL1370 TMPL1701 TMPL1702	Project Template Section 7 Determination [Threatened & Endangered Species] - No Effect Section 7 Determination [Threatened & Endangered Species] - May Affect Section 7 Determination [Threatened & Endangered Species] - Formal Consultation	Pre-Construction Env. Assessment
TFC	Traffic Counts	TMPL1375	Traffic Counts	Districts Traffic
TLT	Traffic Lighting Plan	TEMPMAIN TEMPMINA TEMPMODA TMPL1335	Maintenance Plan Minor Project Template Project Template Lighting Plan	Districts Lighting
TMP	Transportation Management Plan	TEMPCMBP TEMPLAND TEMPMAIN TEMPMINA TEMPMODA TMPL3020	Cable Median Barrier Plan Landscaping Plan Maintenance Plan Minor Project Template Project Template Transportation Management Plan (TMP)	Districts Project Management
TMS	Traffic Monitoring System	TEMPMAIN TEMPMINA TEMPMODA TMPL3048	Maintenance Plan Minor Project Template Project Template TMS Plan	Districts Traffic Management
TPM	Transportation Pavement Marking plan	TEMPMODA TMPL3046	Project Template Pavement Marking Plan	Districts Traffic
TRF	Traffic Forecasts	TEMPMODAT MPL3016	Project Template Traffic Forecasts	Modal Planning Div. Transportation
TSG	Transportation Signal Plan	TEMPMAIN TEMPMINA TEMPMODA TMPL1351	Maintenance Plan Minor Project Template Project Template Signal Plan	Districts Signals
TTT	Time and Traffic	TEMPCMBP TEMPMAIN TEMPMINA TEMPMODA TMPL3050	Cable Median Barrier Plan Maintenance Plan Minor Project Template Project Template Time and Traffic	Districts Construction

Activity ID Prefix	WBS Node Name	Work Package or Template Project ID	Work Package or Template Name	Functional Group
TUR	Turn in	TEMPCMBP TEMPLAND TEMPMAIN TEMPMINA TEMPMODA TMPL3054	Cable Median Barrier Plan Landscaping Plan Maintenance Plan Minor Project Template Project Template Project Turn In	Districts Project Management
UTI	Utility Information Meetings	TEMPCMBP TEMPLAND TEMPMAIN TEMPMINA TEMPMODA TMPL1425	Cable Median Barrier Plan Landscaping Plan Maintenance Plan Minor Project Template Project Template Utility Coordination	Districts District Utilities
VEA	Value Engineering	TMPL1407	Value Engineering	OPM & TS Design Support Value Eng. Unit
VGT	Vegetation Review	TMPL1368	Vegetation Review	Construction & Ops Road Veg. Mgmt
VIS	Visual Impact Assessment	TMPL1409	Visual Impact Assessment	Pre-Construction Env. Plan & Design
VQM	Visual Quality Management	TMPL1408	Visual Quality Management Plan	Pre-Construction Env. Plan & Design
WDP	Watershed District Permit	TEMPCMBP TEMPLAND TEMPMODA TMPL1352	Cable Median Barrier Plan Landscaping Plan Project Template Watershed District Permit	Districts Hydraulics/WRE
WRE	Water Resource Engineering Plans	TEMPMODA TMPL3042	Project Template Hydraulics/ WRE Plans	Districts Hydraulics/WRE
WTL	Wetlands Delineate	TEMPMAIN TEMPMODA TMPL1348 TMPL3008	Maintenance Plan Project Template Wetland Delineations (Metro) Wetland Delineations	Districts Hydraulics/WRE
WTP	Wetland/WCA & Aquatic Resources	TEMPMODAT TMPL1355	Project Template Wetland/WCA & Aquatic Resources (404/401/Section 10)	Districts Hydraulics/WRE

## 6.4 QA/QC FORM

This form is available in Word Format at [FM-00-02\\_QC-QA checks for work packages.docx](#)

FM-00-02\_QC-QA form for work package release  
 Updated 20140527

Work Package ID/Name:

QC completed by:

Work Package preparer:

QA completed by:

### QC Checks

Description	Date Checked	Comment	Notes
<b>WBS, ACTIVITIES and LOGIC</b>			
WBS concurrence			
Activity ID's have appropriate prefix			
Activity ID order follows basic order of activities and increase by 10			
Activity Description has enough detail (VUC)			
Number of activities have been minimized (Are the activities tied to deliverables or handoffs? If not, can they be consolidated?)			
No constraints			
Appropriate estimates			
Functional group ending complete			
Roles assigned			
Role hours estimated (budgeted units)			
No start project ties			
No lags/leads			
No open ends			
<b>SETTINGS</b>			
Completion Type is set at Physical Percent Complete			
Drive Activity Dates are unlocked			
Duration Type on Task Dependent activities is Fixed Duration and Units/Time			
<b>DISSOLVABLE MILESTONES</b>			
WBS Node name - Dissolvable Milestones (Dissolve after relationship linked and remove from WBS)			
Activity Type - Start or Finish milestone			
Activity ID - "ZZZ" plus the actual Activity ID of activity to be linked			
Activity Names (Any needed conditional statement "Pre" or "Start" (Activity to link) (Relationship Type) (Work Package)			
Logic - Logic matches the logic in activity name			
Logic - Confirm activities to be linked exist in the project template or appropriate work package			
Dissolvable Milestones added to other work packages that are impacted			
<b>GUIDANCE</b>			

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Description	Date Checked	Comment	Notes
Work Package Dictionary Entry - Contact, Definition, Threshold Criteria, Deliverable(s), Additional Guidance			
Work Package Dictionary Appendix: Ownership assignment guidance, Work package champion and approval status			
Functional Group buy is documented in notebook topic - Version Control			
CPMS Network Activity Manual back check completed - confirm that predecessor and successors are appropriate for each activity			
Confirm work package is on the schedule initiation form			
Confirm moderate template has been updated			

### QA Checks

Description	Date Checked	Comment	Notes
Spot check on QC completed - list checks completed			
QC documents filed			
Update moderate template completed			
Update version control			

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