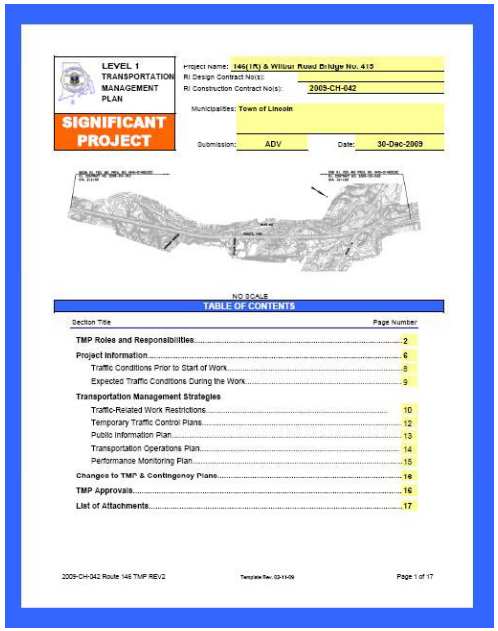
RIDOT
Transportation Management Plans:
An Overview


LEVEL 1 TRANSPORTATION MANAGEMENT PLAN

SIGNIFICANT PROJECT

Project Name: 146 (IR) & Wilbur Road Bridge No. 415

RI Design Contract No(s):

RI Construction Contract No(s): 2003-CH-042

Municipalities: Town of Lincoln

Submission: ADV Date: 30-Dec-2009

NO SCALE

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May 3, 2011

Russell B. Holt, P.E.

Senior Civil Engineer

Traffic Engineering Unit

Rhode Island Department of Transportation

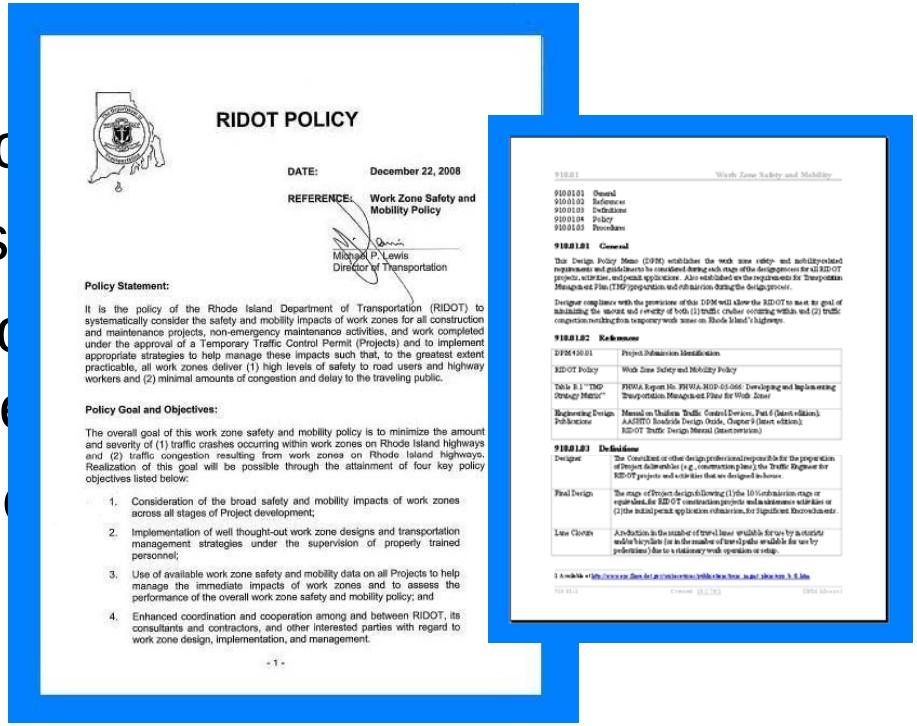
Rhode Island Facts

- Population: **1,018** per Sq. Mi.
- Served by Three Interstate Routes
  - **I-95** (190,000 ADT)
  - **I-195** (170,000 ADT)
  - **I-295** (90,000 ADT)
- RIDOT Owns/Maintains:
  - **1,102** Highway-Miles
    - ~2,900 Lane-Miles
  - **644** Bridges
    - ~20% Structurally Deficient
  - **790** Traffic Signals
- **80 Roadway Fatalities/Year**

Work Zones in Rhode Island do cause impacts!

RIDOT Policy on TMPs

- Work Zone Safety & Mobility Policy/DPM
  - Adopted December 2008
  - Require:
    - Identific
    - Assess
    - Selecti
      Manag
    - TMP D



RIDOT POLICY

DATE: December 22, 2008

REFERENCE: Work Zone Safety and Mobility Policy

Michael P. Lewis
Director of Transportation

Policy Statement:

It is the policy of the Rhode Island Department of Transportation (RIDOT) to systematically consider the safety and mobility impacts of work zones for all construction and maintenance projects, non-emergency maintenance activities, and work completed under the approval of a Temporary Traffic Control Permit (Projects) and to implement appropriate strategies to help manage these impacts such that, to the greatest extent practicable, all work zones deliver (1) high levels of safety to road users and highway workers and (2) minimal amounts of congestion and delay to the traveling public.

Policy Goal and Objectives:

The overall goal of this work zone safety and mobility policy is to minimize the amount and severity of (1) traffic crashes occurring within work zones on Rhode Island highways and (2) traffic congestion resulting from work zones on Rhode Island highways. Realization of this goal will be possible through the attainment of four key policy objectives listed below:

1. Consideration of the broad safety and mobility impacts of work zones across all stages of Project development;
2. Implementation of well thought-out work zone designs and transportation management strategies under the supervision of properly trained personnel;
3. Use of available work zone safety and mobility data on all Projects to help manage the immediate impacts of work zones and to assess the performance of the overall work zone safety and mobility policy; and
4. Enhanced coordination and cooperation among and between RIDOT, its consultants and contractors, and other interested parties with regard to work zone design, implementation, and management.

- 1 -

RIDOT Work Zone Impact Levels

Work Zone Impact Level	Work Anticipated to Include Lane Closures?	Anticipated Duration of Work	ADT on Most Heavily Traveled Roadway within Project Limits	Anticipated Level of Public Interest	Anticipated Degree of Adverse Impact to Road Users Without Mitigation	Possible Examples
1	Yes	Very Long	> 50,000	Very High	Very High	Reconstruction Projects on major freeways
2	Yes	Moderate to Very Long	> 15,000	Moderate to High	High	Major bridge Projects on principal arterials
3	Yes	Short to Very Long	Any	Low to Moderate	Moderate	Resurfacing Projects on minor arterials
4	No	Short to Long	Any	Low	Low	Short-term maintenance activities

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RIDOT Transportation Management Strategies

1. Traffic Control, Coordination, Contracting (TCC&C) Strategies
   - A. Traffic Control Strategies
   - B. Traffic Control Devices
   - C. Project Coordination and Contracting Strategies

2. Public Information (PI) Strategies
   - A. Public Awareness Strategies
   - B. Road User Information Strategies

3. Transportation Operations (TO) Strategies
   - A. Demand Management Strategies
   - B. Corridor/Network Management Strategies
   - C. Work Zone Safety Management Strategies
   - D. Traffic/Incident Management and Enforcement Strategies

4. Performance Monitoring (PM) Strategies

RIDOT Transportation Management Strategies

PERFORMANCE MONITORING STRATEGIES
Team meetings
Windshield surveys
Public surveys
Surveillance: Traffic counts
Surveillance: Traffic queues/delays
Surveillance: Travel times
Surveillance: Crash data
Assessment: Mobility
Assessment: Safety
Road safety audits (construction)

TMP Development on RIDOT Projects

Preliminary Design

Final Design

TABLE 1. Primary Work Zone-Related Tasks/Responsibilities during Project Development

	Task Description	*Responsible Party (Assisting Party)*			
PLANNING[1]	Assign Project Work Zone Impact Level	CPS or PM			
	Work Zone Impact Level	**1**	**2**	**3**	**4**
		SIGNIFICANT	SIGNIFICANT		
	Anticipated Level of Adverse Impact to Road Users without Mitigation	VERY HIGH	HIGH	MODERATE	LOW
PRELIMINARY DESIGN	Identify relevant TMP stakeholders	D (PM)	D (PM)		
	Meet with CM, PA, CS, & other TMP stakeholders to Identify work zone safety and mobility concerns	PM (D)	PM (D)		
	Identify potential PI and TO Strategies & Estimate their implementation costs[2]	D	D		
	Identify preliminary construction sequence approach(es)	D	D		
	Perform preliminary work zone impacts assessment & Reevaluate Work Zone Impact Level	D	D	D	
	Initiate appropriate level TMP	D	D		
FINAL DESIGN	Update relevant TMP stakeholders list & Identify new work zone safety and mobility concerns[3]	PM (D)	PM (D)		
	Select appropriate PI and TO Strategies	D	D	D	
	Develop (and/or Select RIDOT Typical) TTC Plans	D	D	D	D
	Perform final work zone impacts assessment(s) & Reevaluate Work Zone Impact Level	D	D	D	D
	Quantitatively analyze traffic impacts	D	D	D[4]	
	Select recommended construction sequence approach	D	D		
	Estimate TMP implementation costs[2] & Include provisions for TMP implementation in PS&E	D	D	D[5]	D[5]
	Develop/Complete appropriate level TMP	D	D	D	D
	Approve TMP[6]	TMC, STE, & CE	TMC, STE, & CE	TMC, STE, & CE	TMC & STE
PRE-CON	Assign TMP Implementation Managers	CM & C	CM & C	CM & C or M	CM & C or M

TMP Development on RIDOT Projects

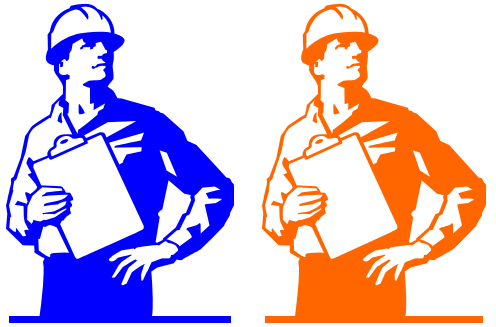
- Designer obtains appropriate *TMP Template* from RIDOT
  - One Template (Microsoft Excel format) for each Work Zone Impact Level
  - Guidance notes provided in comment form on *TMP Templates*
- TMP updated iteratively throughout Design as strategies are selected, TTC plans are developed, and Project changes occur
  - PI, TO, and PM strategies are explicitly identified in TMP
  - TCC&C strategies are not explicitly identified in TMP

TMP Development on RIDOT Projects

- Final Design Documentation
  - TMP submitted as part of each major Final Design submission (e.g., 30%, 90%, PS&E, ADV, & Award)
    - One copy of TMP typically submitted to the following:
      - Project Manager - Construction Management Section
      - Traffic Engineer - Transportation Management Center
      - FHWA Rhode Island Division Office (if Project oversight)
  - Work zone safety and/or mobility-related analyses/reports should be provided as TMP attachments unless already included in other Final Design reports

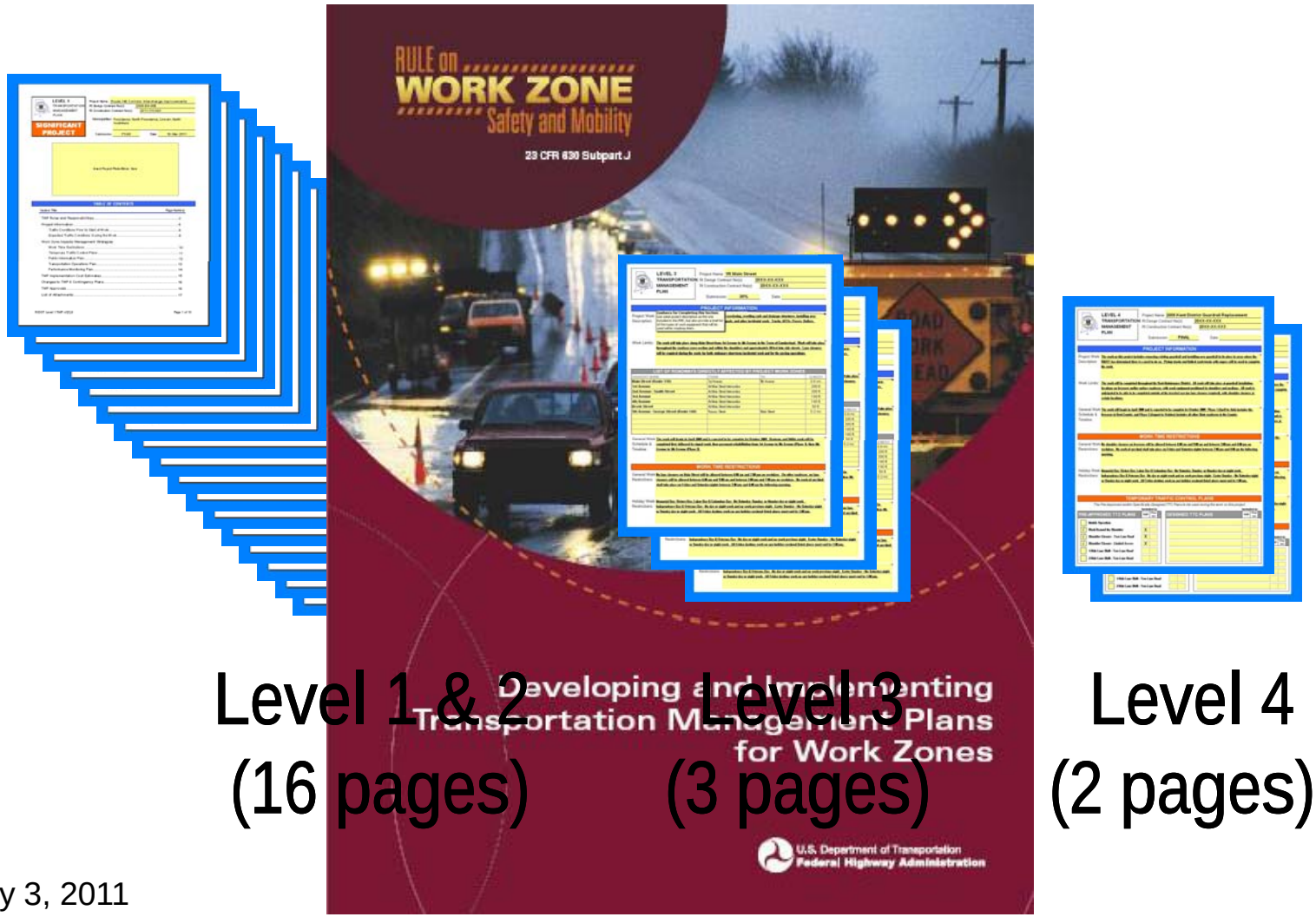
TMP Development on RIDOT Projects

- RIDOT arranges for identification of *TMP Implementation Managers* and TMP Approvals



  - For **Significant Projects**, the RIDOT and Designer indicate appropriate *TMP Development Managers* for the Project

RIDOT TMP Templates

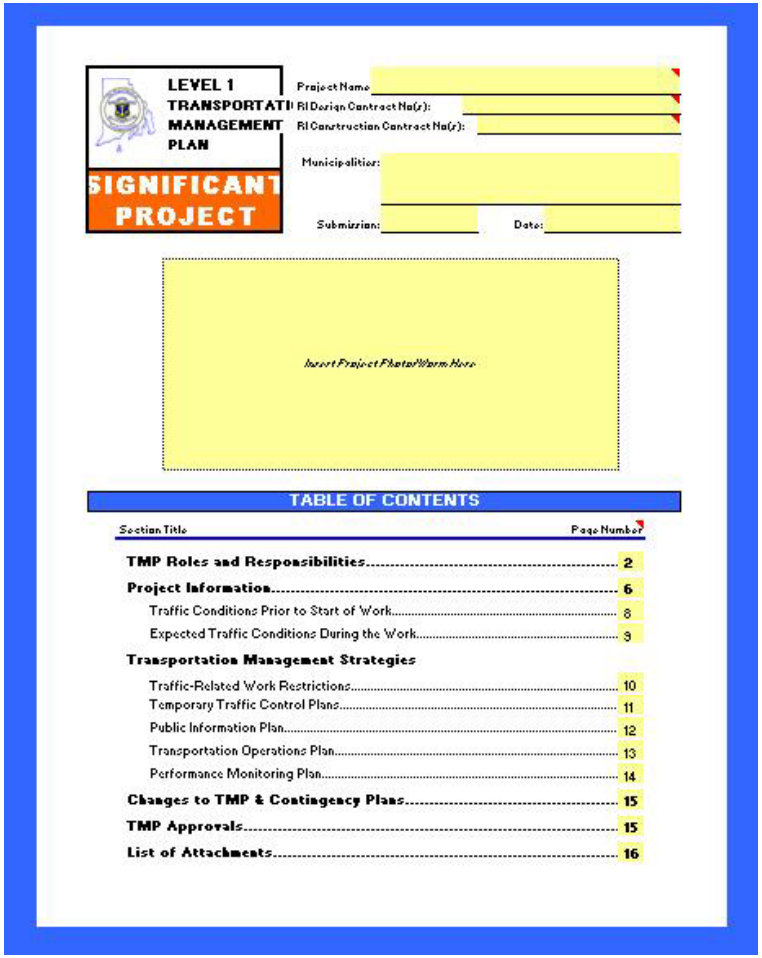


Level 1 & 2 (16 pages)

Level 3 (3 pages)

Level 4 (2 pages)

(Browse Thru TMP Templates)



LEVEL 1
TRANSPORTATI
MANAGEMENT
PLAN
SIGNIFICANT
PROJECT

Project Name:
RI Design Contract No(s):
RI Construction Contract No(s):
Municipalities:
Submission:
Date:

Insert Project Photo/Form Here

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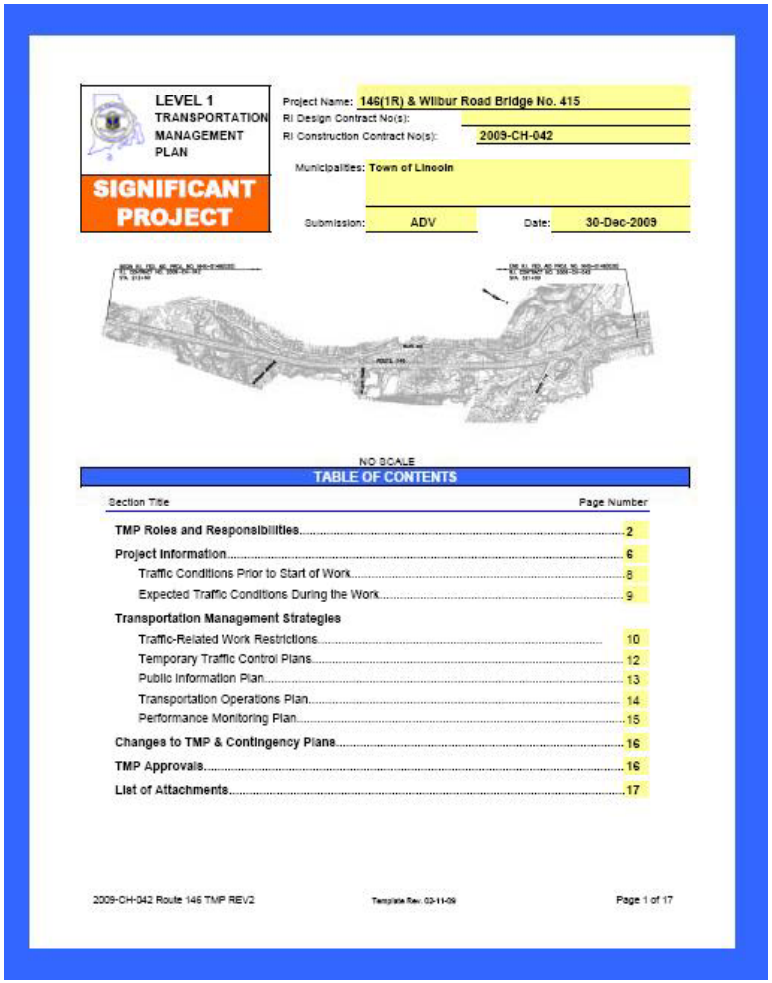
(Browse Thru Example TMP)



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Municipalities: Town of Lincoln

Submission: ADV Date: 30-Dec-2009

NO SCALE

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RIDOT TMP Training/Resources

- Late 2008: Introductory session at local ITE Meeting

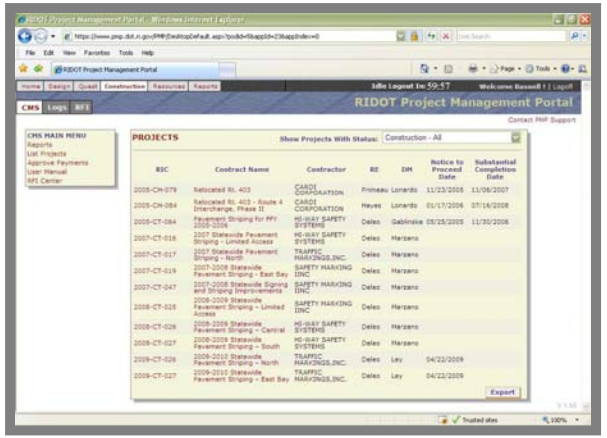
- Early 2009: RIDOT Training Sessions
  - Internal (Designers, Managers, Field Staff)
  - External (Consultants)

- Established E-Mail Account:

  RIDOTWorkZones@dot.ri.gov

Challenges / Next Steps

- Designers don't always consider full realm of potential strategies
- Inefficiencies with revising TMPs in construction
- Ideally TMPs will be incorporated into RIDOT's web-based Project Management Portal (PMP)



Questions Welcome...

RIDOTWorkZones@dot.ri.gov