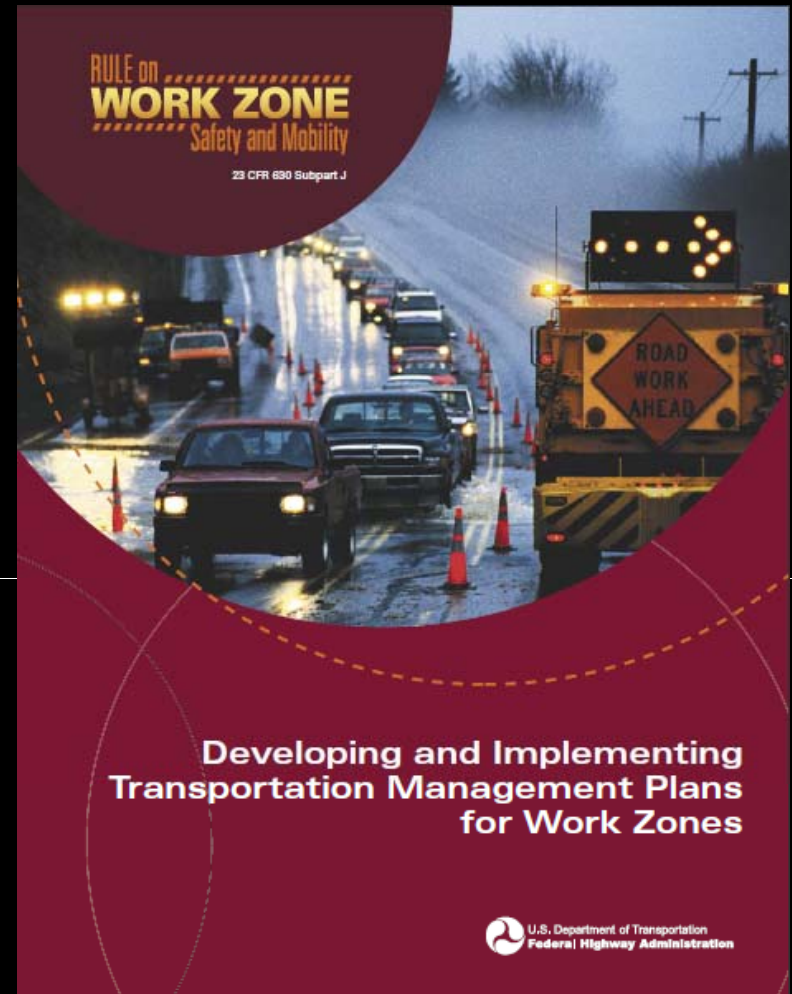


Intelligent Work Zones

Traffic Management Plans (TMP)

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One Team. Infinite Solutions.



Stantec

Introduction

What is a *Traffic Management Plan (TMP)*?

- A transportation management plan lays out a set of coordinated transportation management strategies
- Describes how they will be used to manage the work zone impacts of a road project
- Includes TTC, public information, travel demand management, signal retiming, traffic incident management

Legislation

Work Zone Safety and Mobility Rule (9/2004)

- Required for all Federal-aid funded projects
- Transportation Management Strategies
- Expand thinking beyond the project work zone
- Expand work zone impacts beyond traffic safety and control
- Advocates innovative thinking

RULE on
WORK ZONE
Safety and Mobility

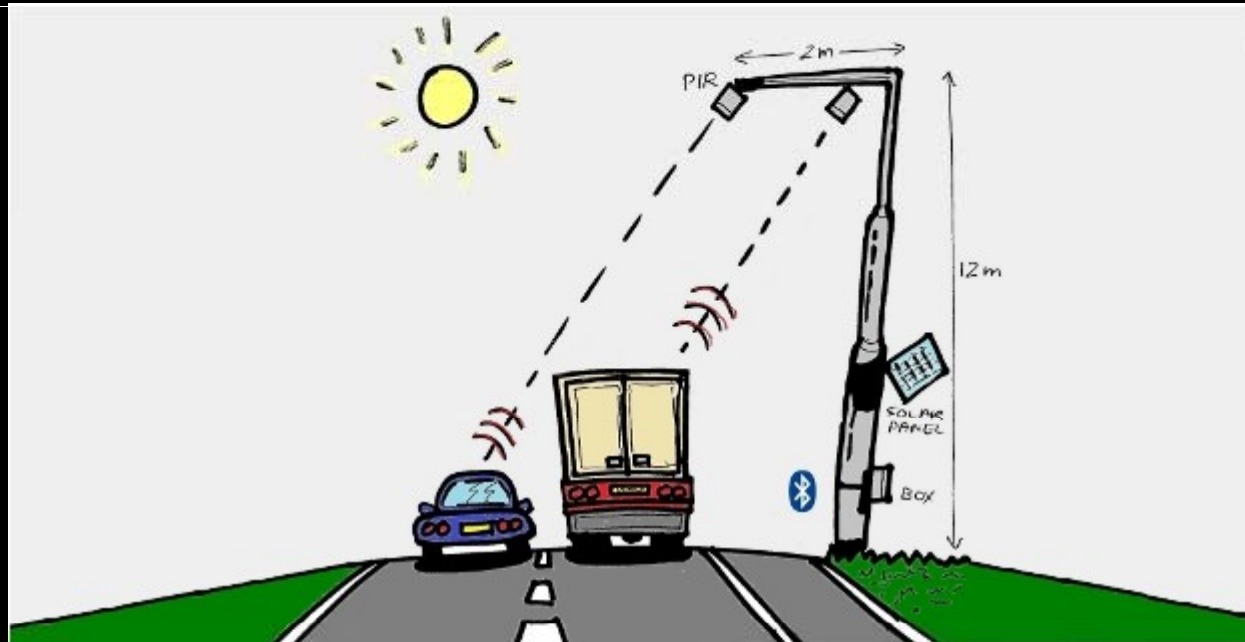
ITS Use in TMPs

- Data collection
- Intelligent Work Zones
- Traveler Information
- Travel Demand Management
- Traffic Incident Management
- Signal Timing



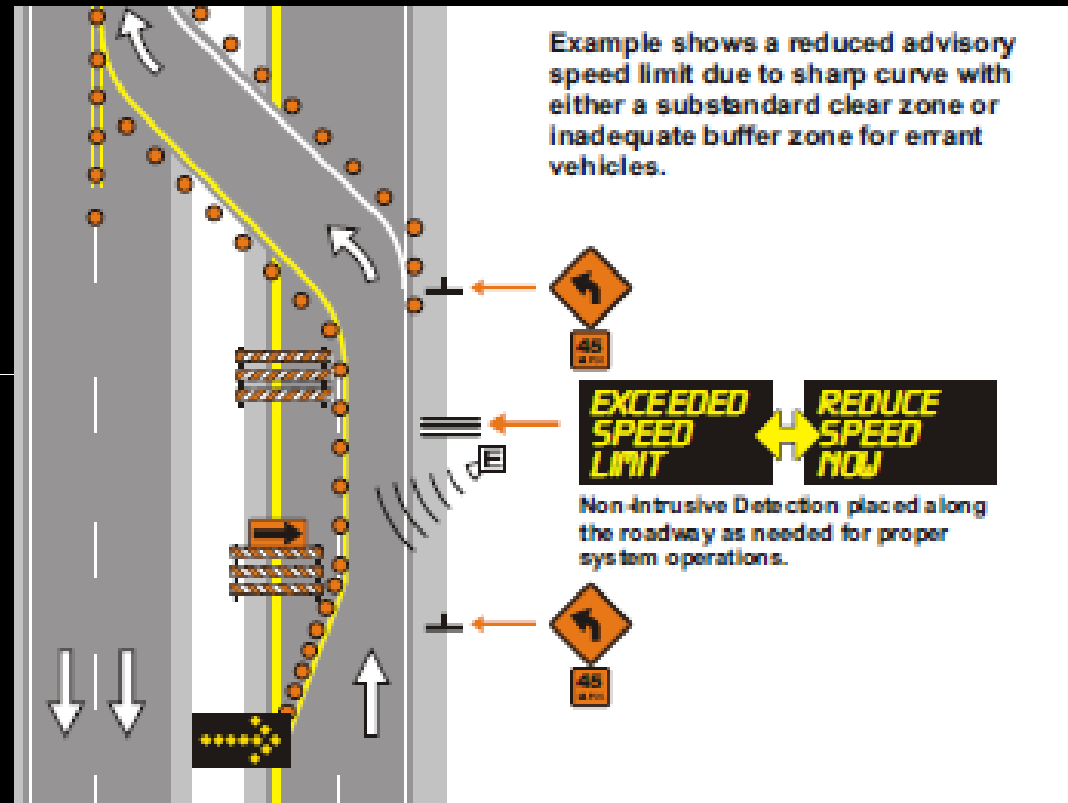
Data Collection

- Traffic Volume Data
- Travel Time Data
- Classification



Intelligent Work Zones

- Travel Time Information
- Speed Advisory
- Stopped Traffic
- Dynamic Merge
- Traffic Adaptive Signals
- Temporary Ramp Metering
- Work Zone Intrusion Warning



Traveler Information

- Pre-trip
- Driver en-route
- Route Guidance



Travel Demand Management

- Traveler Information
- Alternative Construction Routes & Detours
- Temporary Ramp Metering
- Ramp Closures/Relocation



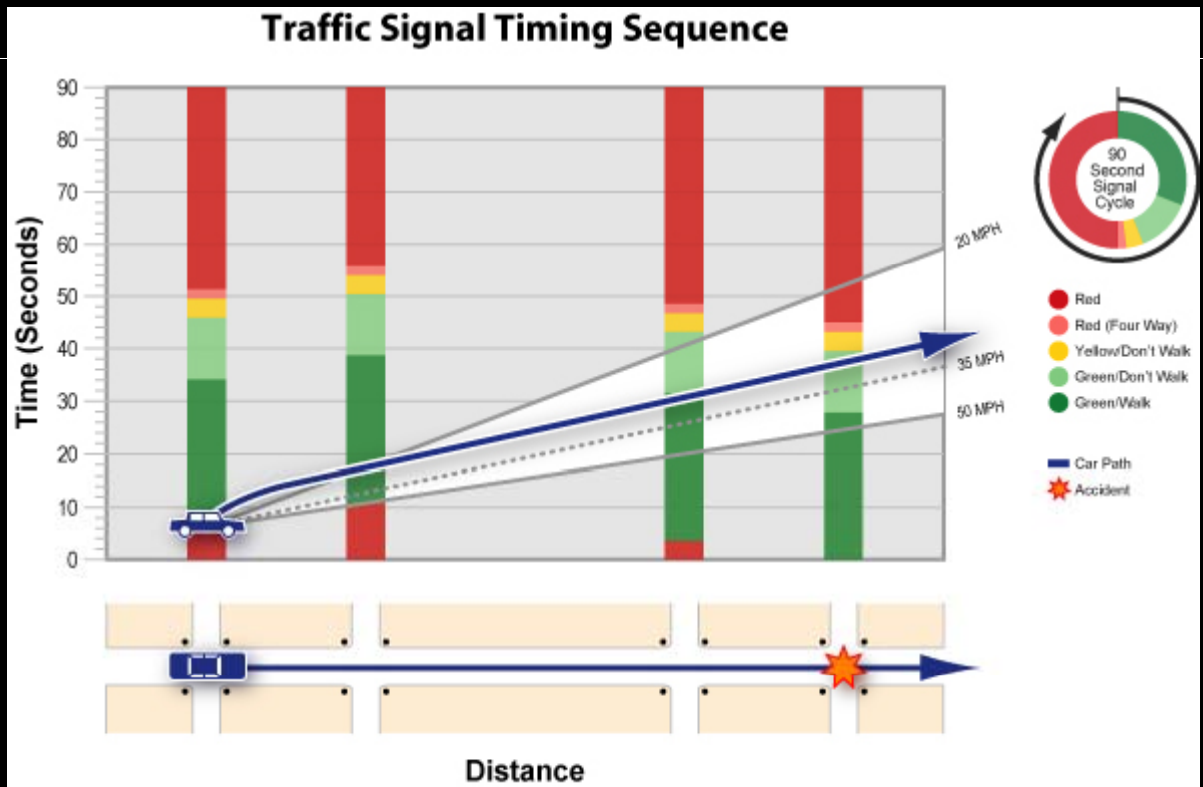
Traffic Incident Management

- Motorist Assistance Patrol
- Tow
- Traffic Management Centers
- Detour/ Alternative Routes
- Emergency Responder Project Awareness



Traffic Signal Timing

- Alternative Routes
- Ramp Intersections
- Incident Timing

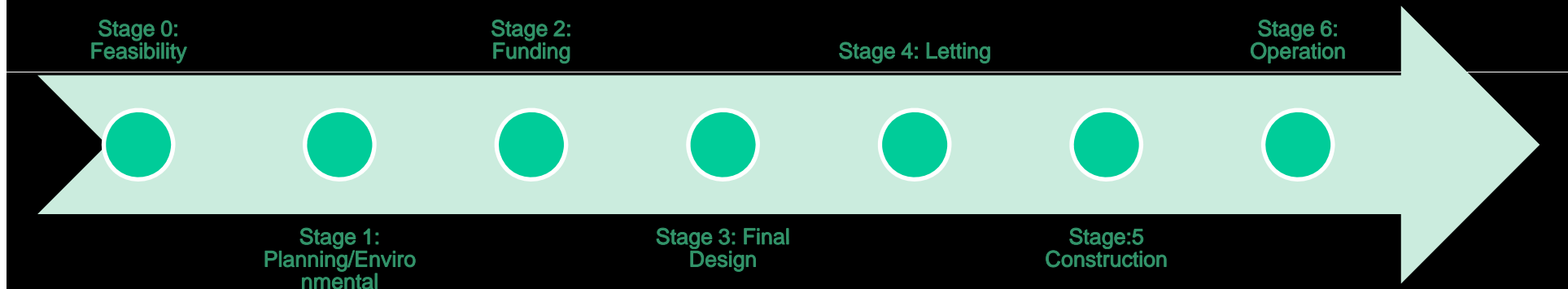


Cross-cutting

- Multi-tasked Components
- Comprehensive Plan



TMP Development



Stage 4: Letting

- Specifications
 - Avoid individual work zone set-up bid units
 - Include a range of fine-tuning scenarios in item description
 - Avoid one-size fits all standards



- Fully discuss at pre-bid meeting
- Include integrated IWZ management
- Prepare and follow implementation documentation plan

Tort Liability

- Documentation, Documentation, Documentation
 - Demonstrate the logic behind your decisions
 - Peer Review
-
- Communicate with contractors
 - Your decision doesn't have to be the correct one
 - The court will not substitute its judgment for that of a transportation agency
 - The court will not second guess your design unless it is outrageous and not based on any conceivable factual scenario or guidelines

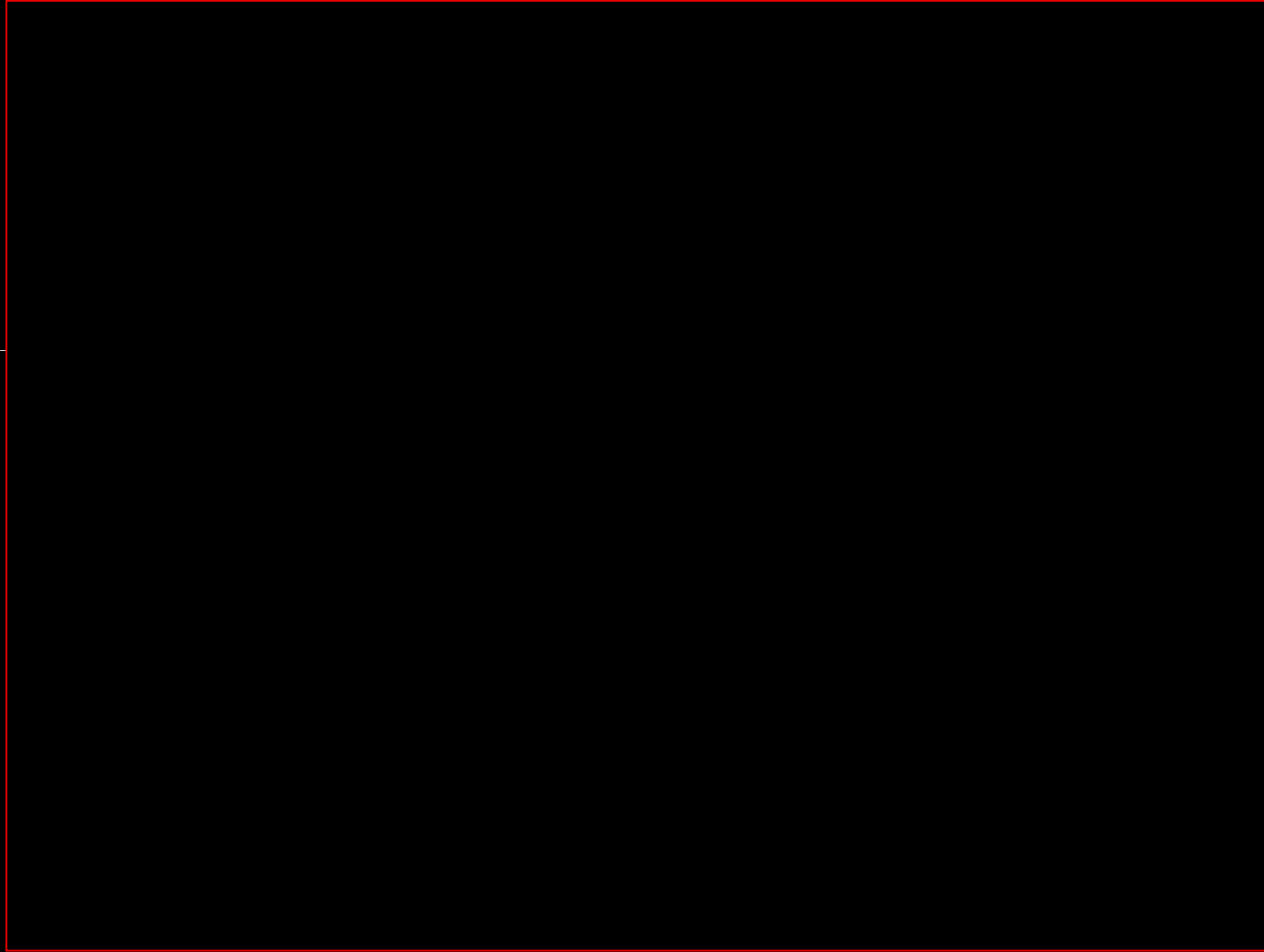
Tort Liability...

Use logic and stay general within the guidelines of your standards, but do not hesitate to use innovative thinking

In terms of liability.....transportation professionals are given much more discretion



Example Intelligent Work Zone



Food for Thought

Albert Einstein... "The definition of insanity... doing the same thing over and over again and expecting different results."



Conclusion

- Overall impacts
- Innovate
- Engineer

