

West Michigan Transportation Operations Center

Serving Motorists Across West Michigan

www.michigan.gov/its

www.michigan.gov/drive

September 2012



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
Phone: 616-451-8329
Fax: 616-774-9101

In the Spotlight



Dynamic message signs (DMS) are the Intelligent Transportation System (ITS) devices that are the most visible to motorists. DMS are used to provide information to motorists regarding congestion, crashes, travel times, construction, special events, AMBER Alerts and Clean Air Action days. There were 11 DMS in the MDOT Grand Region in 2009 and, over the last two years, the number has increased to 24 DMS.

By the end of October, two additional DMS will be installed and operational on M-6, between US-131 and I-96. The signs are unique in that they are mounted back-to-back on the same support structure. The eastbound DMS will be able to provide travel condition information for eastbound M-6, M-37 (Broadmoor Avenue) north and south of M-6, and I-96 east and west of M-6. The westbound DMS will be able to provide information related to travel conditions on westbound M-6 and US-131, north and south of M-6.

When the DMS become operational, they will provide traveler information to approximately 46,000 motorists who drive past the site every day on eastbound and westbound M-6. The information will allow motorists to make informed routing decisions as they travel on freeways and trunklines in the west Michigan area.

WMTOC Control Room

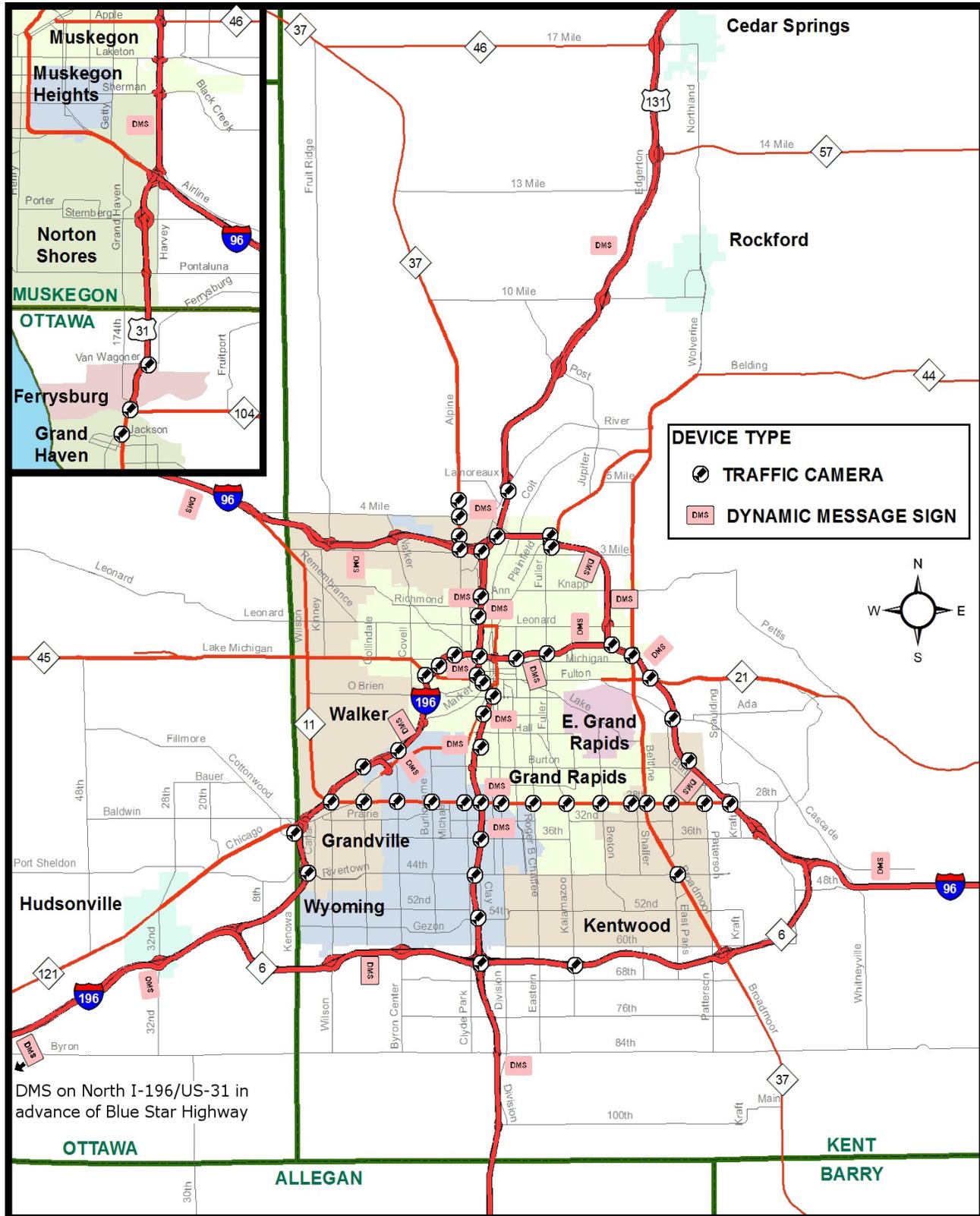
Hours of Operation

| 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

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 Phone: 616-451-8329
 Fax: 616-774-9101

ITS Device Locations and Coverage Area



Summary

Data Key

September 2012

WMTOC Communications Activity



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

Total Communication

Calls: 299
E-mails: 234

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 96.2%
Content Correct 92.3%

Unplanned Incidents



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

Total Incidents

81

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

13

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: 96%
MVDS: 76%
DMS: 87%
VSS: 100%

PLEASE NOTE:

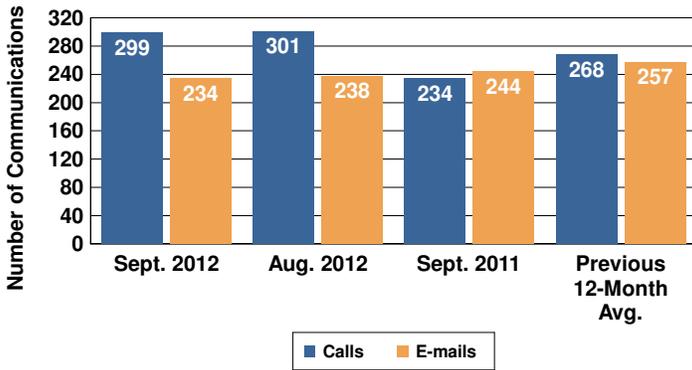
The following report is limited to data collected within the ITS device coverage area as seen on previous page.

Calls and E-mails by Type

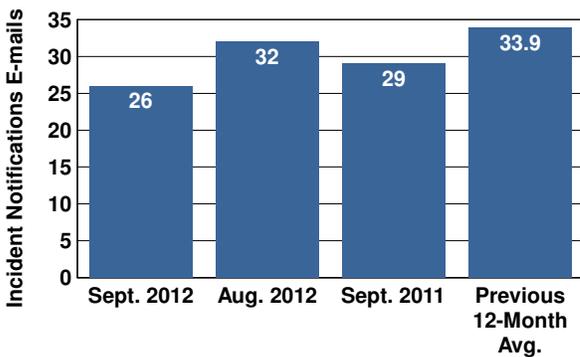


| Agency | Calls | | | E-mails | | |
|----------------------------------|-----------|------------|------------|------------|-----------|------------|
| | In | Out | Total | In | Out | Total |
| City of Grand Rapids | 0 | 0 | 0 | 9 | 0 | 9 |
| Grand Rapids Police Department | 3 | 58 | 61 | 0 | 0 | 0 |
| ITS System Maintenance | 7 | 15 | 22 | 22 | 0 | 22 |
| Kent County Road Commission | 5 | 13 | 18 | 0 | 0 | 0 |
| Kent County Sheriff | 1 | 2 | 3 | 0 | 0 | 0 |
| Listserv (Traffic Notifications) | 0 | 0 | 0 | 81 | 26 | 107 |
| MDOT, Construction | 4 | 6 | 10 | 21 | 0 | 21 |
| MDOT, Maintenance | 5 | 9 | 14 | 0 | 0 | 0 |
| MDOT, Other | 2 | 1 | 3 | 6 | 6 | 12 |
| MDOT, Traffic/ITS | 3 | 60 | 63 | 19 | 5 | 24 |
| Media | 4 | 2 | 6 | 1 | 1 | 2 |
| Michigan State Police | 3 | 17 | 20 | 5 | 0 | 5 |
| Other | 29 | 11 | 40 | 2 | 0 | 2 |
| URS Corporation | 19 | 20 | 39 | 7 | 7 | 14 |
| Weather | 0 | 0 | 0 | 16 | 0 | 16 |
| Month Total | 85 | 214 | 299 | 189 | 45 | 234 |

Communication History



Incident Notification* History



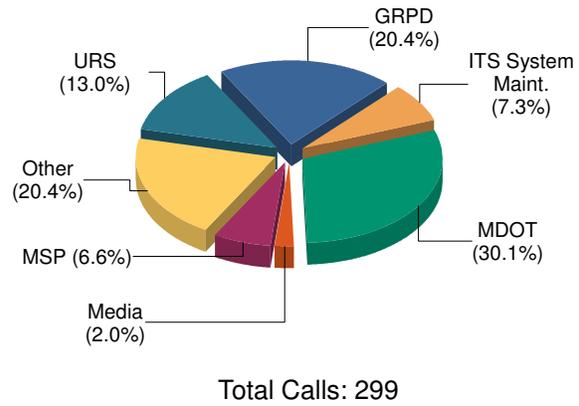
Incident Notification* Communication Accuracy



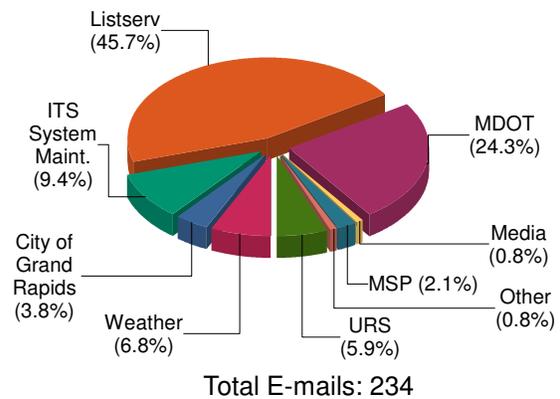
| | Sept. 2012 | Aug. 2012 | Sept. 2011 | Previous 12 Months |
|-----------------|------------|-----------|------------|--------------------|
| Format Correct | 96.2% | 100.0% | 100.0% | 99.3% |
| Content Correct | 92.3% | 96.9% | 100.0% | 96.8% |

* Incident Notification e-mails are issued for high-impact incidents with an expected duration of 15 minutes or longer. To subscribe to this list, please visit the MDOT listserv at: <http://1.usa.gov/qZzuHo>.

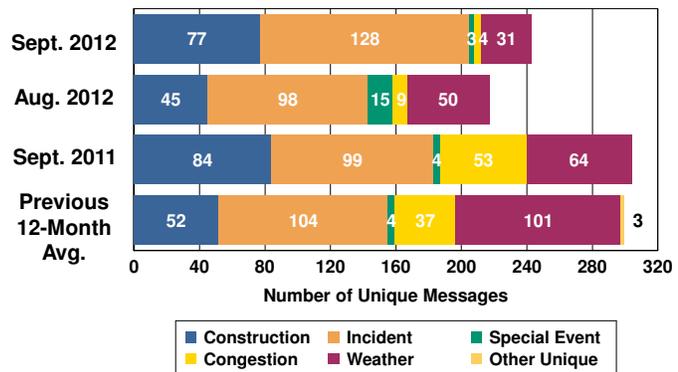
Calls by Type



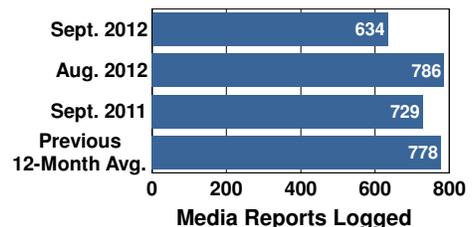
E-mails by Type



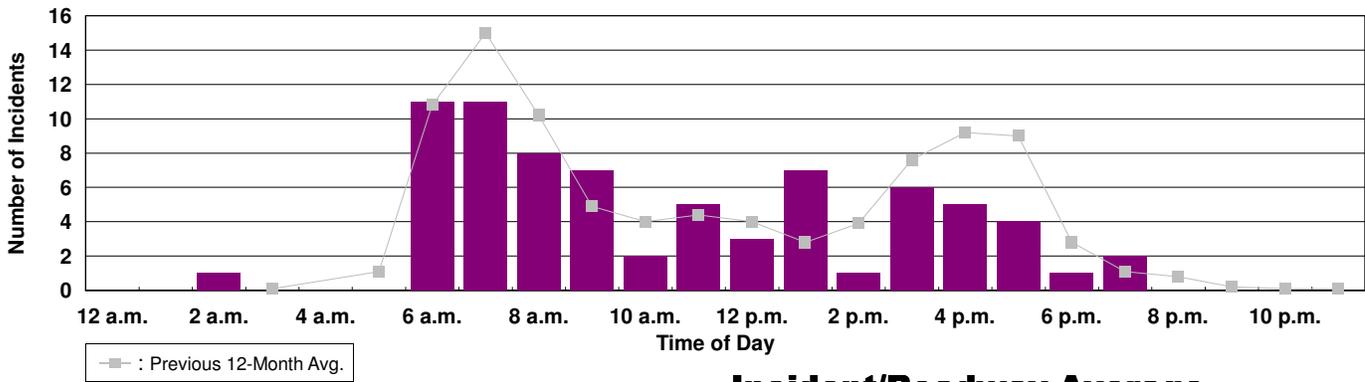
DMS and VSS Messages by Type



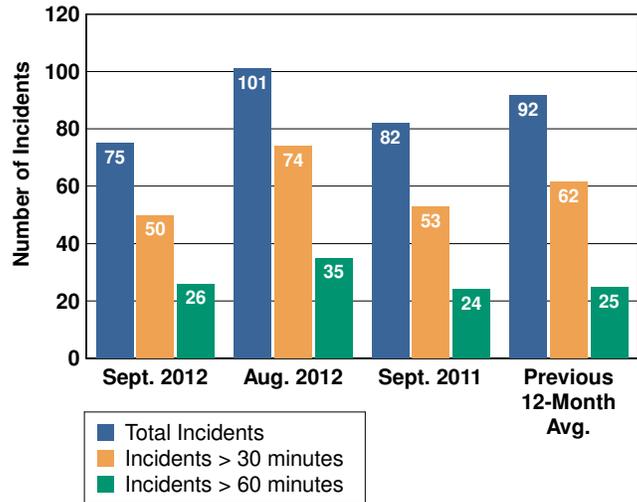
Media Audits



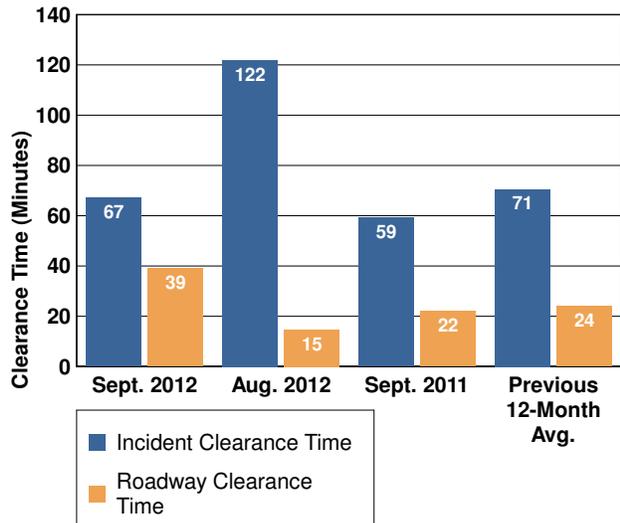
Total of Unplanned Incidents per Weekday Hour



Incident Clearance Details*

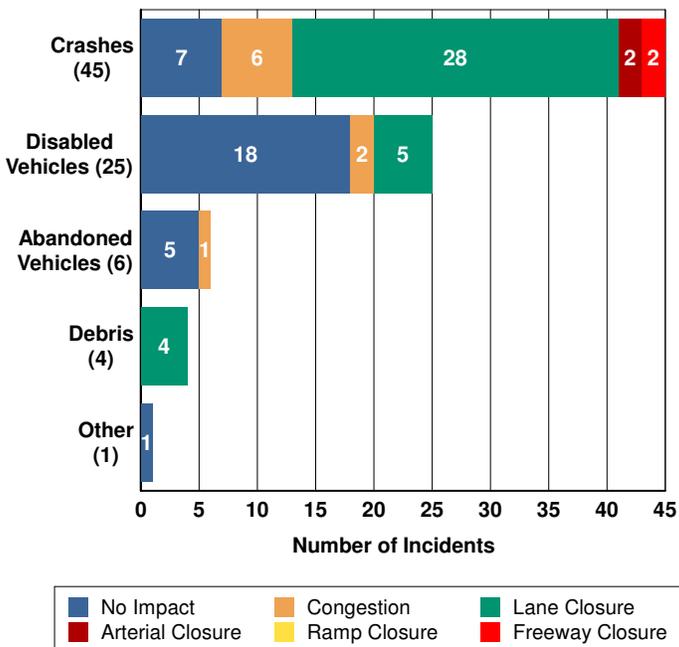


Incident/Roadway Average Clearance Times

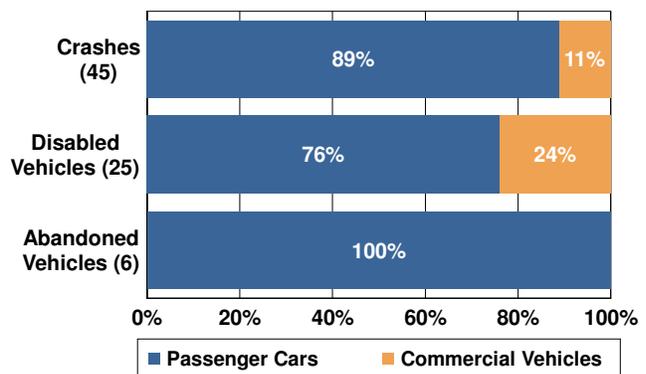


*Incident Clearance Details excludes abandoned vehicles.

Traffic Impacts by Type



Vehicle Composition of Incidents*



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

Secondary Crashes

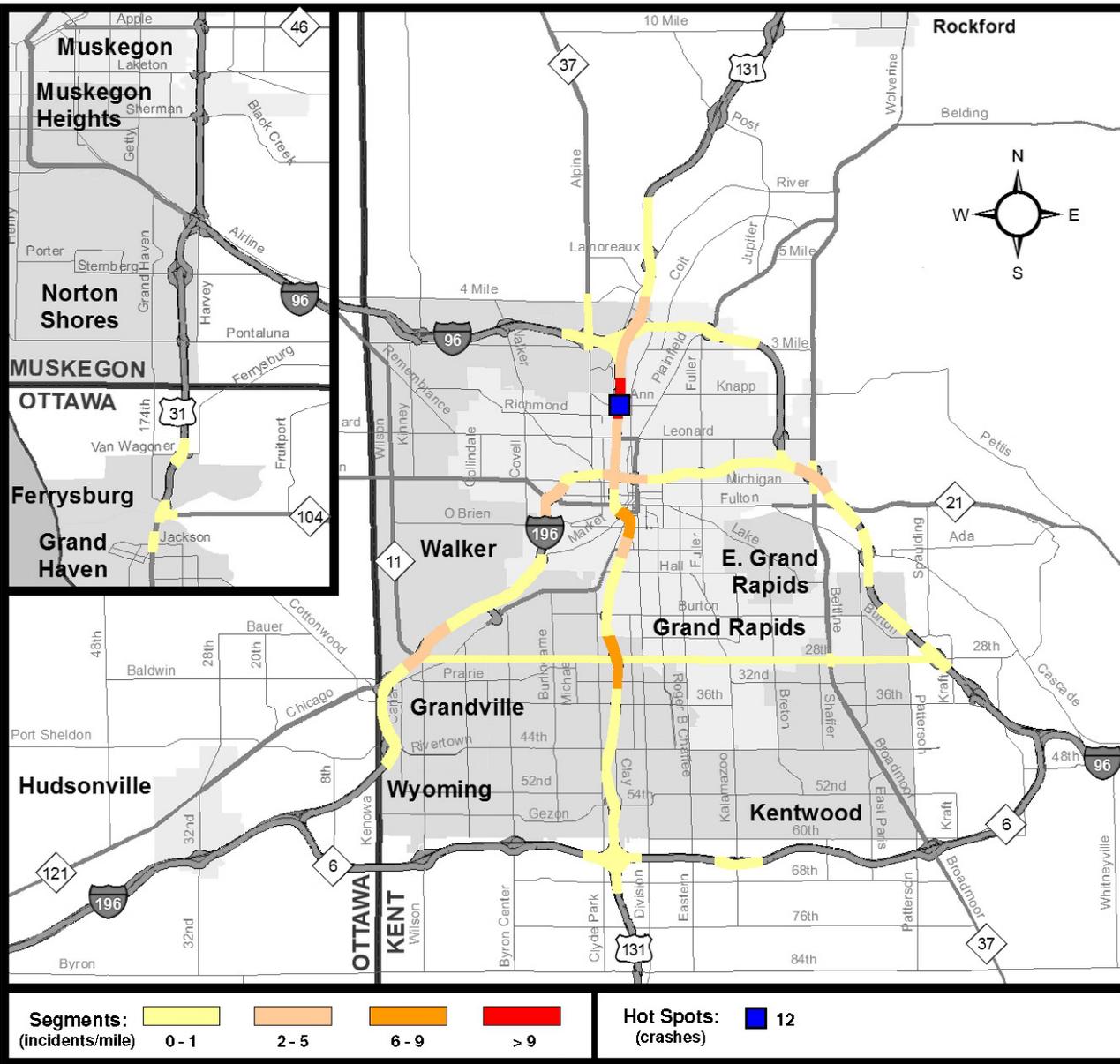


| Month | Secondary Crashes | Total Crashes |
|----------------|-------------------|---------------|
| September 2012 | 2 (4%) | 45 |

Note: Data from Oct. 2010 to Sept. 2011 is not directly comparable with current data due to differences in TOC coverage area.



Incident Density and Hot Spots Map



Incident Management



High-impact Unplanned Incident Activity*



| Incident Impact | Sept. 2012 | Aug. 2012 | Sept. 2011 | Previous 12-Month Avg. |
|-----------------|------------|-----------|------------|------------------------|
| Lane Closure | 37 | 34 | 40 | 38.6 |
| Ramp Closure | - | 2 | 2 | 3 |
| Freeway Closure | 2 | 2 | 4 | 2.6 |

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

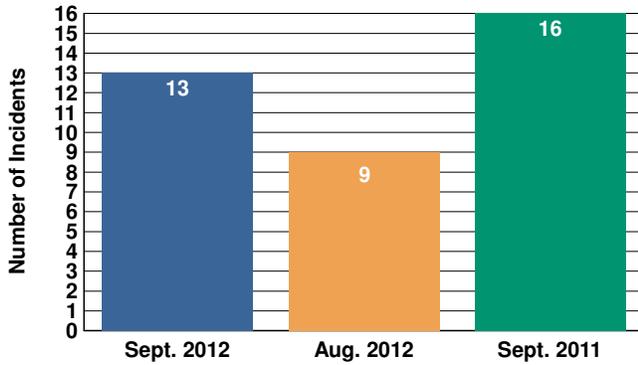
Unplanned Incidents by Roadway within Coverage Area



| Freeway/Arterial | Sept. 2012 | | Aug. 2012 | | Sept. 2011 | | Previous 12-Month Avg. | |
|--------------------|------------|------------|------------|------------|------------|------------|------------------------|------------|
| | Total | per mi. | Total | per mi. | Total | per mi. | Total | per mi. |
| I-96 (10.6 mi.) | 6 | 0.6 | 22 | 2.1 | 7 | 0.7 | 14.6 | 1.4 |
| I-196 (12.1 mi.) | 14 | 1.2 | 22 | 1.8 | 28 | 2.3 | 23.8 | 2.0 |
| US-131 (15.2 mi.) | 49 | 3.2 | 56 | 3.7 | 44 | 2.9 | 53.2 | 3.5 |
| US-31 (1.7 mi.) | 2 | 1.2 | 1 | 0.6 | - | - | 0.8 | 0.5 |
| M-6 (4 mi.) | 1 | 0.2 | 1 | 0.2 | 1 | 0.2 | 1.1 | 0.3 |
| M-11 (11.5 mi.) | 1 | 0.1 | 2 | 0.2 | 1 | 0.1 | 0.7 | 0.1 |
| Month Total | 73 | 1.3 | 104 | 1.9 | 81 | 1.5 | 94.2 | 1.7 |

Note: Data from Oct. 2010 to Sept. 2011 is not directly comparable with current data due to differences in TOC coverage area.

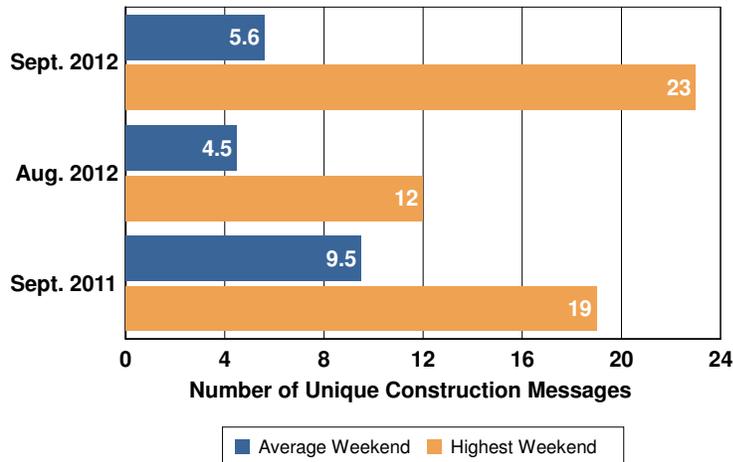
Incidents Occurring in Work Zones



Work Zone Incident Details:

During the month of September, 13 incidents were identified by operators as being within work zones. Nine crashes, two disabled vehicles, and one abandoned vehicle occurred on northbound US-131 within the short-term maintenance work zone for the northbound US-131 ramp to westbound I-96. One crash occurred in a short-term work zone on westbound I-96 at Bristol Avenue.

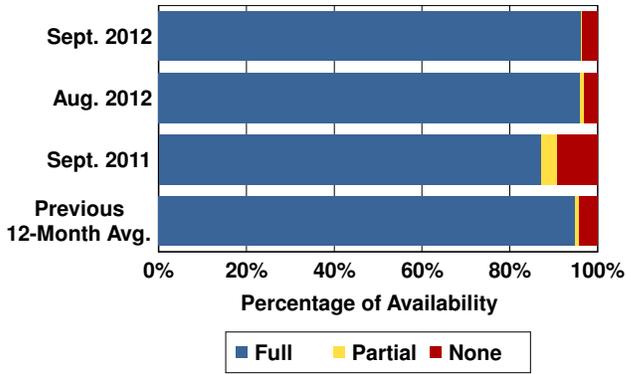
Weekend* Construction DMS Message Activity



* Friday, Saturday and Sunday.



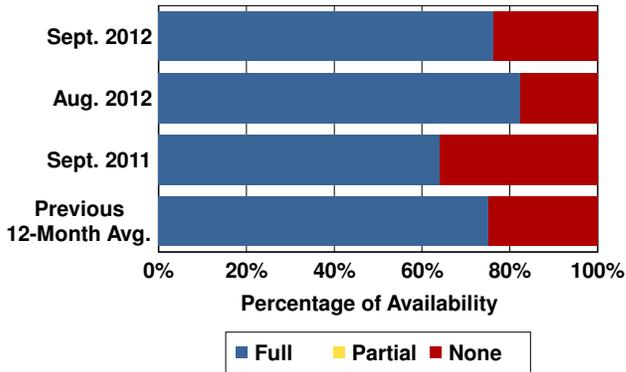
Overall CCTV Camera Availability



Individual CCTV Camera Availability

| CCTV Cameras Below 95% Availability | | | |
|-------------------------------------|------|---------|------|
| Location | Full | Partial | None |
| 1. I-96 @ M-21 (Fulton St.) | - | - | 100% |
| 2. I-96 EB @ Plainfield Ave. | 78% | - | 22% |
| 3. US-131 @ Wealthy St. | 84% | - | 16% |
| 4. I-196 @ M-11 (28th St.) | 87% | 13% | - |

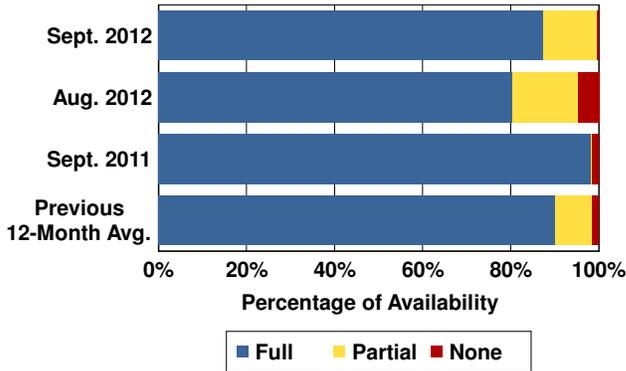
Overall Detector Availability



Individual Detector Availability

| Vehicle Detectors Below 95% Availability | | | |
|--|------|---------|------|
| Location | Full | Partial | None |
| 1. 102 - I-196 @ Market | - | - | 100% |
| 2. 114N - I-196 WB @ Monroe | - | - | 100% |
| 3. 114S - I-196 EB @ Ottawa | - | - | 100% |
| 4. 124 - I-196 EB @ I-96 Merge | - | - | 100% |
| 5. 126 - I-96 W of E. Beltline | - | - | 100% |
| 6. 201 - US-131 NB S of 36th | - | - | 100% |
| 7. 204 - US-131 NB S of 28th | - | - | 100% |
| 8. 227 - US-131 NB @ I-96 WB | - | - | 100% |
| 9. 125 - I-96 EB @ E. Beltline | 11% | - | 89% |
| 10. 113 - I-196 @ US-131 SB | 64% | - | 36% |
| 11. 123 - I-96 WB @ I-196 Split | 64% | - | 36% |

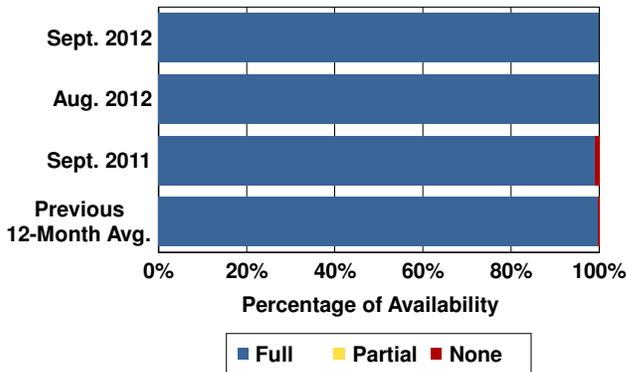
Overall DMS Availability



Individual DMS Availability

| DMS Below 95% Availability | | | |
|---------------------------------|------|---------|------|
| Location | Full | Partial | None |
| 1. US-131 NB @ M-11 (28th St.) | - | 100% | - |
| 2. I-96 EB @ Dean Lake Ave. | - | 100% | - |
| 3. I-196 EB @ Chicago Dr. Conn. | - | 100% | - |
| 4. I-196 WB @ Plymouth Ave. | 68% | 31% | 1% |

Overall VSS Availability



Individual VSS Availability

| VSS Below 95% Availability | | | |
|----------------------------|------|---------|------|
| Location | Full | Partial | None |
| None. | | | |

