

Wisconsin Traffic Operations and Safety (TOPS) Laboratory

Wisconsin TMP System Overview and Demo

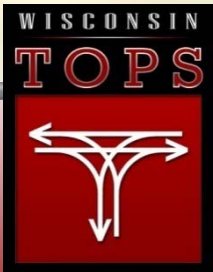
Steven T. Parker

IT Program Manager, TOPS Lab

sparker@engr.wisc.edu

WisDOT BTO Webinar

March 13, 2014



Wisconsin Traffic Operations and Safety Laboratory

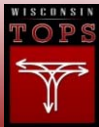
Department of Civil and Environmental Engineering
University of Wisconsin-Madison



THE UNIVERSITY
of
WISCONSIN
MADISON

Presentation Outline

- Overview and Objectives
- Key Automation Features
- Status and Timeline
- WisTMP System Run Through



TMP Background

- Coordinated strategies to manage the work zone impacts of a road project, such as:
 - Temporary traffic control measures and devices
 - Public information and outreach
 - Transportation operations and incident management strategies
- FHWA Final Rule on Work Zone Safety and Mobility (2004)
- WisDOT Facilities Development Manual (FDM 11-50)
- TMPs are Required for All Projects



TMP Background

- The TMP preparation and approval process requires input from several bureaus and business areas including:
 - BPD
 - BTO
 - Regional PDS
 - Regional Traffic
 - Project Consultants
- FHWA review and approval is also required on federal oversight projects.
- Different levels of analysis and review based on TMP type.



TMP Request for Approval Form

FDM 11-50 Attachment 5.7: TMP Documentation and Request for Approval

TMP DOCUMENTATION & REQUEST FOR APPROVAL
We are requesting approval of the Transportation Management Plan (TMP) for the project detailed below. This project is categorized as TMP type _____. Impacts resulting from project activities meet the current work zone policies of the Wisconsin Department of Transportation.

TMP/Project Type	Action
A. Project that requires a DSR and is TMP Type 1, 2 or 3.	Complete and submit this document and any attachments to BPD project services liaison.
B. Project that requires a DSR and is TMP Type 4.	Complete this document as the TMP Executive Summary and submit along with separate TMP report to BPD project services liaison.
C. Project does not require DSR and is TMP Type 1, 2 or 3.	Complete and submit this document and any attachments to BPD project services liaison.

For Federal Oversight projects, coordinate early in TMP development with BPD & FHWA project liaisons.

1. Project Information
Design ID: _____ PS&J Date: _____
Project Title: _____ Let Date: _____
Project Limits: _____ Project Length: _____ Miles
Highway: _____ Project Duration: _____ Days
County: _____ AADT: _____ Month _____ to Month _____

Project type (rest, resurfacing, SIRM, etc.): _____
Engineer's Estimate: \$1 Million \$1M-\$5M \$5M-\$10M \$10M
Is the project a National Highway System (NHS) route? Yes No
Is the project Federal Oversight? Yes No
OSRW Route? Yes No

2. Brief description of work activities:

3. Briefly describe the staging planned for maintaining traffic:

4. Will there be restrictions on pedestrian/bicycle access?
If Yes:
a) Will sidewalk, multiuse path be closed? Yes No
b) Describe how pedestrian and bicyclists will be accommodated
c) Will crosswalks be provided? What is the spacing of crosswalks?
d) Are the strategies in compliance with ADA?

5. Briefly describe how access to traffic generators, businesses, school buses, garbage trucks, postal services, and transit impacts will be mitigated (alternate routes, etc.):
a) Are the strategies in compliance with ADA?
b) Is access to bus stops affected? Yes No

6. Will the project have lane closures? Yes No
If Yes:
a. Are there restrictions on when lane closures are allowed? Yes No
b. What hours/days are lane closures permitted?
c. How were traffic counts used in determining permitted lane closure times? (For multi-lane road, indicate typical peak hour volume per direction of travel. For two-lane, two-way road indicate AADT)

Attachment 5.7: TMP Documentation and Request for Approval

be maintained. _____ as shoulder width to accommodate OSOW. _____ than typically available) _____.
 Yes No
r, travel times, improvements required for signal timing, surface and capacity, etc. _____
light restrictions on the detour? Yes No
olidays, and how traffic disruptions will be minimized:
T, Quadro, FDM 11-50-30, etc.) used to estimate motorist delays on freeways, expressways, and signalized corridors).
delay during peak travel periods (also indicate frequency, e.g. daily _____
lumes per lane with the work zone capacity criteria in 11-50-30. If it delay calculation is required. If the delay is more than 15 minutes, s than 15 minutes, it generally will be a type 2. The Regional Work determining your delay.
dated, and any alternate route improvements or signing planned.
ontrol changes proposed such as temporary signals, temporary
pacts from the proposed project on other roads/routes in the ects in the corridor (only if delay anticipated on this project)
egions/states? Yes No
mitigation strategies:
ned
fficial lanes (S) _____
s _____
s _____
M, A+B, etc) _____
Wet _____
reflective pavement marking, temp concrete barrier, etc)

Attachment 5.7: TMP Documentation and Request for Approval

Title/Company: _____
(initials) _____ Telephone: _____
Agent/Consultant (initials) _____ Date _____
Regional Program Manager (initials) _____ Date _____
(initials) _____ Date _____
(initials) _____ Date _____

Attachment 5.7: TMP Documentation and Request for Approval

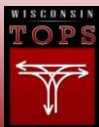
August 14, 2008 Attachment 5.7 Page 1

Attachment 5.7: TMP Documentation and Request for Approval

August 14, 2008 Attachment 5.7 Page 2

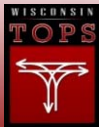
Attachment 5.7: TMP Documentation and Request for Approval

August 14, 2008 Attachment 5.7 Page 3



TMP Automation: Shortcomings to Current Process

- No centralized workflow
- Multiple versions on different computers
- No common repository of TMP documents
- Data cannot be used for other applications
- Re-entry and inconsistency with FIIPS source data



TMP Automation: Overview and Objectives

- Streamline the TMP preparation and approval process
- Enhance document sharing and collaboration
- Improve data quality and consistency across TMPs
- Provide an online repository of historical TMPs
- Leverage TMP information for additional work zone planning and operations applications



TMP Automation Components

■ Electronic Workflow

- Form Submission, Email Routing, Sign Off, Version History, Etc.



■ Document Repository

- Document Management, Search Capabilities



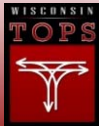
■ Performance Measures/GIS Mapping

- Possible: Hot Work Zone Maps



TMP Automation Key Features

- Online Forms and Attachments
- Searchable Document Repository
- Role Based Authorization Levels
- TMP Based Team Editing
- Automated Work Flow
- Electronic Signing
- Email Notifications
- History Tracking
- Leverages Existing Source Data (FIIPS, STN)



Key Features: Search and Retrieval

Wisconsin Transportation Management Plan (WisTMP) System

[Home](#)
[Create](#)
[Search](#)
[Admin](#)
[Help](#)
[Resources](#)
[Contact](#)

WisTransPortal > Applications > WisTMP > Search Welcome, sparker | [Manage Account](#) | [Logout](#)

Search

Use this interface to search and retrieve any TMP (Active or Completed) in the system. Click View in the results table to open a particular TMP for viewing or editing.

*** TMP Type**

Type 1

Type 2

Type 3

Type 4

Status

Active and Approved ▾

Delay Information

All Delay Types ▾

Restrict Results to:

Local Program

NHS Route

OSOW Route

FHWA Oversight

Region/County

ALL ▾

Highway

▾

LET Begin Date

▭

LET End Date

▭

TMP ID

▭

Design ID

▭

Construction ID

▭

* Parameters within this box will override everything else.

Order By TMP ID ▾
Ascending ▾
 Results Per Page 10 ▾

The total number of records is : 51

Prev
1
2
3
4
5
Next

Current page: 1

	TMP ID	Type	Design ID	Const. ID(s)	Project Title	County	Highway	PM User ID	Last Modified Date
<input type="button" value="View"/>	1118	Type 3	9000-32-22	9000-00-90	STURGEON BAY - SISTER BAY	DOOR	US 42 NB	bbadger	12-27-2013 07:00
<input type="button" value="View"/>	1119	Type 2	1009-10-19	1009-10-69	C MADISON SOUTH MADISON BELTLINE	DANE	US 12 EB	bbadger	12-27-2013 06:56

WisDOT TMP Documentation and Request for Approval TMP ID: 1153
Version: Current

This is a request for approval of the Transportation Management Plan (TMP) for the project detailed below. Impacts resulting from project activities meet the current work zone policies of the Wisconsin Department of Transportation.

IA. Project Information:

TMP Type: Type 2
 Region: SE
 Local Program: No
 Created Comment: Created from Scratch. User comment: Not entered in FIMS

Design ID: 2285-16-00
 Project Title: S. 27th Street
 County: MILWAUKEE
 Highway: WIS 241

Construction ID: 2285-16-70
 Project Type: Reconstruction
 Project Limits: Drexel Avenue to College Avenue
 Project Length: 2.4 Mile(s)
 Project Duration: 140 Day(s)
 Engineer's Estimate: more than \$10M
 AADT: 22899
 PS&E Date: 2014-05-01
 LET Date: 2014-09-09
 NHS Route: No
 Federal Oversight: No

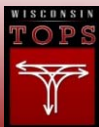
IB. Project Impacts:

Anticipated Begin:
 Anticipated End:
 Delay:
 OSOW Route: Yes

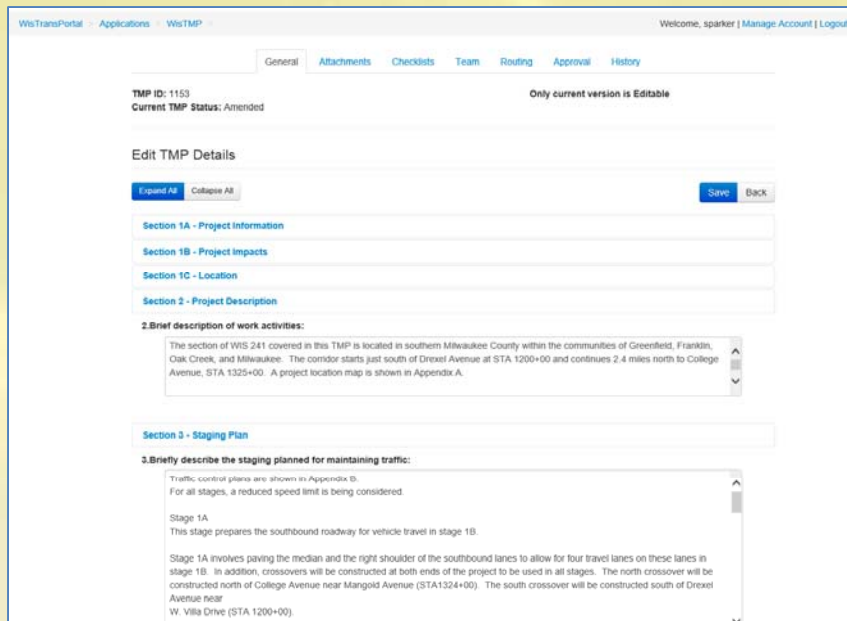
IC. Location:

Highway:
 Begin County: MILWAUKEE
 End County: MILWAUKEE
 Highway: WIS 241 NB
 Begin Landmark: W DREXEL AVE | WIS 241 NB | MILWAUKEE
 Direction From: S

January 17, 2014 Wisconsin TMP System Page 1



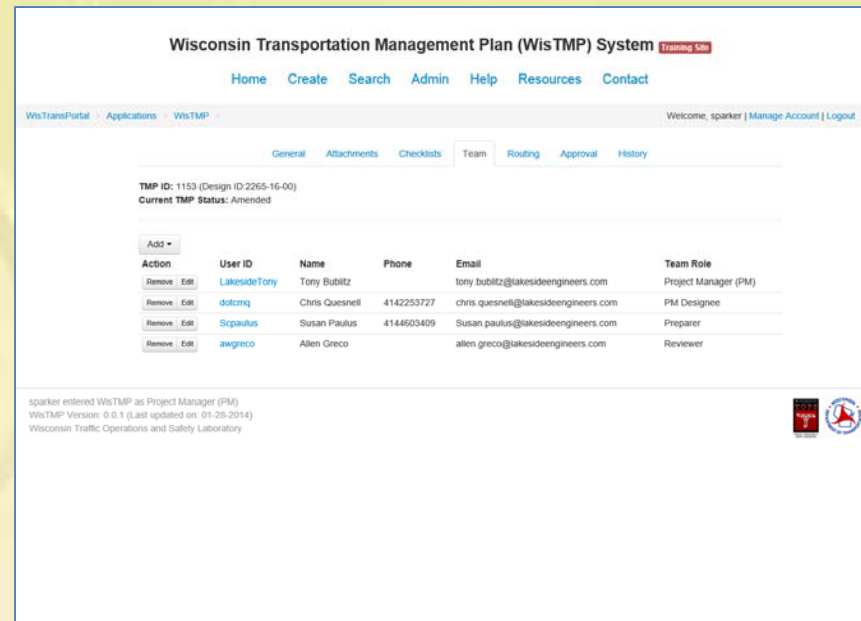
Key Features: View and Edit



The screenshot shows the 'Edit TMP Details' page in the WisTAMP system. The page title is 'WisTAMP' and the user is logged in as 'sparker'. The page is divided into several sections for editing project information:

- General Information:** TMP ID: 1153, Current TMP Status: Amended. A note states 'Only current version is Editable'.
- Edit TMP Details:** Includes 'Expand All' and 'Collapse All' buttons, and 'Save' and 'Back' buttons.
- Section 1A - Project Information:** A form field for project information.
- Section 1B - Project Impacts:** A form field for project impacts.
- Section 1C - Location:** A form field for location details.
- Section 2 - Project Description:** A text area containing a brief description of work activities. The text reads: 'The section of WIS 241 covered in this TMP is located in southern Milwaukee County within the communities of Greentfield, Franklin, Oak Creek, and Milwaukee. The corridor starts just south of Drexel Avenue at STA 1200+00 and continues 2.4 miles north to College Avenue, STA 1325+00. A project location map is shown in Appendix A.'
- Section 3 - Staging Plan:** A text area for describing staging plans. The text reads: 'Traffic control plans are shown in Appendix B. For all stages, a reduced speed limit is being considered. Stage 1A: This stage prepares the southbound roadway for vehicle travel in stage 1B. Stage 1A involves paving the median and the right shoulder of the southbound lanes to allow for four travel lanes on these lanes in stage 1B. In addition, crossovers will be constructed at both ends of the project to be used in all stages. The north crossover will be constructed north of College Avenue near Mangold Avenue (STA1324+00). The south crossover will be constructed south of Drexel Avenue near W. Villa Drive (STA 1200+00).'

TMP Document Preparation Form

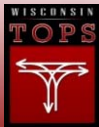


The screenshot shows the 'Wisconsin Transportation Management Plan (WisTAMP) System' team setup page. The page title is 'Wisconsin Transportation Management Plan (WisTAMP) System' and the user is logged in as 'sparker'. The page is divided into several sections:

- General Information:** TMP ID: 1153 (Design ID: 2265-16-00), Current TMP Status: Amended.
- Team Setup Table:** A table listing team members with columns for Action, User ID, Name, Phone, Email, and Team Role.
- Footer:** sparker entered WisTAMP as Project Manager (PM), WisTAMP Version: 0.0.1 (Last updated on: 01-26-2014), Wisconsin Traffic Operations and Safety Laboratory.

Action	User ID	Name	Phone	Email	Team Role
Remove Edit	LakesideTony	Tony Bublitz		tony.bublitz@lakesideengineers.com	Project Manager (PM)
Remove Edit	dotcmq	Chris Quesnell	4142253727	chris.quesnell@lakesideengineers.com	PM Designee
Remove Edit	Scpaulus	Susan Paulus	4144603409	Susan.paulus@lakesideengineers.com	Preparer
Remove Edit	awgreco	Allen Greco		allen.greco@lakesideengineers.com	Reviewer

TMP Team Setup Page



Key Features: File Upload

Wisconsin Transportation Management Plan (WisTMP) System

[Home](#) [Create](#) [Search](#) [Admin](#) [Help](#) [Resources](#) [Contact](#)

WisTransPortal > Applications > WisTMP > Welcome, sparker | [Manage Account](#) | [Logout](#)

[General](#) [Attachments](#) [Checklists](#) [Team](#) [Routing and Approval](#) [History](#)

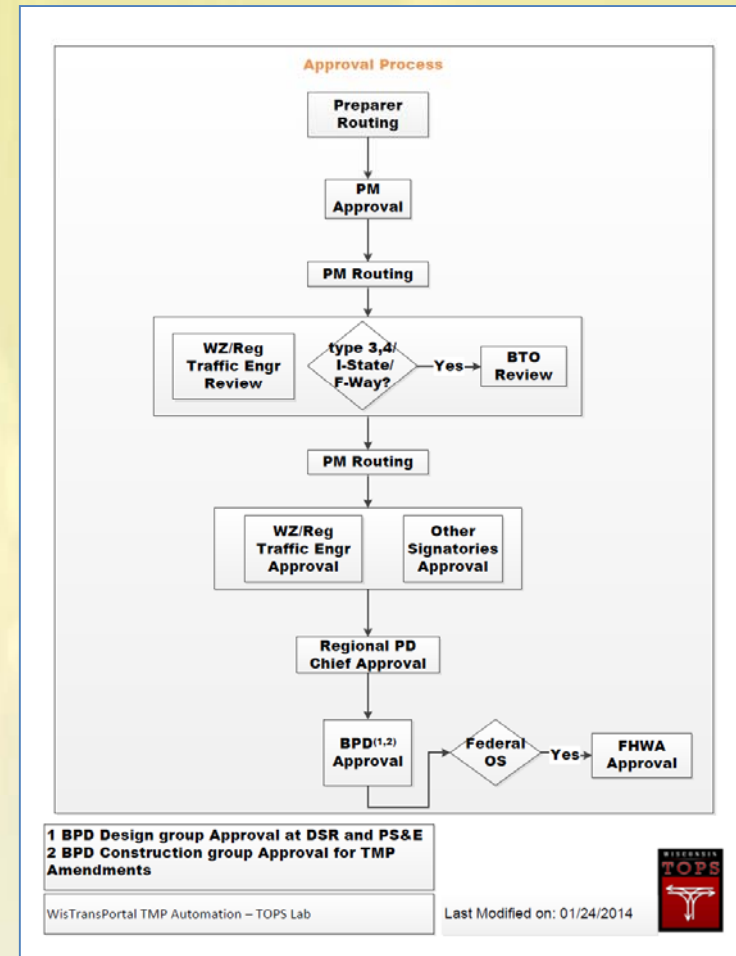
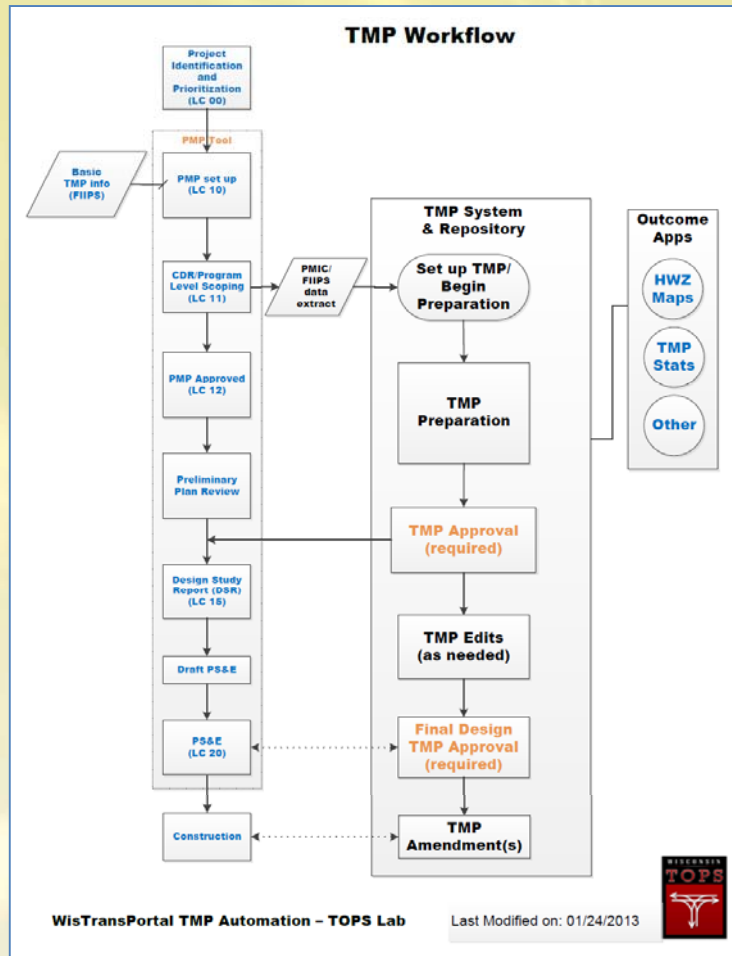
TMP ID: 1189 (Design ID:3030-05-30)
Current TMP Status: Amended

Tmp_1189

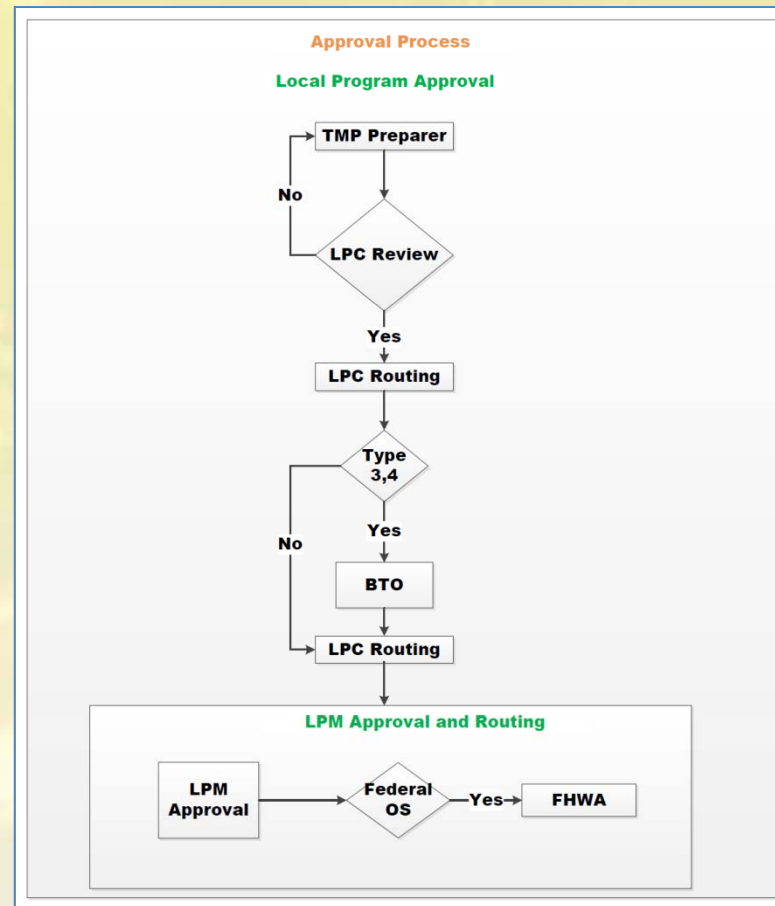
	Files	Description	Modified By	Modified On
<input type="checkbox"/>	Appendix A	Analysis Files	nayan	01-28-2014 01:50
<input type="checkbox"/>	Appendix B	Sample Data	nayan	01-28-2014 01:50
<input type="checkbox"/>	Appendix C	TIMP Documentation	sparker	01-28-2014 12:56
<input type="checkbox"/>	search_results.csv		nayan	01-28-2014 01:49



Key Features: Routing and Approval



Key Features: Routing and Approval (Local Program - Draft)



Key Features: Routing and Approval

Wisconsin Transportation Management Plan (WisTMP) System Training Site

Home Create Search Admin Help Resources Contact

WisTransPortal - Applications - WisTMP - Welcome, sparker | Manage Account | Logout

General Attachments Checklists Team Routing Approval History

TMP ID: 1153 (Design ID:2265-16-00)
Current TMP Status: Amended

Approval Status

Review (80%)

Action	Reviewer Role	Review Status	Reviewer	Reviewed On
Review	Regional Traffic (RT)	Reviewed	Tony Bublitz	02-10-2014 02:56

Approval (60%)

Action	Signature Role	Signature Status	Signatory	Signed On
Sign	Regional Traffic (RT)	Signed	Tony Bublitz	02-12-2014 05:27
Sign	Other Signatory (OS)	Signed	Tony Bublitz	02-12-2014 05:27
Sign	Bureau of Project Development (BPD)	Signed	Tony Bublitz	02-12-2014 05:27
Sign	Project Manager (PM)	Signed	Tony Bublitz	02-10-2014 02:54
Sign	Regional Project Development Chief (RPDC)	Signed	Tony Bublitz	02-12-2014 05:27

TMP Approval Page

Wisconsin Transportation Management Plan (WisTMP) System Training Site

Home Create Search Admin Help Resources Contact

WisTransPortal - Applications - WisTMP - Welcome, sparker | Manage Account | Logout

General Attachments Checklists Team Routing Approval History

TMP ID: 1153 (Design ID:2265-16-00)
Current TMP Status: Amended

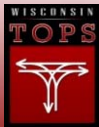
Modified By	Modified Date	Status	Comments
LakesideTony	02-12-2014 05:40	Submitted for Amendment	LakesideTony signed TMP towards Amendment.
LakesideTony	02-12-2014 05:40	Submitted for Amendment	LakesideTony routed TMP for Amendment Signature
LakesideTony	02-12-2014 05:40	Approved (50%)	WisTMP System has automatically routed this TMP to the PM to start the Amendment 1
LakesideTony	02-12-2014 05:38	Submitted for Approval (90%)	LakesideTony signed TMP towards 90% approval.
LakesideTony	02-12-2014 05:36	Submitted for Approval (90%)	WisTMP System has automatically routed this TMP to BPD for 90% Approval
LakesideTony	02-12-2014 05:36	Submitted for Approval (90%)	LakesideTony signed TMP towards 90% approval.
LakesideTony	02-12-2014 05:36	Submitted for Approval (90%)	WisTMP System has automatically routed this TMP to RPDC for 90% Approval
LakesideTony	02-12-2014 05:36	Submitted for Approval (90%)	LakesideTony signed TMP towards 90% approval.
LakesideTony	02-12-2014 05:32	Submitted for Review (90%)	LakesideTony marked this TMP as reviewed at 90%
LakesideTony	02-12-2014 05:32	Submitted for Review (90%)	LakesideTony routed TMP for Review (90%)
LakesideTony	02-12-2014 05:30	PM Approved (90%)	LakesideTony, the PM of this TMP signed after 60% Approved status.
LakesideTony	02-12-2014 05:27	Approved (60%)	WisTMP System has automatically routed this TMP to the PM to start the 90% Approval
LakesideTony	02-12-2014 05:27	Submitted for Approval (60%)	LakesideTony signed TMP towards 60% approval.
LakesideTony	02-12-2014 05:27	Submitted for Approval (60%)	LakesideTony signed TMP towards 60% approval.
LakesideTony	02-12-2014 05:27	Submitted for Approval (60%)	WisTMP System has automatically routed this TMP to BPD for 60% Approval
LakesideTony	02-12-2014 05:27	Submitted for Approval (60%)	LakesideTony signed TMP towards 60% approval.
LakesideTony	02-12-2014 05:27	Submitted for Approval (60%)	WisTMP System has automatically routed this TMP to RPDC for 60% Approval
LakesideTony	02-12-2014 05:27	Submitted for Approval (60%)	LakesideTony signed TMP towards 60% approval.

TMP History Page



Automated TMP Status and Timeline

- Automated TMP Concept and Work Flow: 2011 - 2012
- Functional Requirements: January - March 2013
- Design and Implementation: March - December 2013
- Testing and Rollout: January - February 2014
- SW Region / FHWA Walk Through: February 2014
- Regional Training: March - April, 2014
- Go Live: Spring / Summer 2014



Automated TMP Regional Training

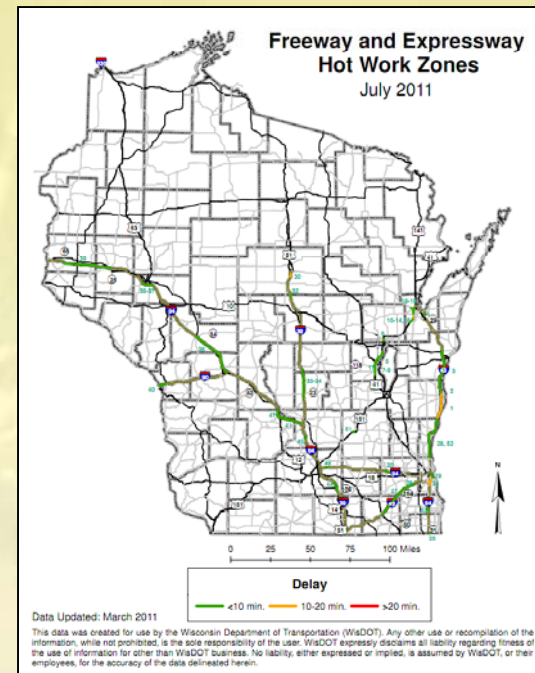
Second Day of BTO Spring WZ Training

- SE – Milwaukee: March 12
- SE – Waukesha: March 18
- SW – Madison: March 25
- SW – La Crosse: March 27
- NC – Wausau: April 8
- NW – Spooner: April 10
- NE – Green Bay: May 1



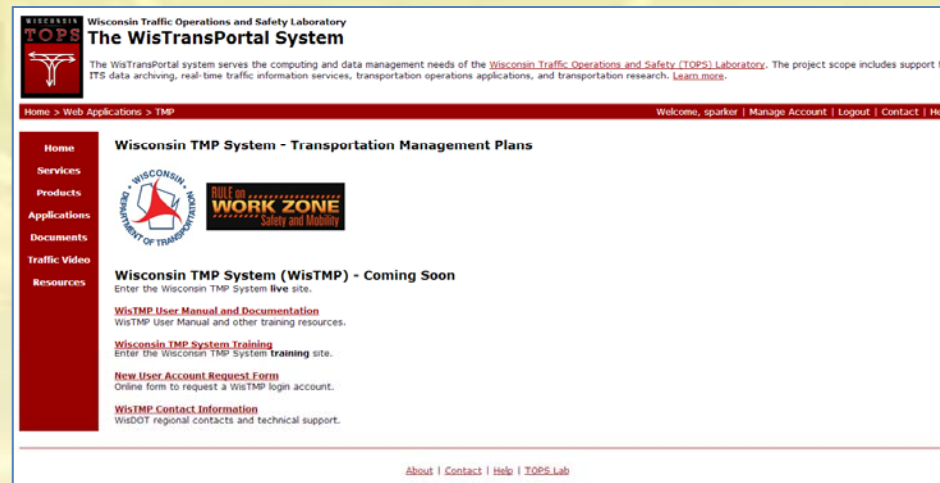
Automated TMP: Future

- Focus on Rollout and Support
- Local Comments, Attachments
- GIS Mapping Applications
- LCS / TMP Connections
- Research and Analysis



WisTMP System Walkthrough

<http://transportal.cee.wisc.edu/tmp/>



The screenshot shows the homepage of the WisTransPortal System. At the top left is the WISCONSIN TOPS logo. The main heading is "The WisTransPortal System". Below this, a brief description states: "The WisTransPortal system serves the computing and data management needs of the Wisconsin Traffic Operations and Safety (TOPS) Laboratory. The project scope includes support for ITS data archiving, real-time traffic information services, transportation operations applications, and transportation research. [Learn more.](#)".

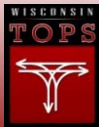
A navigation bar contains the following links: Home > Web Applications > TMP. On the right side of the bar are links for "Welcome, sparker | Manage Account | Logout | Contact | Help".

The main content area features a sidebar on the left with a red background and white text, listing: Home, Services, Products, Applications, Documents, Traffic Video, and Resources. The main content area is titled "Wisconsin TMP System - Transportation Management Plans" and includes a "RULE on WORK ZONE" graphic with the text "Safety and Mobility". Below this, there are several sections:

- Wisconsin TMP System (WisTMP) - Coming Soon**
Enter the Wisconsin TMP System live site.
- WisTMP User Manual and Documentation**
WisTMP User Manual and other training resources.
- Wisconsin TMP System Training**
Enter the Wisconsin TMP System training site.
- New User Account Request Form**
Online form to request a WisTMP login account.
- WisTMP Contact Information**
WISDOT regional contacts and technical support.

At the bottom of the page, there are links for "About | Contact | Help | TOPS Lab".

Contact: wistmp@topslab.wisc.edu



Questions?

WisDOT BTO

Peter Amakobe

Peter.AmakobeAtepe@dot.wi.gov

Travis Feltes

Travis.Feltes@dot.wi.gov

UW TOPS Lab

Nayan Pathak

pathak@engr.wisc.edu

Steven Parker

sparker@engr.wisc.edu

Contact: wistmp@topslab.wisc.edu

