SHRP2

STRATEGIC HIGHWAY RESEARCH PROGRAM

Accelerating solutions for highway safety, renewal, reliability, and capacity

Regional Operations Forum

From Performance Measures to Performance Management

Tony Kratofil, PE

Metro Region Engineer, Michigan DOT

TRANSPORTATION RESEARCH BOARD

OF THE NATIONAL ACADEMIES

"Vision without execution is hallucination."

- Thomas A. Edison,
American inventor, scientist and entrepreneur
(1847-1931)

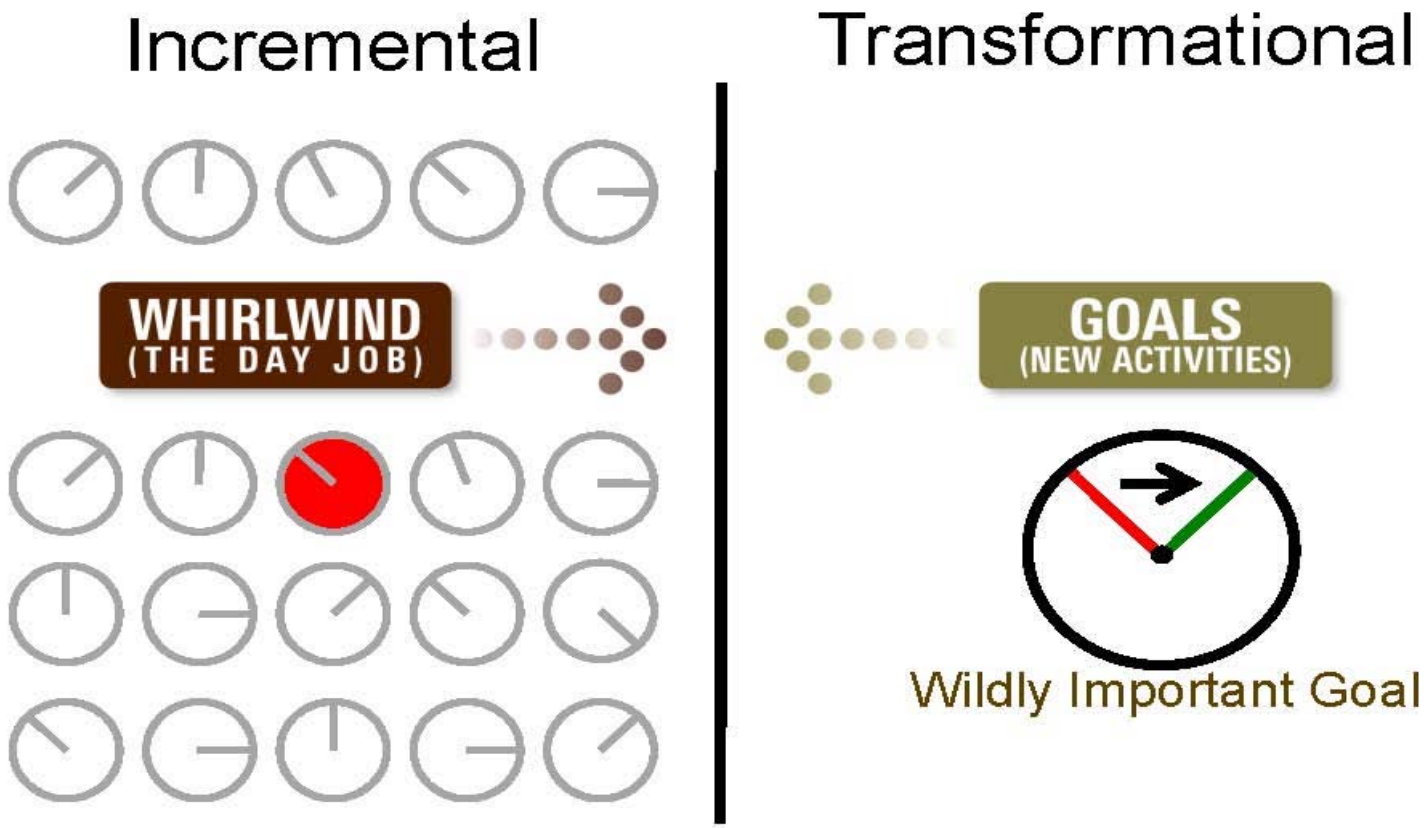
"Discipline is the bridge between goals and accomplishment."

- Jim Rohn,
American entrepreneur, author and motivational speaker
(1930-2009)

Performance Management Process

1. Focus on the “Wildly Important” WIG = X to Y by WHEN
2. Act on the Lead Measures
3. Keep a Compelling Players’ Scoreboard
4. Create a Cadence of Accountability

Discipline 1: Focus on the Wildly Important



80% of activities produce 20% of results **20% of activities produce 80% of results**

Lags and Leads

- LAG Measures
  - Measures something that has already happened (can't do anything about it now).
  - Typically represents the end result we want to see.

- LEAD Measures
  - Measures something we can act on in the future.
  - A good LEAD has the right cause-effect relationship on the LAG.
  - Typically reflects a behavior we want to turn into a habit, institutionalize.

Lags and Leads

Examples:

- GOAL: I want to lose weight.
  - LAG:
    - Decrease my weight from (X) 200 lbs to (Y) 180 lbs by (WHEN) December 31, 2015.
  - LEADS:
    - Diet: Limit my caloric intake to 2000 calories/day, 90% of the time.
    - Exercise: Jog 30 minutes a day, 90% of the time.

User Delay Cost

- Traditional project level taken to system level
  - Calculation based on travel volumes, speeds
  - Sensor and probe vehicle data
- Performance measurement tool evolution
  - “Red Images” and OpsTracker in 2011 & 2012
  - Regional Integrated Transportation Information System (RITIS) in 2013

UDC & TTR

User Delay Cost	Travel Time Reliability
Tangible, Relatable Unit of Measure	More Complex “Index”
Real Time, Up to the Minute	Good for Long Term Trends, but Loses Meaning at Hourly Increments
Accounts Well for Variation in Volume, Location & Time of Day Impacts	Not as Reflective of Volume, Location, and Time of Day Impacts
Actionable: Allows for Proactive & Active Management that Connect to Results	Difficult to Tie Actions to Outcomes

Managing UDC with 4DX

WIG: Limit 2013 User Delay Cost to $304.4 Million by 12/31/13 (Represents a 10% Improvement from 2012)

Winter Weather Lag:

Regain Time < 2 hours 80% of time

Lead 1:
Perform After Storm Huddles 80% of the time

Lead 2:
Compliance with Salting Policies 80% of the time

TIM Lag:

Limit 1+ Lane Closure 2+ hour Incidents to 203

Lead 1:
Perform Post Incident Reviews 50% of the time

Work Zone Lag:

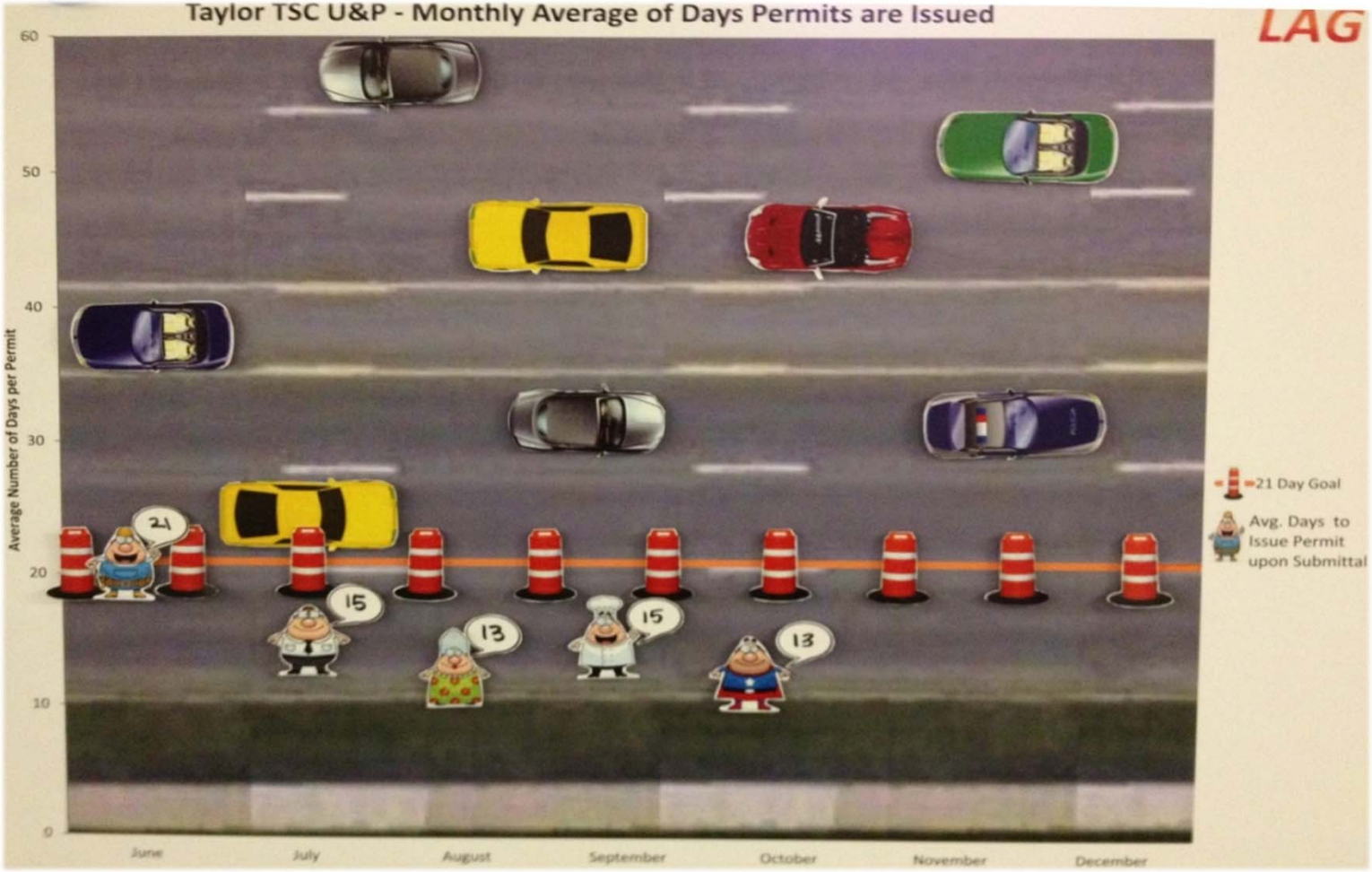
Limit Non-Recurring Construction UDC to $80.3M

Lead 1:
Perform WZ Reviews 80% of the time

Lead 2:
Compare Predicted vs. Actual UDC

Compelling Players Scoreboard

Compelling Players Scoreboard



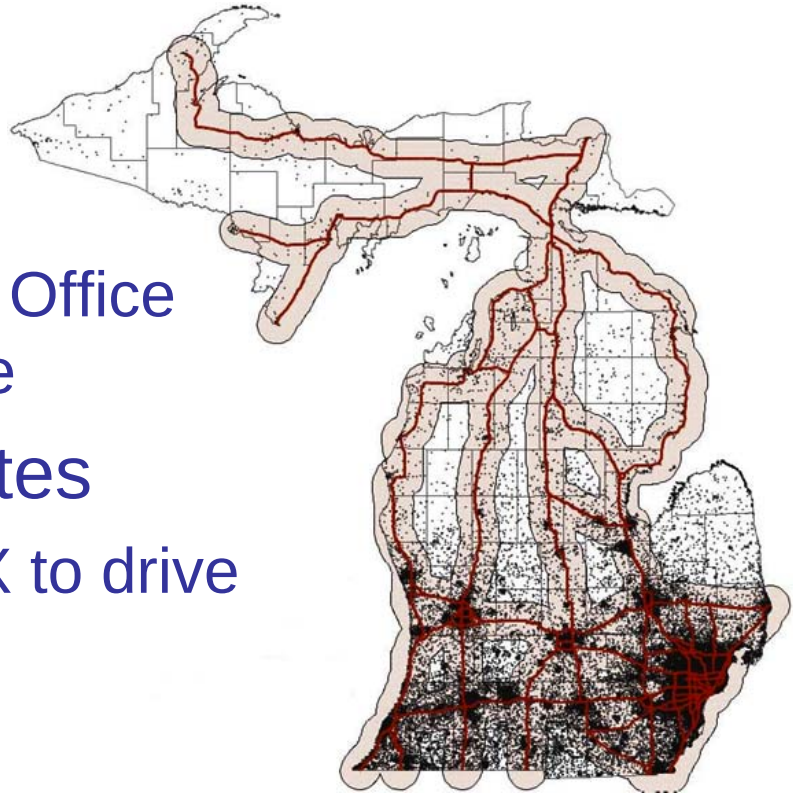
Cadence of Accountability

Making the “Strategic” the “Urgent”

- Weekly (or bi-weekly, if you must)
  - Schedule small (15-30 minutes) blocks of time.
  - Same time, same day.
  - Create a habit, even when it’s hard to do.
- Deliberate Process
  - What’s the score (LAG and LEAD)
  - What did I commit to last week? (and did I do it?)
  - What do I commit to this week to move the needle?

Michigan's Implementation

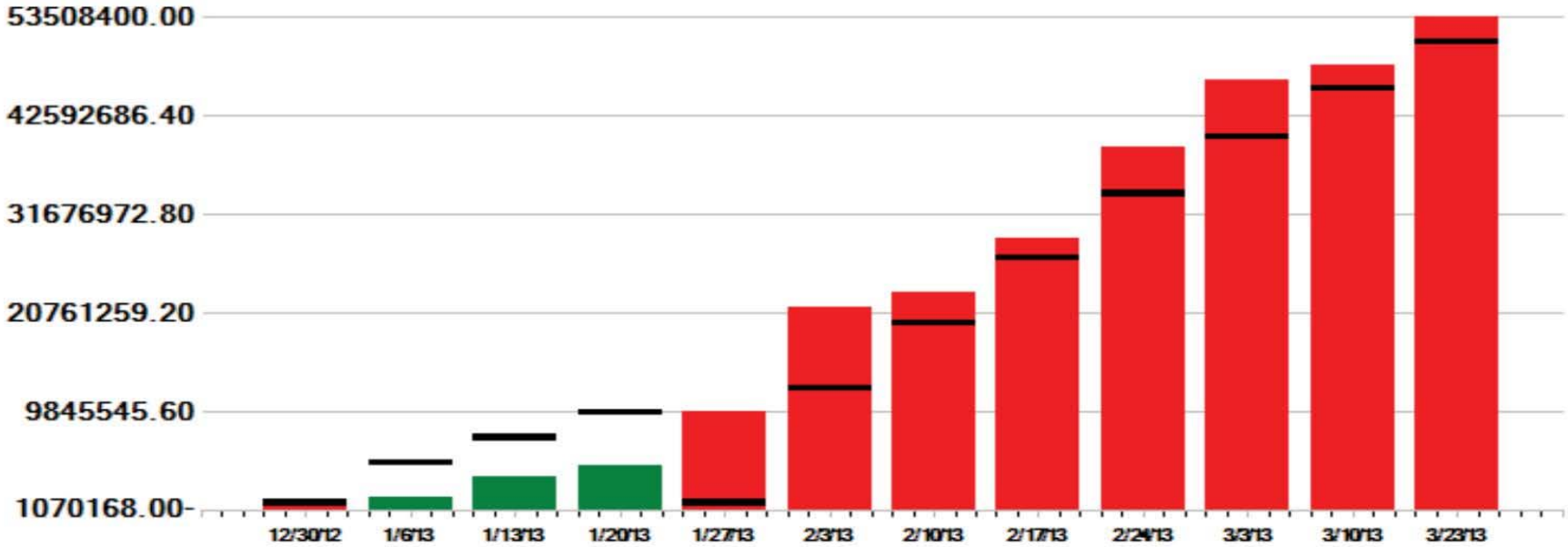
- 2011: I-94 Southwest Region
- 2012: I-94 Corridor-wide
  - 3 regions, 8 TSCs, and Central Office Operations Field Services office
- 2013: Statewide, multiple routes
  - Part of a larger adoption of 4DX to drive higher Customer Satisfaction
  - Mostly freeway, all 7 regions



Scoreboard for Team: Statewide

UDC Statewide

as of 3/23/2013: Current: $53.51M / Target: $51.18M



Limit the 2013 user delay cost to $304.4 million, between 1/1/13 and 12/31/13.

Red

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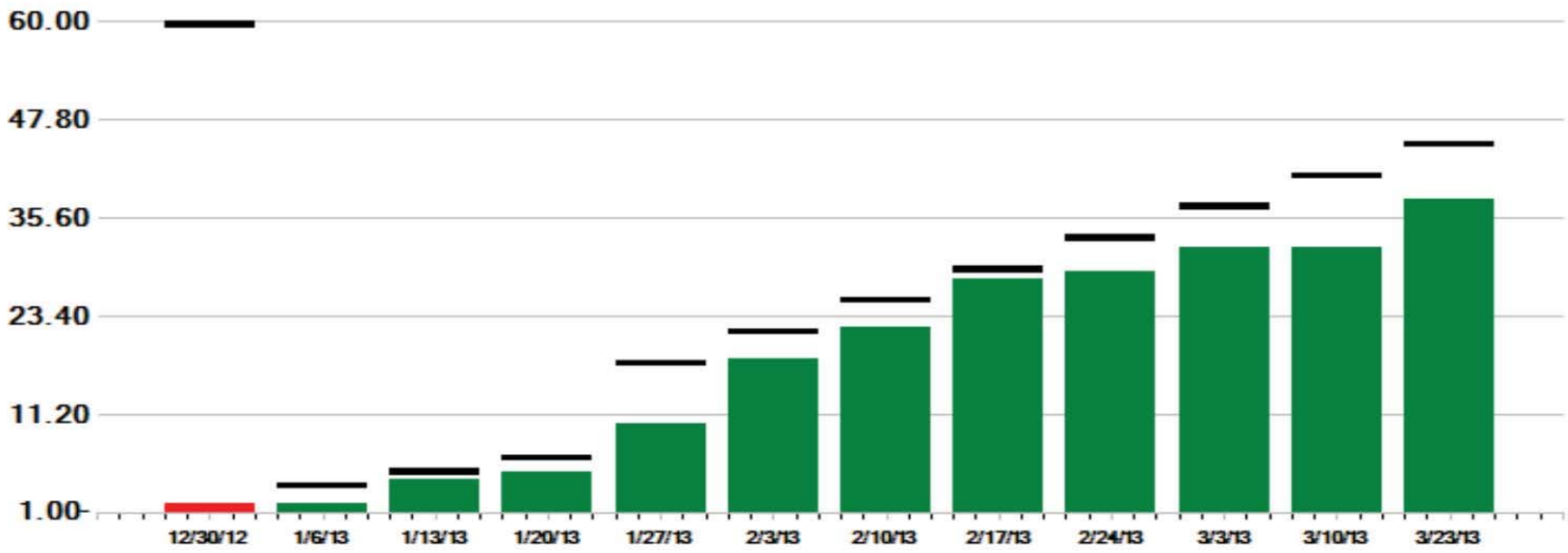
Scoreboard for Team: Statewide

Traffic Incident Management

as of 3/23/2013: Current: 38 / Target: 45.17



Limit the number of traffic incidents closing one or more lanes lasting longer than two hours to 203.

Green

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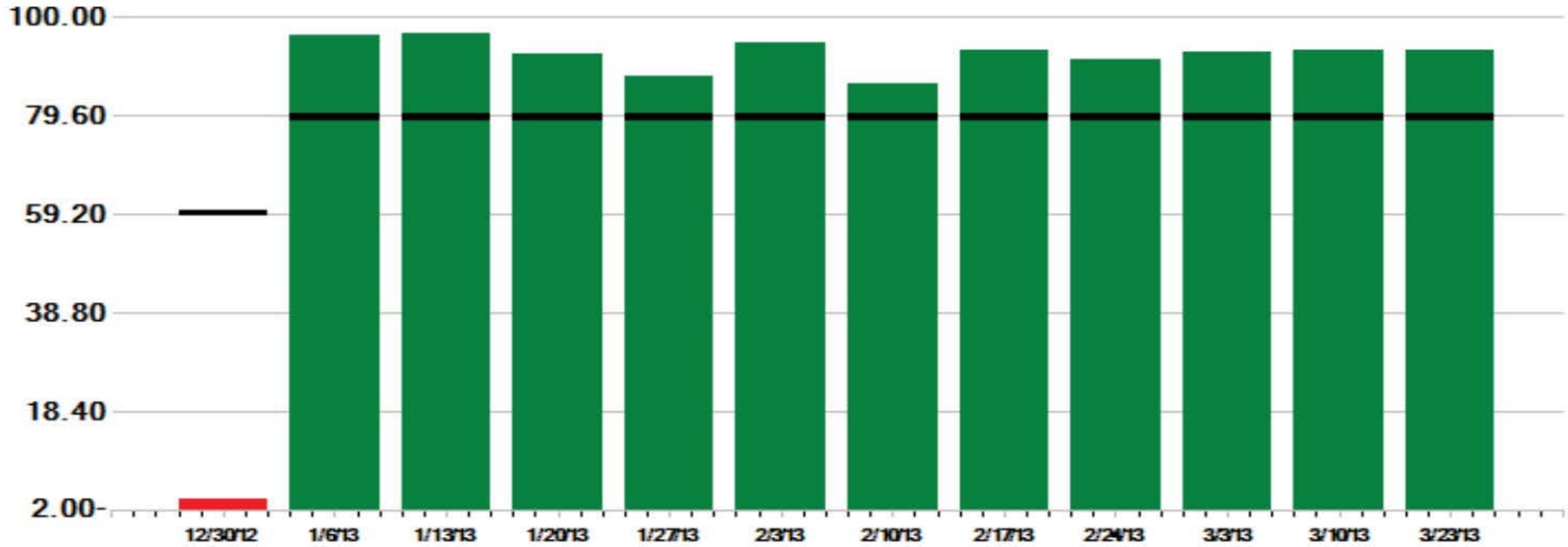
Scoreboard for Team: Statewide

Weather Travel Impacts

as of 3/23/2013: Current: 93.15% / Target: 80%



Regain normal speeds in two hours or less, 80 percent of the time for winter weather events.

Green

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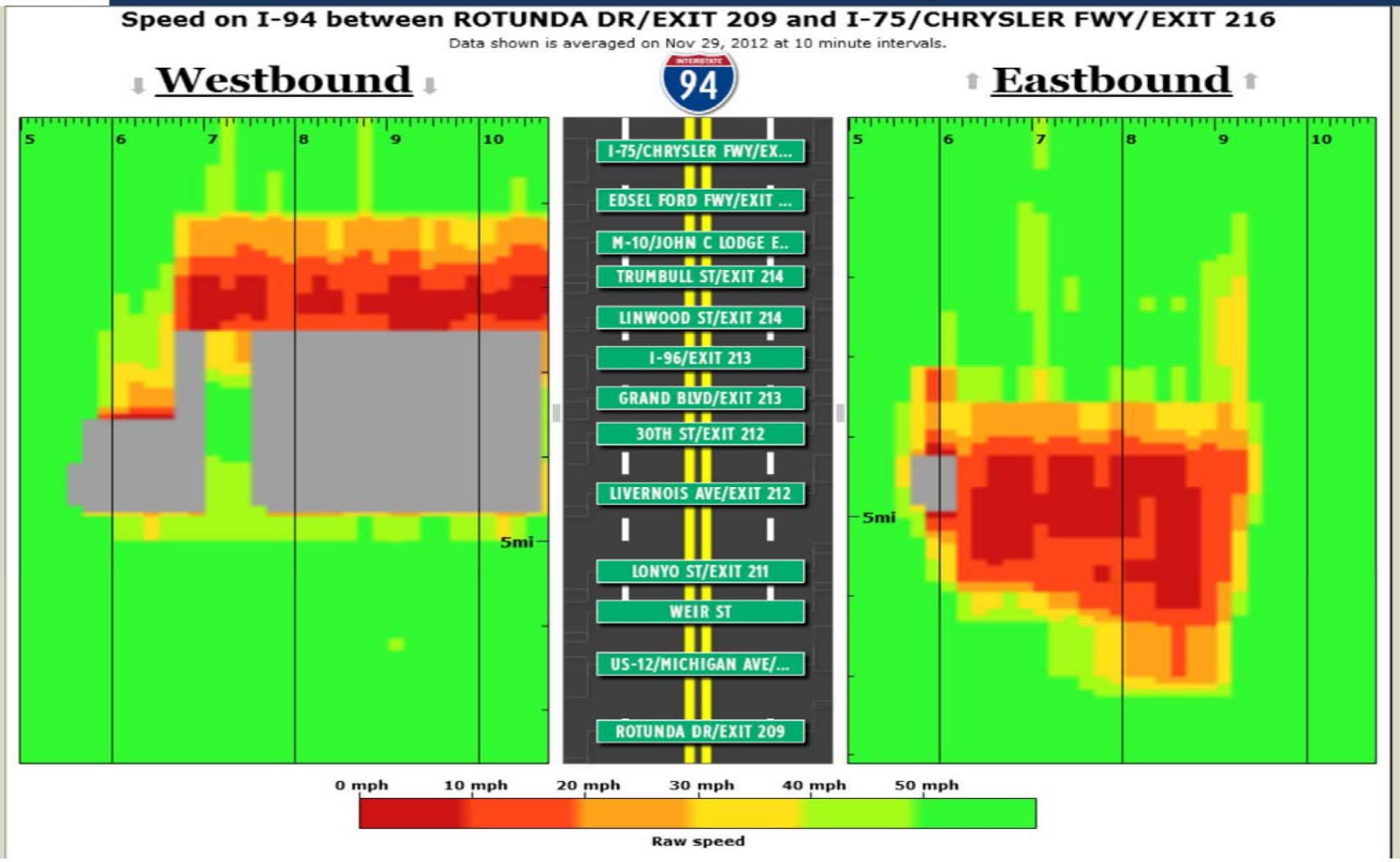
RITIS – Congestion Scan

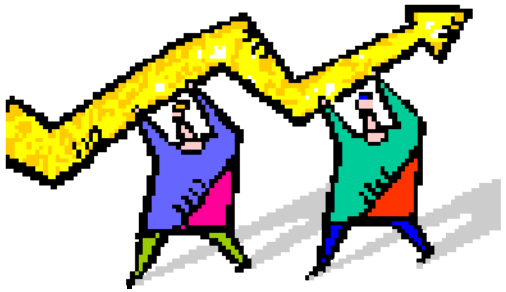


Outcomes

- Broad Front Line Staff Engagement
- Rapid Adoption of Best Practices, esp. TIM
- Active Response & Proactive Management of Work Zones, Traffic Incidents, Weather Events
- Better Transparency into Day to Day System Operations

Summary

- Look for Performance Measures that:
  - Facilitate Performance Management
  - Drive Performance Improvement



- Desired Outcomes:
  - Improving Travel Reliability & Traffic Flow (System)
  - Driving Cultural and Behavior Changes to Actively & Proactively Operate the System (Organization)

Closing Thoughts Going into CMM

- You're starting from a position of strength – it will only get better.
- Leverage the Caltrans Strategic Plan to generate a TSM&O Strategic Plan.
  (for District 12? by corridor?)
- Corridor approach will likely be helpful in accelerating your progress.
- Build off positive practices from within your state and elsewhere.