

**OHIO DEPARTMENT OF TRANSPORTATION**  
 JOHN R. KASICH, GOVERNOR      JERRY WRAY, DIRECTOR



**ODOT Road Maintenance**

Thomas Lyden  
 Administrator  
 Office of Maintenance Administration

**March 6, 2014**

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**Today's Presentation**

- ODOT's Organization
- Winter Road Maintenance
- Spring/Summer/Fall Maintenance
- Resources

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**ODOT's Mission**

To provide easy movement of people and goods from place to place, we will:

- Take care of what we have;
- Make our system work better;
- Improve safety;
- Enhance capacity.

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## Organization

- ☉ Director Jerry Wray
- ☉ 12 District Offices
- ☉ 88 County Garages
- ☉ 123 Outposts
- ☉ Central Office - Columbus
- ☉ Approximately 5,000 employees



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## Responsibilities (ORC 5501.11)

- ☉ Construct, reconstruct, widen, resurface, maintain, and repair the state system of highways, bridges and culverts
- ☉ Cooperate with the federal government
- ☉ Conduct research
- ☉ Cooperate with political subdivisions of the state



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## Districts and Counties



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## Critical Success Factors

- CSF's are the key areas where our agency must perform well on a consistent basis to achieve its mission.
  - People
  - System Conditions
  - Operations
  - Safety
  - Capital Program



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## Results/Resources

- "Results over resources equals return on investment."
- Our objective is to establish an optimum level of operation that will allow us to achieve maximum performance and productivity.



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## Maintenance CSF's

- Snow & Ice Performance Evaluator (SNIPE)
- Maintenance Condition Rating (MCR)



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## Responsibilities

- ☉ Interstates
- ☉ US, and SR's outside municipal boundaries
- ☉ Route marking signs within municipal boundaries



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## Bridges

- ☉ Inventory and Inspection
- ☉ Major Maintenance
- ☉ Routine Maintenance
- ☉ County/Township bridges over ODOT facilities
  - ☉ Embankment
  - ☉ Guardrail
  - ☉ Appurtenances



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## Outside Our Jurisdiction

- ☉ US, and SR's inside municipal boundaries
- ☉ Drive pipes
- ☉ Ditches off the right of way
- ☉ Drive ways
- ☉ Drainage in a village
- ☉ Items off the right of way (except stop signs)



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## Consent Legislation

- Within Villages, and with consent, ODOT will maintain
  - Traveled portion of the road
  - Centerline and lane line markings
  - Regulatory signs
  - Snow and Ice control



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## Winter Weather Maintenance



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AVERAGE ANNUAL SNOWFALL  
(IN INCHES)



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## Snow & Ice Control

- ☉ **Before Storm**
  - ☉ Material Contracts
  - ☉ Weather Forecasting
- ☉ **During Storm**
  - ☉ Treatment Guidelines
  - ☉ Monitor Road Conditions
- ☉ **After Storm**
  - ☉ Critical Success Factor



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## Snow & Ice Contracts

- ☉ **Salt (# 018)**
- ☉ **Treated Ice Removal Salt (DAS RS 902014)**
- ☉ **Liquid De-Icer (# 124)**
- ☉ **Liquid Calcium Chloride (# 127)**
- ☉ **Contact:**
  - ☉ Jim Schurch
  - ☉ 614-644-7870



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## Weather Services

- ☉ **Weather Condition and Forecasting Services**
  - ☉ Meteorologists on duty 24 hours per day
  - ☉ Live meteorological consultation
- ☉ **Pavement Condition Forecasting**
- ☉ **Alert Notification Services**
- ☉ **Pre Storm Briefings**



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## Road Weather Information System

- ☉ Two Questions
  - ☉ What am I going to get?
  - ☉ When am I going to get it?
- ☉ 174 Sites
- ☉ > 400 Pavement Sensors



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## RWIS Data

- ☉ Temperature
  - ☉ Air
  - ☉ Pavement
  - ☉ Sub-surface
- ☉ Wind Speed
- ☉ Precipitation
- ☉ Surface Conditions



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## SCAN Web

SCAN Web <small>ssi</small>		District 4 126-Killian Rd. Over I-77 Site Status	
Current Time: 03/29/2014 15:03 EST			
Data Time: 03/29/2014 15:02 EST			
Air Data		Wind Data	
Temp	Wind	Dir	Speed
18F	33%	42	13F
13F	4F	18F	0 mph
Precipitation		Accumulation	
Type	Rate	Start Time	End Time
None	0.0 in	01/27/2014 20:32	01/29/2014 11:34
Solar Radiation		Snow Depth	
10 min	24 hr	Total Sun	
-	-	-	-
Surface Data			
Sensor	Temp	Wt	Sub
EB Bridge (2)	24.4F	11F	95
Subsurface Data			
Sensor	Temp		
Subsurface Sensor (2)	11F		



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## SCAN Web Maps



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## During the Storm

- **Material Application Guidelines**
  - Temperature Conditions
  - Equipment
  - Light, Heavy, Freezing Rain
- **Route Application Guidelines**
  - Route Priority
  - During/After Event Actions
  - Material Use

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## Public Information



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## Cameras



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## Winter Conditions



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## S.N.I.P.E.

- Measures how long it takes for maintenance crews to recover priority system roadway speeds back to the expected speed following a winter weather event.
- The expected speed is calculated from a speed data provider (INRIX) and is based on ODOT Road Weather Information System

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## The Other 8 Months of the Year

- Vegetation Management = 9%
- Litter = 6%
- Drainage Structures = 5%
- Ditching = 5%
- Mowing = 5%
- Asphalt Pavement Repair = 5%
- Berming = 4%
- Pothole Patching = 4%



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## Force Account Limits

- ORC 5517.02
- Construction, reconstruction of a highway, bridge or culvert or installation of a traffic signal limited to:
  - \$30,000 per lane mile
  - \$60,000 per traffic signal or other single project
  - Amounts indexed to inflation



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## Exceptions

- Replace single span bridge if deck area < 700 sq ft
- Replace bearings, beams, and deck of any bridge if deck area < 800 sq ft
- Construct/replace culvert if waterway opening < 52 sq ft
- Pave or patch asphalt surface < 120 tons per lane mile



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## Litter

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## Adopt A Highway

- 1,484 Organizations
- 26,000 Bags per Year
- \$250,000 Annual Savings

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## Inmate Litter

- ODOT/ODRC MOU
- 14 Institutions
- ODOT funds supervisor
- Sheriff litter programs

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## Maintenance Condition Rating

- ☉ Quality control measure
- ☉ Four categories
  - ☉ Barrier
  - ☉ Pavement
  - ☉ Pavement Marking
  - ☉ Traffic Control Devices
- ☉ Fourteen types of deficiencies



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## MCR Process

- ☉ Random Survey
  - ☉ 15% system every 6 months
  - ☉ Each county
  - ☉ Vehicle speed 15-20 mph
- ☉ Visual Inspection
  - ☉ Location
  - ☉ Type deficiency
  - ☉ Photograph



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## Research

- ☉ Snow & Ice
  - ☉ Liquid Deicers
  - ☉ Salt Neutralizers
  - ☉ GPS/AVL
  - ☉ Winter Pothole Patching Methods
- ☉ Other
  - ☉ Renewable Energy Alternatives
  - ☉ Vegetation Management Practices



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## Emergency Assistance

- Local agency requests assistance through county EMA
- Request is transmitted to state EMA to prioritize
- Governor's emergency declaration allows ODOT to work on local system



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## OHGO



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## TIMS



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## Questions?



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