

# West Michigan Transportation Operations Center

Serving Motorists on West Michigan Freeways

[www.michigan.gov/its](http://www.michigan.gov/its)

[www.michigan.gov/drive](http://www.michigan.gov/drive)

December 2011



**Suzette Peplinski, P.E.**  
1420 Front Avenue NW  
Grand Rapids, MI 49504  
PeplinskiS@michigan.gov

**West Michigan TOC Control Room**  
E-mail: [MDOT-GR-TRAFFOPS@michigan.gov](mailto:MDOT-GR-TRAFFOPS@michigan.gov)  
Phone: 616-451-8329  
Fax: 616-774-9101

## In the Spotlight

The December weather patterns for the Grand Rapids area were unusual for the time of year.

According to the National Weather Service, the mean temperature for December was 35 degrees, 6 degrees warmer than normal, and the total snowfall was 4.5 inches, 17.5 inches less than normal.

The WMTOC documented 26 percent less incidents during the month than during December 2010, due in part to the uncharacteristic weather.

Despite the reduced number of incidents, a single incident hot spot is noted in this report at the interchange of US-131 and I-196 as a result of six crashes that occurred near the interchange. Four of the crashes occurred on interchange ramps, resulting in two complete ramp closures. Three of the ramp crashes occurred during the afternoon peak period during rainy weather or wet pavement conditions. One ramp crash resulted in a car fire and occurred on the westbound I-196 ramp to southbound US-131 around 5:00 p.m., causing traffic backups that extended to the interchange of I-196 and I-96, approximately 4 miles to the east. In all cases Dynamic Message Signs (DMS) were used to inform motorists of the traffic impacts.

November marked the end of the 2011 construction season in Grand Rapids and, as a result, the amount of e-mail communication in December was reduced by 50 percent compared to November. E-mail communications from the city of Grand Rapids, MDOT construction personnel, and Listserv Traffic Notifications experienced the greatest changes.

Compiled by:  
**URS**

# WMTOC Control Room

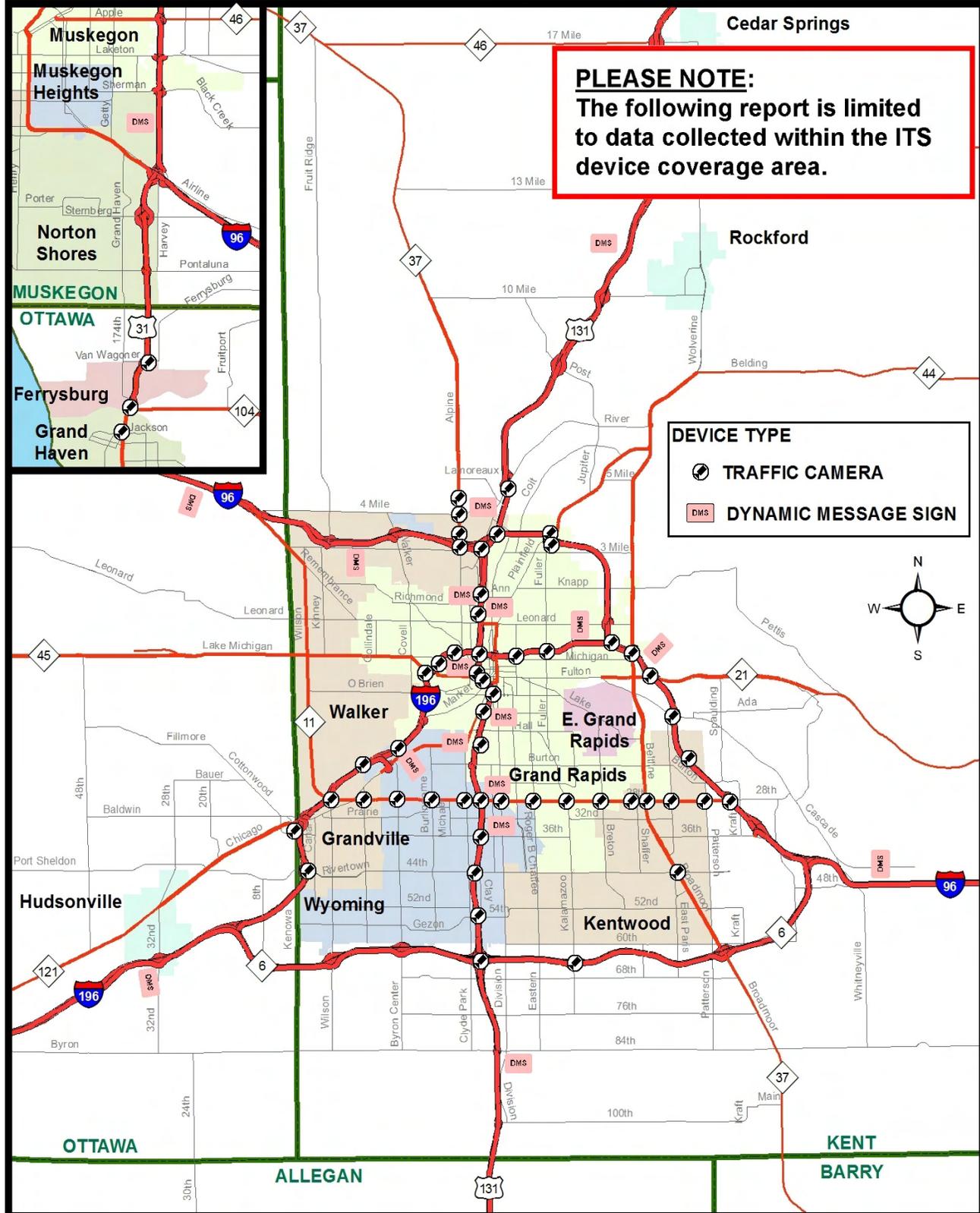
## Hours of Operation

Days	Hours
Monday – Thursday	6 a.m. – 8 p.m.
Friday	6 a.m. – 9 p.m.
Saturday – Sunday	Noon – 8 p.m.
Special Events and Holidays	As needed

## Contact Information

E-mail: MDOT-GR-TRAFFOPS@michigan.gov  
 Phone: 616-451-8329  
 Fax: 616-774-9101

## ITS Device Locations and Coverage Area



# Summary

## Data Key

## December 2011

### WMTOC Communications Activity



Operators log all incoming and outgoing control room communications, engaging various incident responders and stakeholders.

### Total Communication

**Calls: 246**  
**E-mails: 119**

### Quality Assurance/Quality Control



Quality assurance and quality control audit of format and content for incident notification communication and media traffic reporting.

### Incident Notification

**Format Correct 100.0%**  
**Content Correct 100.0%**

### Unplanned Incidents



Operators log information about each unplanned incident including date/time, location, traffic impact, duration, and associated traveler information.

### Total Incidents

**89**

### Construction Activity



Operators maintain a list of ongoing construction projects and contacts for these projects. This activity also includes maintenance operations.

### Incidents Occurring in Work Zones

**0**

### Daily Shift Report



Operators track maintenance issues for all Intelligent Transportation Systems (ITS) equipment, including Closed-circuit Television (CCTV) cameras, Microwave Vehicle Detector Systems (MVDS), Dynamic Message Signs (DMS), and Variable Speed Signs (VSS).

### System Availability

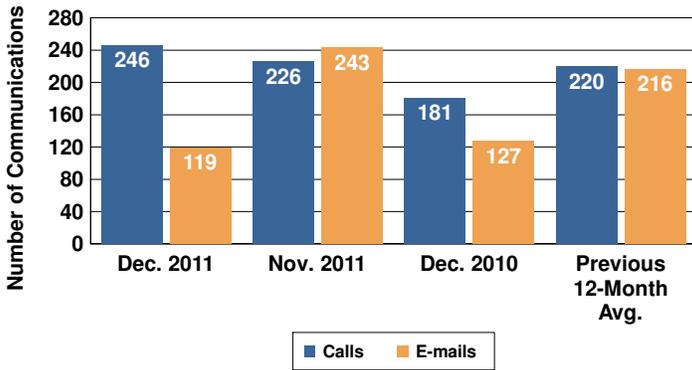
**CCTV: 91%**  
**MVDS: 74%**  
**DMS: 100%**  
**VSS: 100%**

## Calls and E-mails by Type

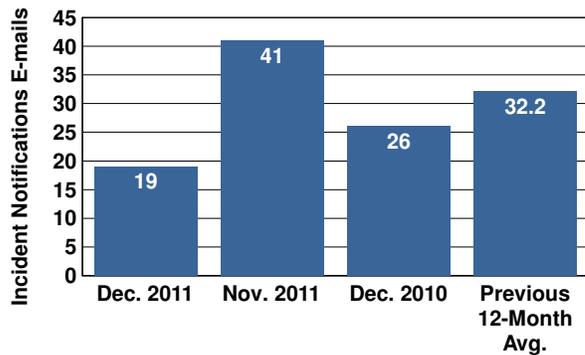


Agency	Calls			E-mails		
	In	Out	Total	In	Out	Total
City of Grand Rapids	0	0	0	13	0	13
Grand Rapids Police Department	5	70	75	0	0	0
ITS System Maintenance	9	6	15	3	0	3
Kent County Road Commission	1	4	5	0	0	0
Kent County Sheriff	0	0	0	0	0	0
Listserv (Traffic Notifications)	0	0	0	11	19	30
MDOT, Construction	7	0	7	5	0	5
MDOT, Maintenance	3	6	9	0	0	0
MDOT, Other	0	0	0	7	0	7
MDOT, Traffic/ITS	4	4	8	6	1	7
Media	8	2	10	4	1	5
Michigan State Police	2	15	17	0	0	0
Other	53	5	58	22	3	25
URS Corporation	28	14	42	8	1	9
Weather	0	0	0	15	0	15
<b>Month Total</b>	<b>120</b>	<b>126</b>	<b>246</b>	<b>94</b>	<b>25</b>	<b>119</b>

## Communication History



## Incident Notification\* History



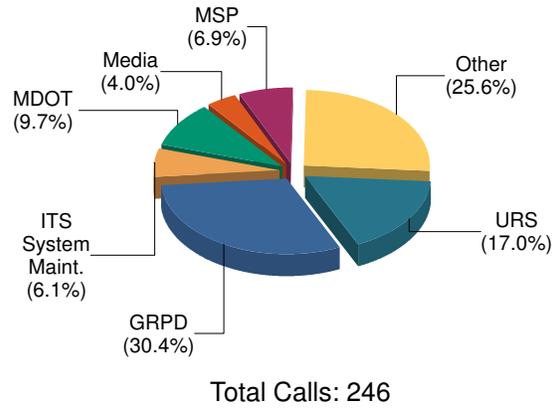
## Incident Notification\* Communication Accuracy



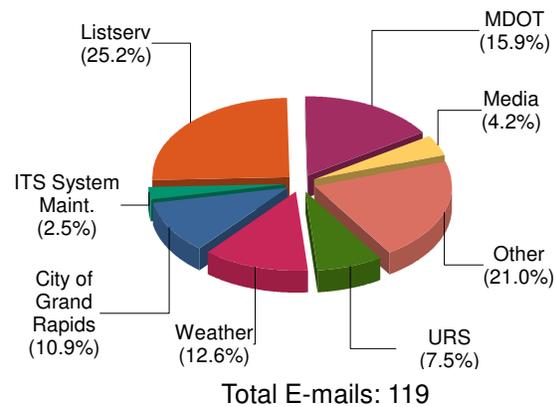
	Dec. 2011	Nov. 2011	Dec. 2010	Previous 12 Months
Format Correct	100.0%	100.0%	100.0%	98.2%
Content Correct	100.0%	97.6%	96.2%	96.4%

\* Incident Notification e-mails are issued for high-impact incidents with an expected duration of 15 minutes or greater. To subscribe to this list, please visit the MDOT listserv by following this link.

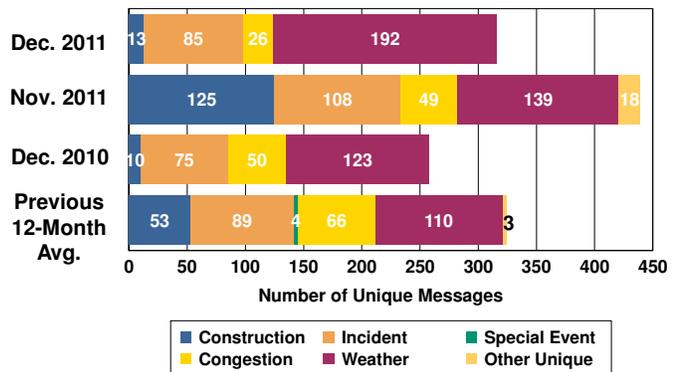
## Calls by Type



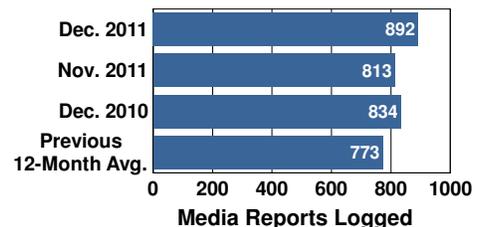
## E-mails by Type



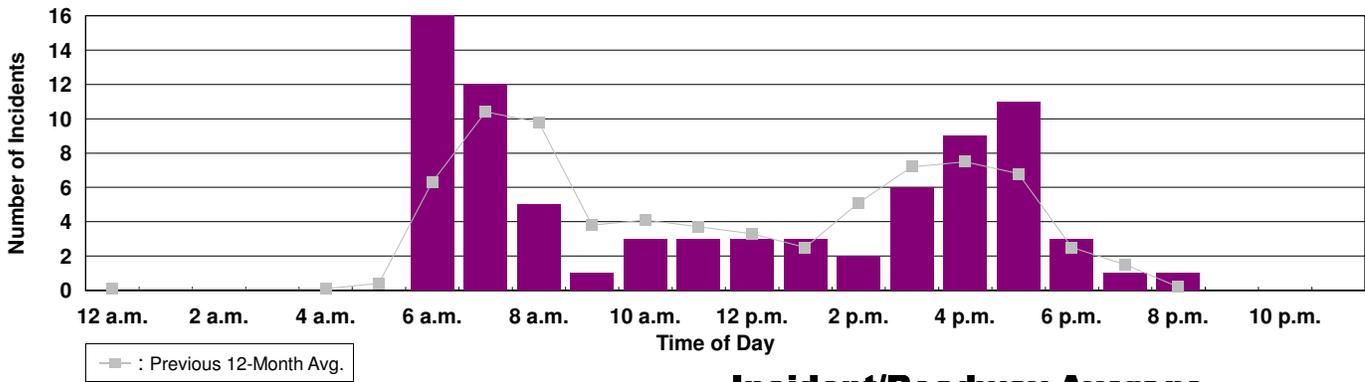
## DMS and VSS Messages by Type



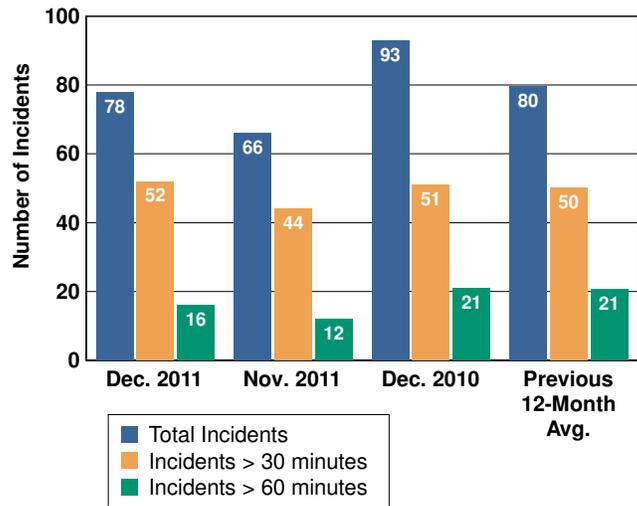
## Media Audits



# Total of Unplanned Incidents per Weekday Hour

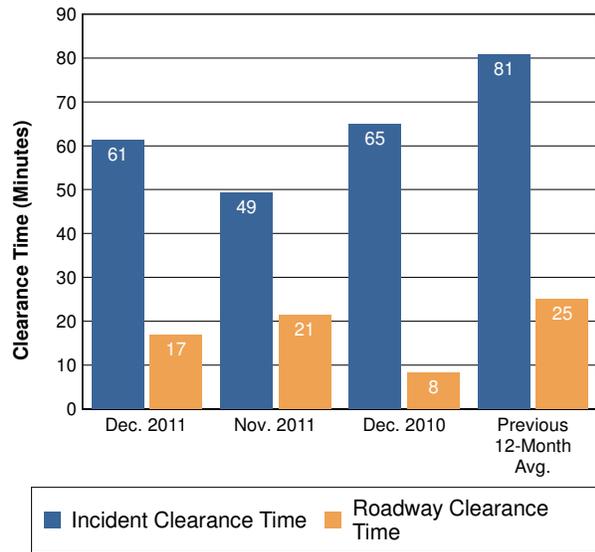


## Incident Clearance Details\*

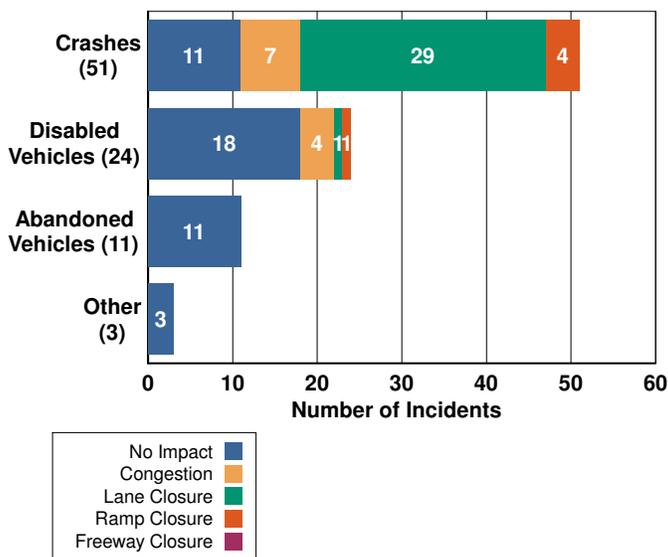


\*Incident Clearance Details excludes abandoned vehicles.

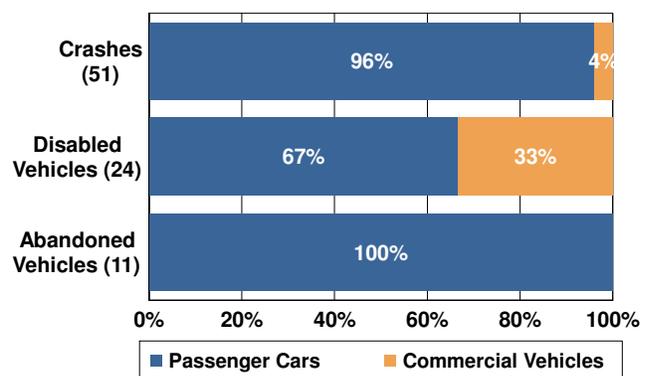
## Incident/Roadway Average Clearance Times



## Traffic Impacts by Type\*



## Vehicle Composition of Incidents\*



\*Vehicle Composition of Incidents excludes incidents where vehicle types were not identified.

## Secondary Crashes

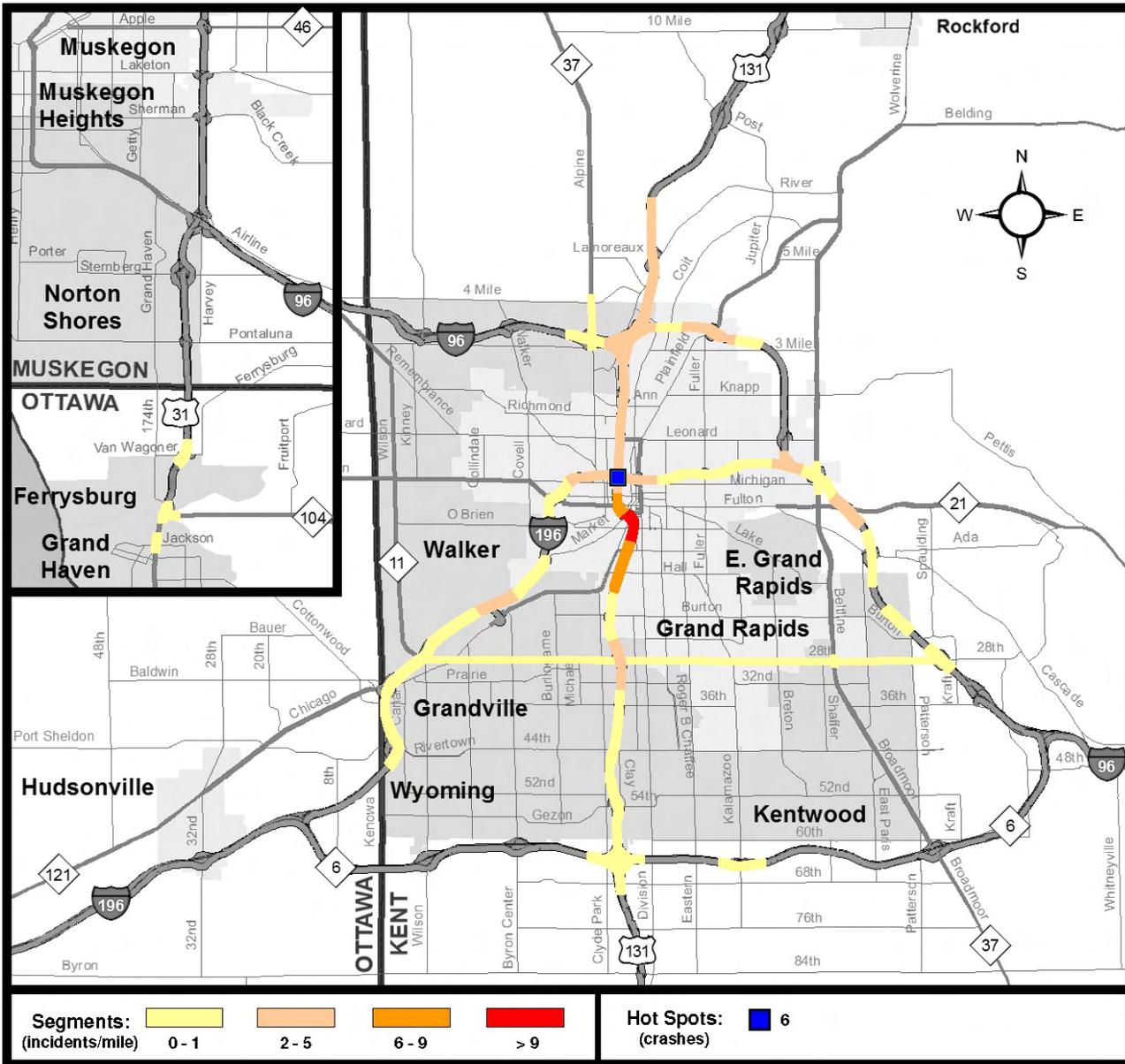


Month	Secondary Crashes	Total Crashes
December 2011	2 (4%)	51

[Note: MDOT Fiscal Year 2011 (Oct. 2010 to Sept. 2011) data is not directly comparable with current data]



# Incident Density and Hot Spots Map



Incident Management



## High-impact Unplanned Incident Activity\*



Incident Impact	Dec. 2011	Nov. 2011	Dec. 2010	Previous 12-Month Avg.
Lane Closure	30	37	22	34.6
Ramp Closure	5	2	3	3.8
Freeway Closure	-	-	2	1.8

\*High-impact Unplanned Incident Activity includes unplanned incidents resulting in closures.

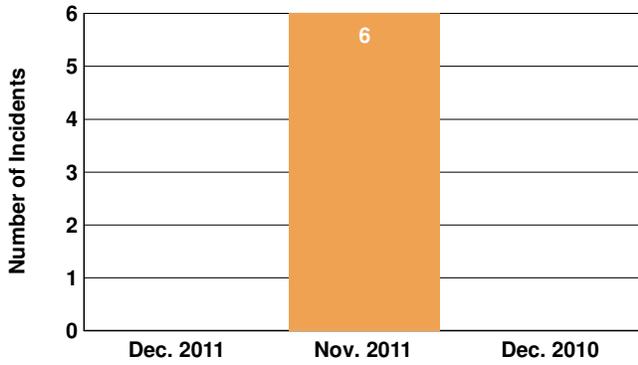
## Unplanned Incidents by Roadway within Coverage Area



Freeway/Arterial	Dec. 2011		Nov. 2011		Dec. 2010		Previous 12-Month Avg.	
	Total	per mi.	Total	per mi.	Total	per mi.	Total	per mi.
I-96 (10.6 mi.)	14	1.3	7	0.7	11	1.0	9.4	0.9
I-196 (12.1 mi.)	16	1.3	12	1.0	37	3.1	20.4	1.7
US-131 (15.2 mi.)	47	3.1	45	3.0	70	4.6	51.8	3.4
US-31 (1.7 mi.)	-	-	-	-	-	-	-	-
M-6 (4 mi.)	-	-	-	-	-	-	-	-
M-11 (11.5 mi.)	-	-	-	-	-	-	0.2	-
<b>Month Total</b>	<b>77</b>	<b>1.4</b>	<b>64</b>	<b>1.2</b>	<b>118</b>	<b>2.1</b>	<b>81.8</b>	<b>1.5</b>

[Note: MDOT Fiscal Year 2011 (Oct. 2010 to Sept. 2011) data is not directly comparable with current data]

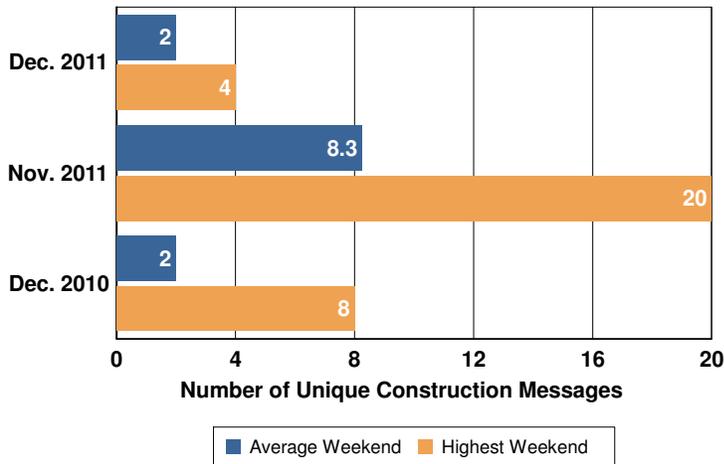
## Incidents Occurring in Work Zones



### Work Zone Incident Details:

During the month of December, no incidents were identified by operators as being within work zones.

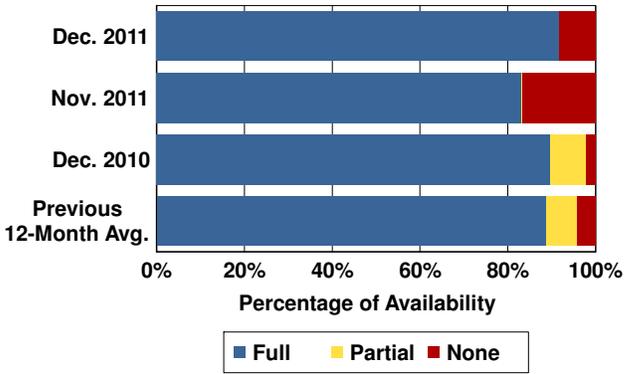
## Weekend\* Construction DMS Message Activity



\* Friday, Saturday and Sunday.



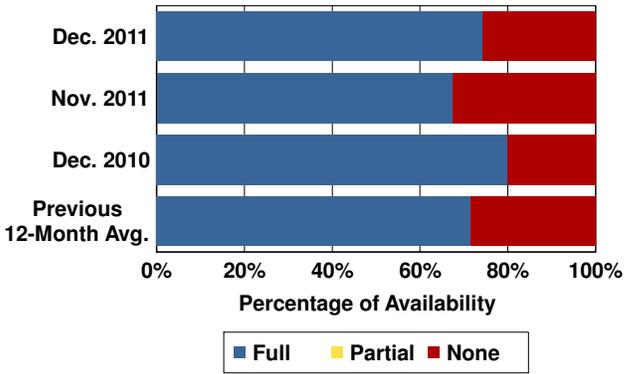
## Overall CCTV Camera Availability



## Individual CCTV Camera Availability

CCTV Cameras Below 95% Availability			
Location	Full	Partial	None
1. I-96 @ E. Beltline Ave.	-	-	100%
2. I-96 Conn. to US-131	71%	-	29%
3. I-96 WB @ Plainfield Ave.	71%	-	29%
4. I-96 EB @ Plainfield Ave.	71%	-	29%
5. US-131 @ Wealthy St.	71%	-	29%

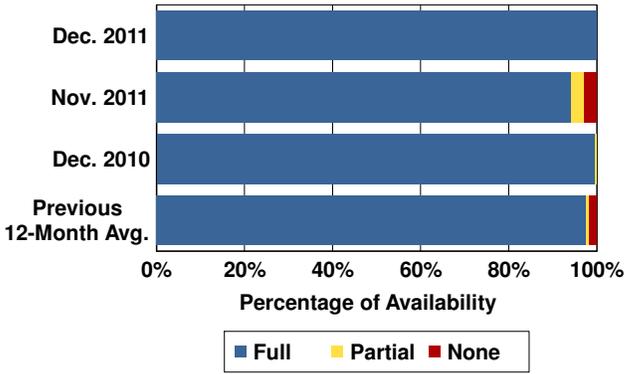
## Overall Detector Availability



## Individual Detector Availability

Vehicle Detectors Below 95% Availability			
Location	Full	Partial	None
1. 114N - I-196 WB @ Monroe	-	-	100%
2. 114S - I-196 EB @ Ottawa	-	-	100%
3. 125 - I-96 EB @ E. Beltline	-	-	100%
4. 201 - US-131 NB S of 36th	-	-	100%
5. 204 - US-131 NB S of 28th	-	-	100%
6. 226 - US-131 SB @ I-96 WB	-	-	100%
7. 227 - US-131 NB @ I-96 WB	-	-	100%
8. 122 - I-196 @ Maryland	13%	-	87%
9. 127 - I-96 E of E. Beltline	13%	-	87%
10. 229 - US-131 @ I-96	31%	-	69%
11. 102 - I-196 @ Market	47%	-	53%

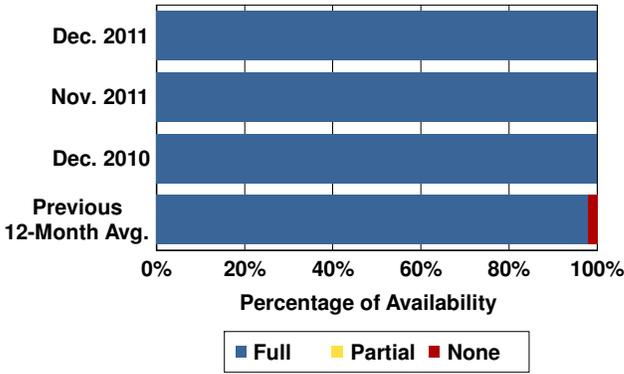
## Overall DMS Availability



## Individual DMS Availability

DMS Below 95% Availability			
Location	Full	Partial	None
None.			

## Overall VSS Availability



## Individual VSS Availability

VSS Below 95% Availability			
Location	Full	Partial	None
None.			

Equipment Maintenance

