2012-2013

MICHIGAN DEPARTMENT OF TRANSPORTATION

Congestion & Mobility Report

Freeway Performance Measures

Chapter 4

METRO REGION SUMMARY

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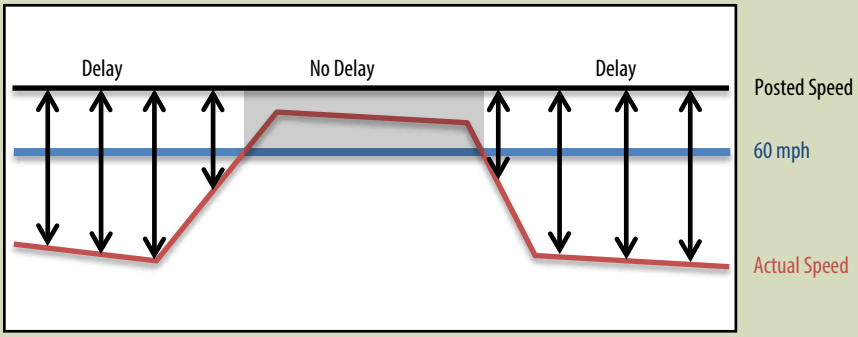
PERFORMANCE MEASURE DEFINITIONS

Total Delay

Delay is calculated by taking the difference between actual speeds when they fall below 60 mph and the posted speed limit for freeways posted at 70 mph. This is to take out the delay caused by the lower average speeds from commercial vehicles.



Total Delay per Mile

Delay per mile is calculated by taking the total delay and dividing it by the length of the freeway. This was performed for each route in each TSC.

Non-Recurring/Recurring Delay

Non-recurring delay is calculated by taking the difference between the actual speed (any time the speed falls below 60 mph) and the average speed. Recurring is measured by taking the difference of the total delay and non-recurring delay.

Congestion

Congestion is calculated as the number of hours below 45 mph per Traffic Message Channel (TMC). A TMC is a standard for delivering real-time traffic information. They vary from tenths of a mile long to several miles long.

Weighted Congestion

Number of congestion hours multiplied by the segment length. Congestion along longer segments will get more consideration than congestion along shorter segments.

User Delay Cost

User Delay Costs (UDC) is calculated by multiplying delay x hourly volume x hourly user cost. Delay is calculated by taking the difference between actual speeds when they fall below 60 mph and the posted speed limit. Hourly volumes are derived from Average Daily Traffic (ADT) and Commercial Average Daily Traffic (CADT). Hourly user costs are based on Federal Highway Administration (FHWA) publication number FHWA-SA-98-079, "Life-Cycle Cost Analysis in Pavement Design."

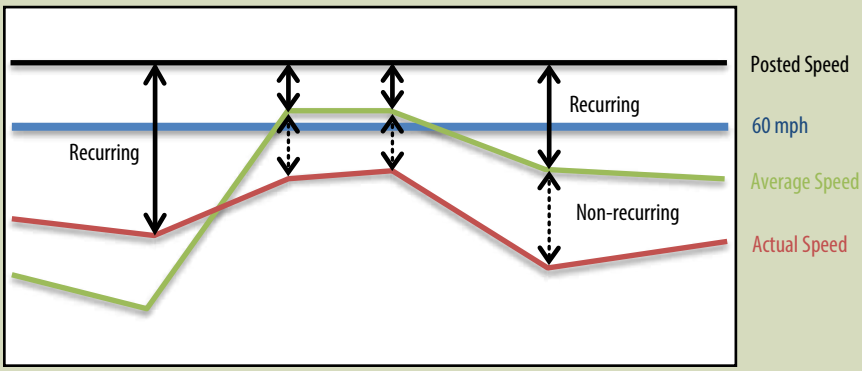


Figure 1

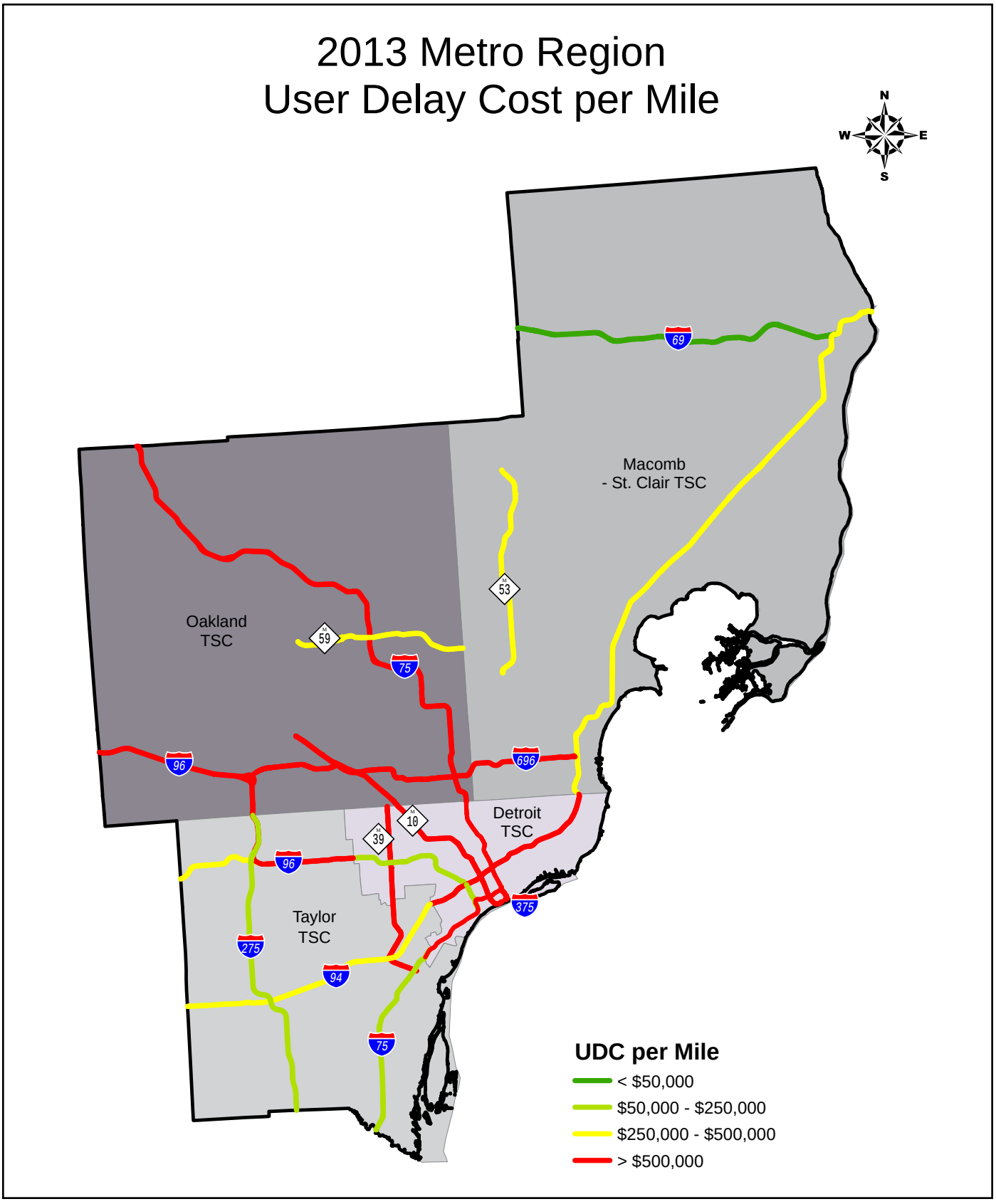

2013 Metro Region
User Delay Cost per Mile
N
W
E
S
Macomb
- St. Clair TSC
Oakland
TSC
Detroit
TSC
Taylor
TSC
69
53
59
75
96
696
10
39
96
375
275
94
75
UDC per Mile
< $50,000
$50,000 - $250,000
$250,000 - $500,000
> $500,000

Figure 2

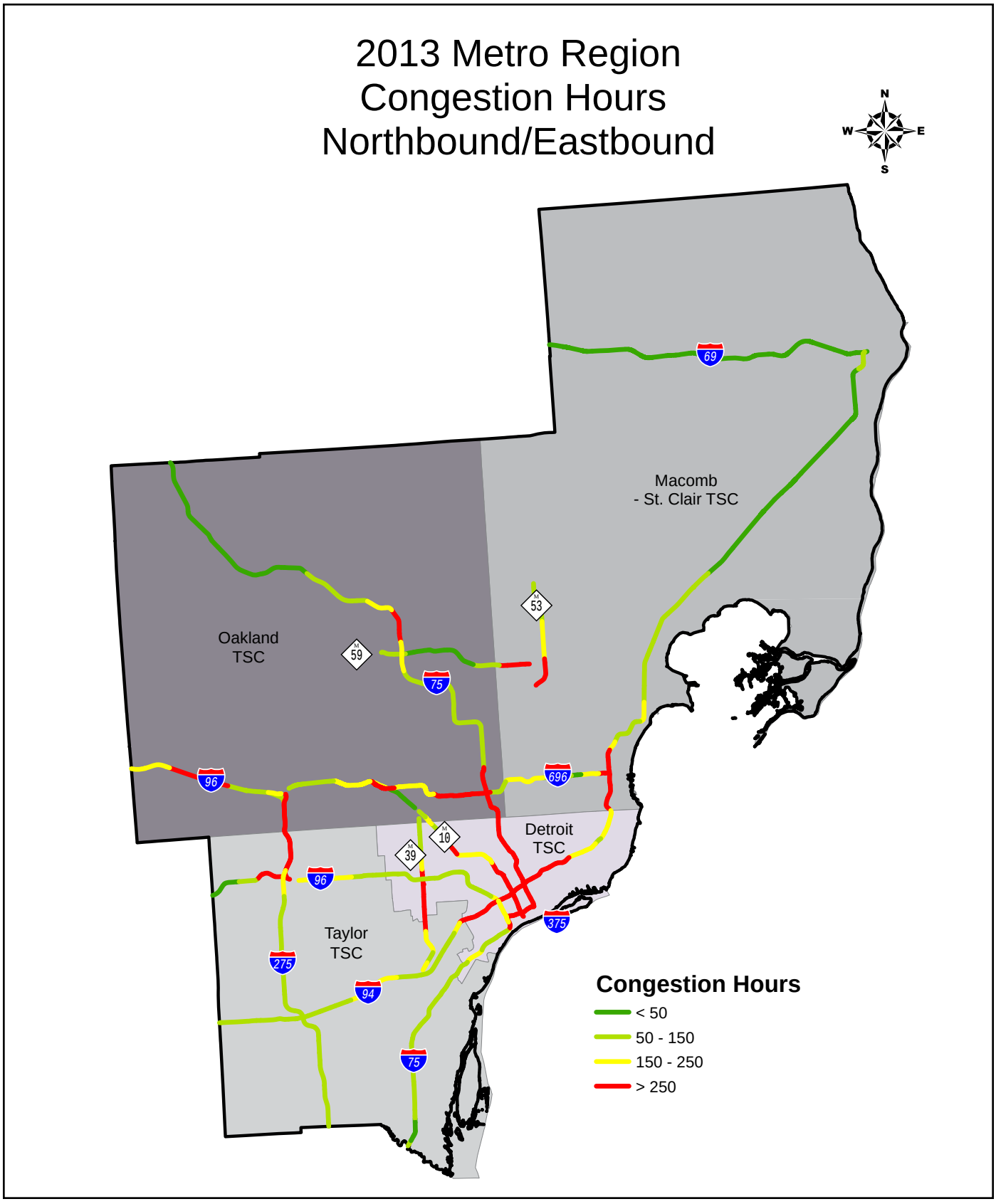

2013 Metro Region
Congestion Hours
Northbound/Eastbound
N
W
E
S
Macomb
- St. Clair TSC
Oakland
TSC
Detroit
TSC
Taylor
TSC
69
53
59
75
96
696
10
39
96
375
275
94
75
Congestion Hours
< 50
50 - 150
150 - 250
> 250

Figure 3

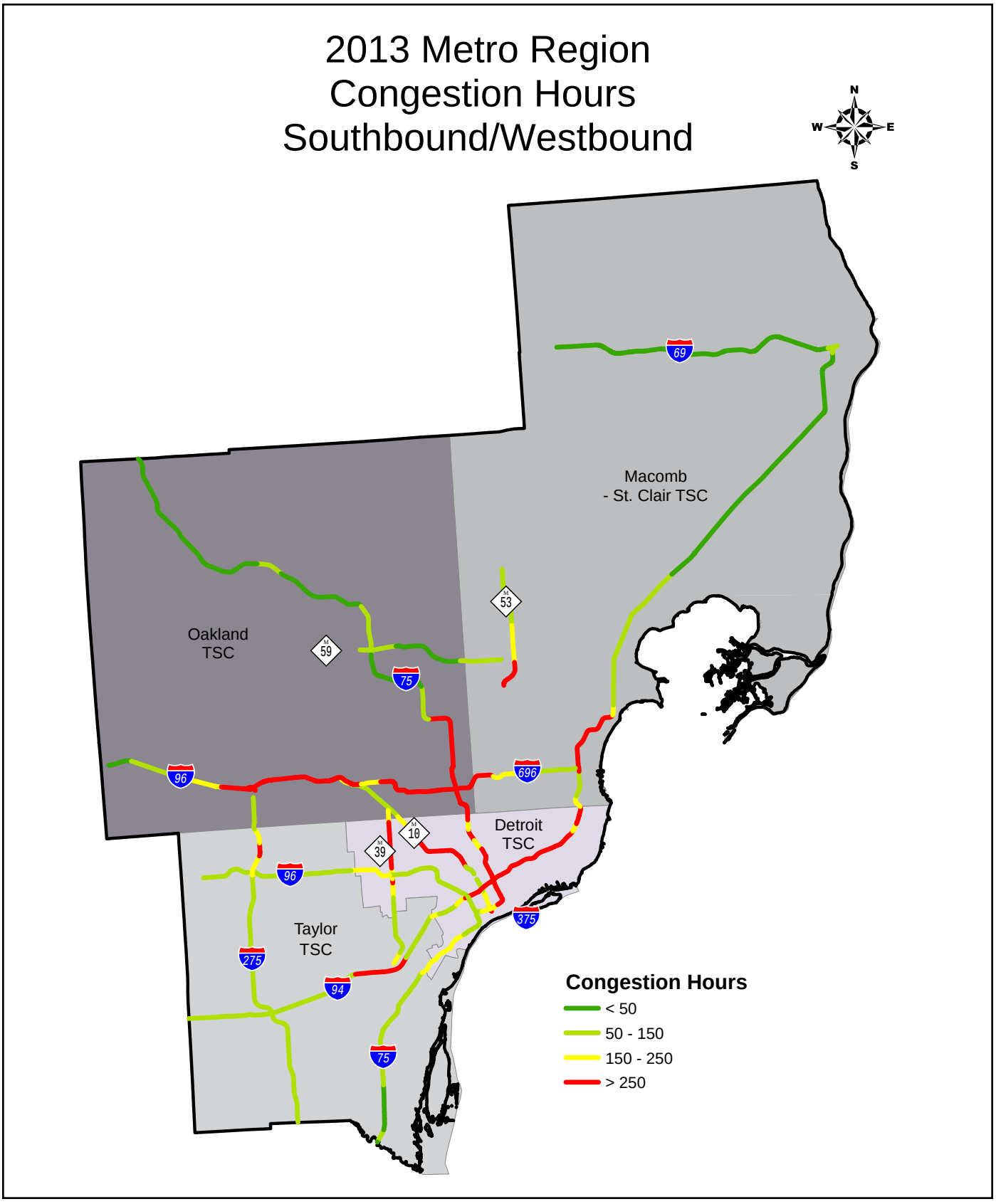

2013 Metro Region
Congestion Hours
Southbound/Westbound
N
W
E
S
Macomb
- St. Clair TSC
Oakland
TSC
Detroit
TSC
Taylor
TSC
69
53
59
75
96
696
10
39
375
275
94
Congestion Hours
< 50
50 - 150
150 - 250
> 250

Figure 4

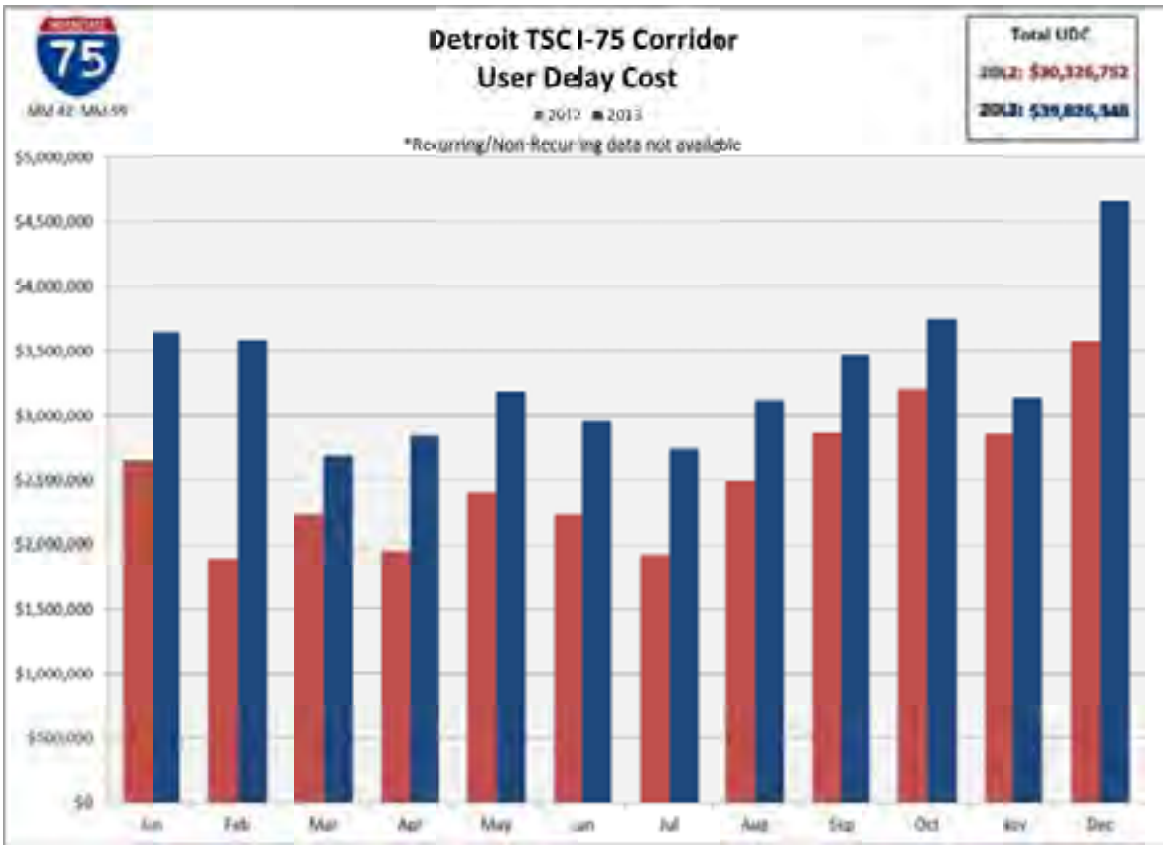
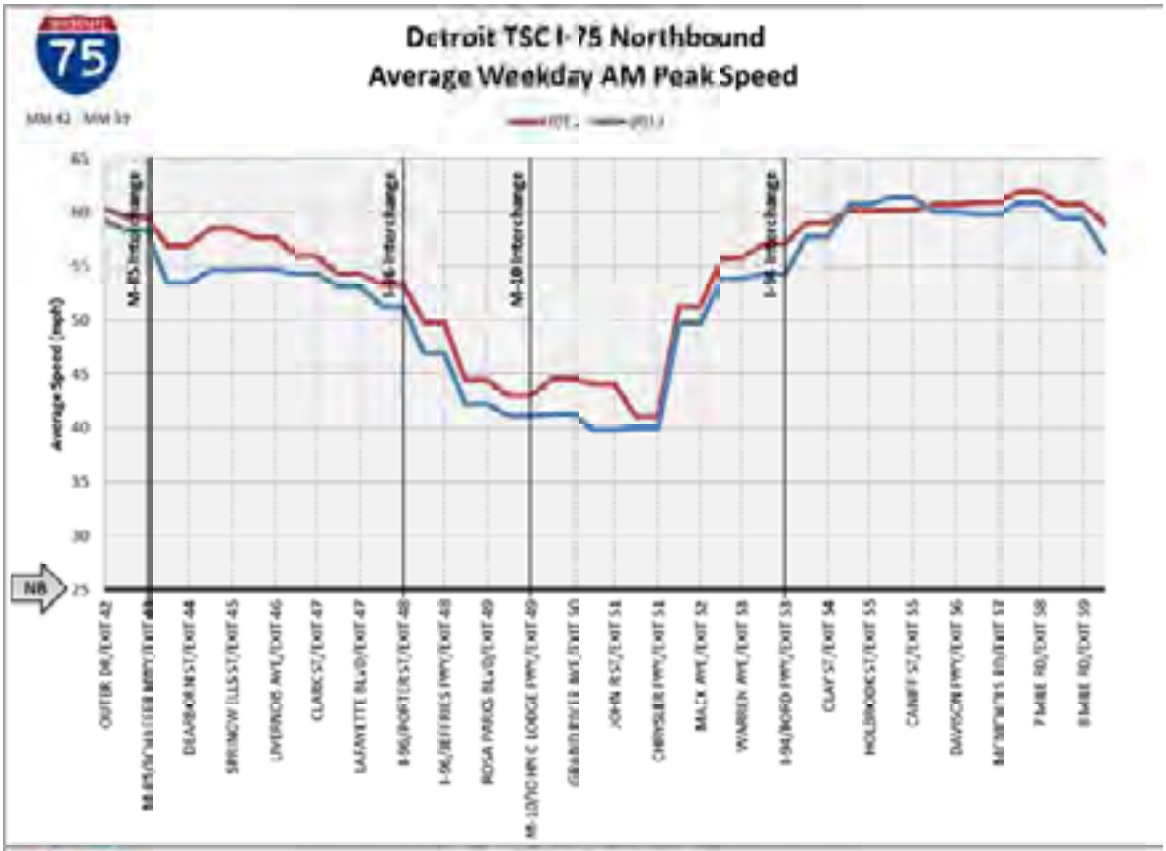

75
Detroit TSC I-75 Corridor
User Delay Cost
2012
2013
*Recurring/Non-Recurring data not available
Total UDC
$5,000,000
$4,500,000
$4,000,000
$3,500,000
$3,000,000
$2,500,000
$2,000,000
$1,500,000
$1,000,000
$500,000
$0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

Figure 5


Detroit TSC I-75 Northbound
Average Weekday AM Peak Speed
Average Speed (mph)
NB
M-85 Interchange
I-96 Interchange
M-10 Interchange
I-94 Interchange

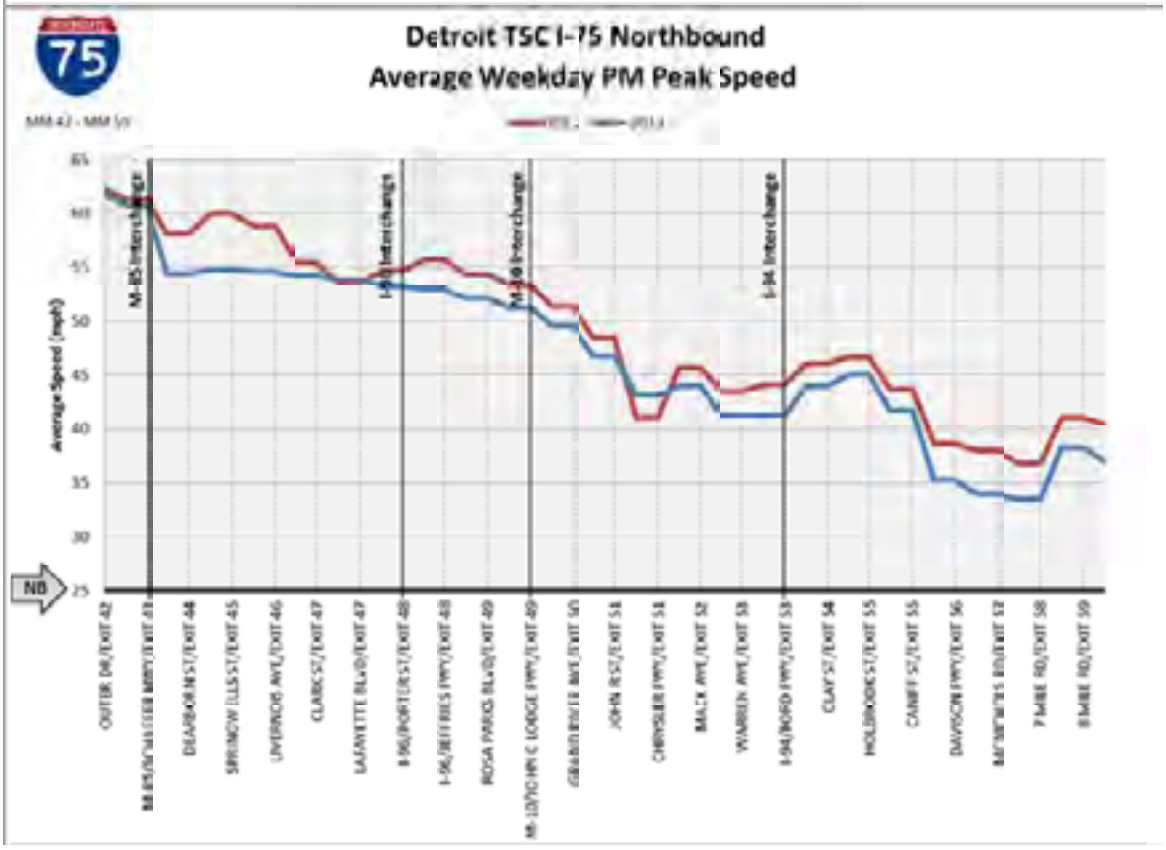
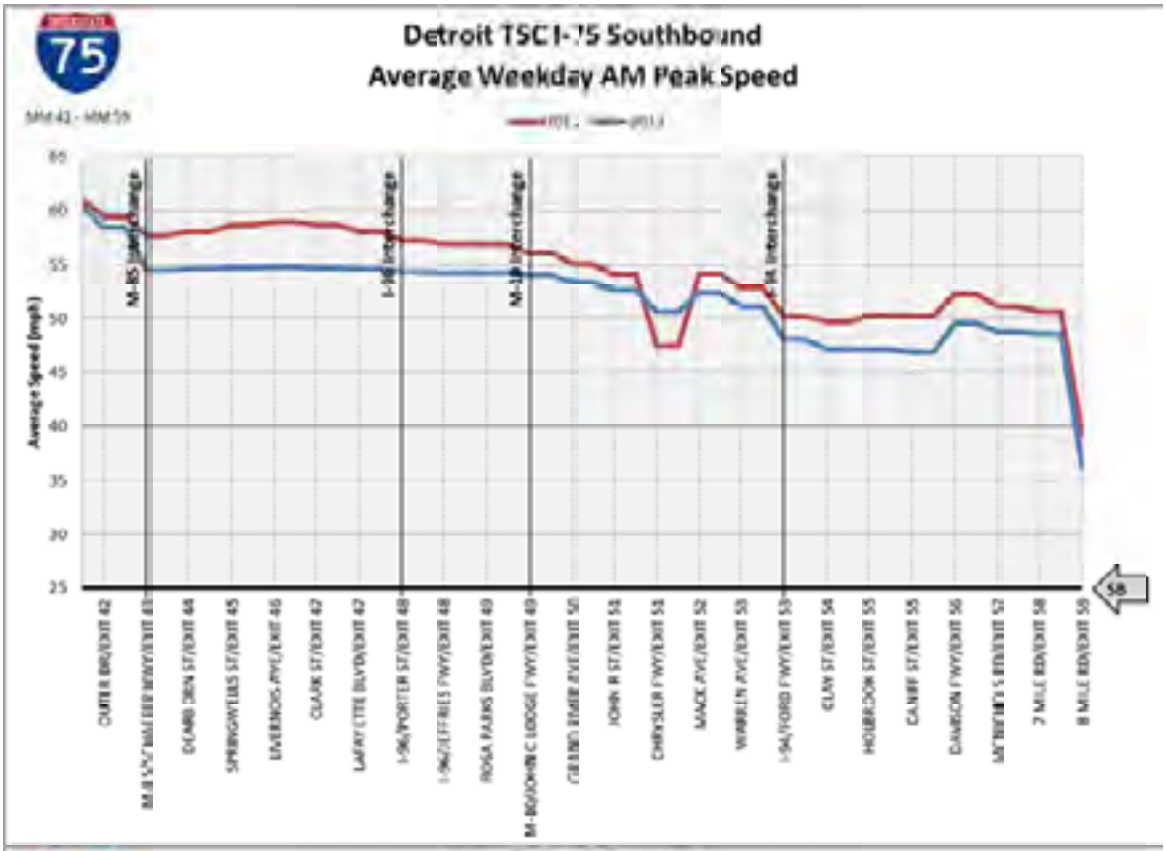

Detroit TSC I-75 Northbound
Average Weekday PM Peak Speed
Average Speed (mph)
NB
M-85 Interchange
I-96 Interchange
M-10 Interchange
I-94 Interchange

Figure 6


75
Detroit TSC I-75 Southbound
Average Weekday AM Peak Speed
Average Speed (mph)
SB

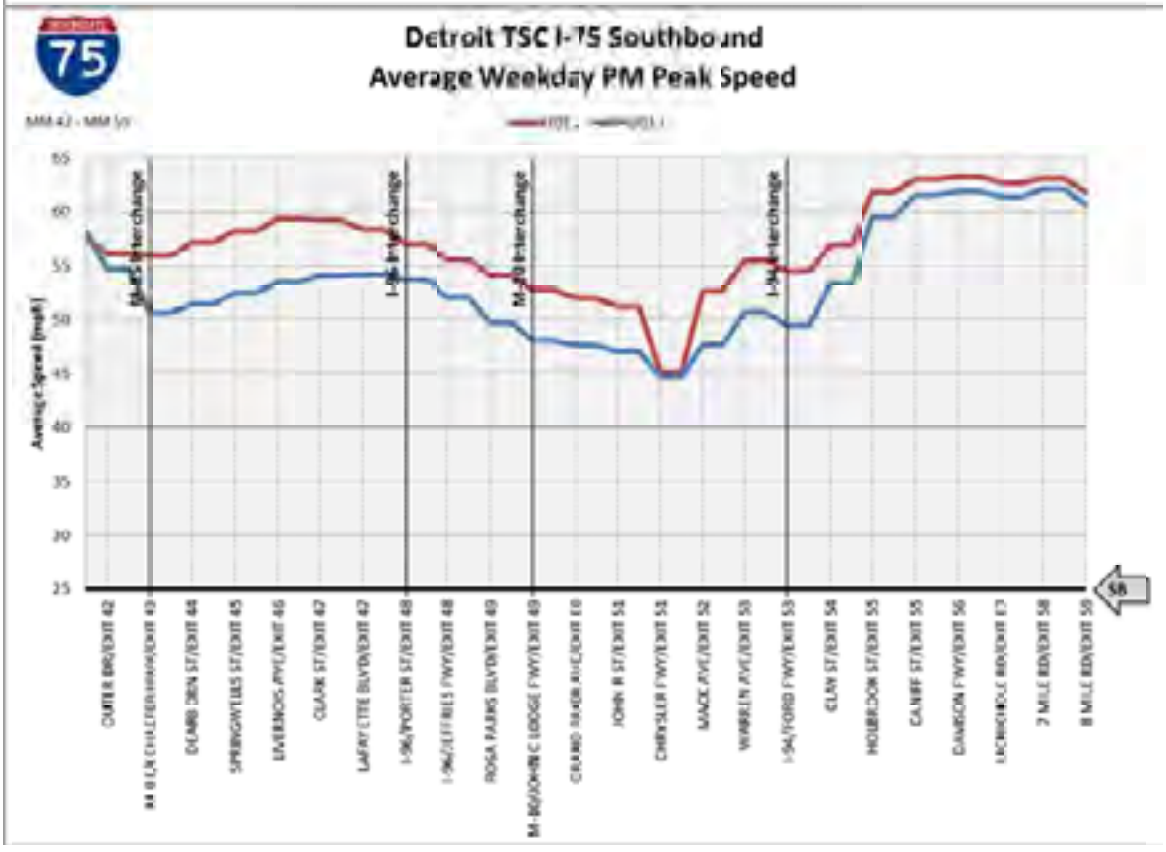
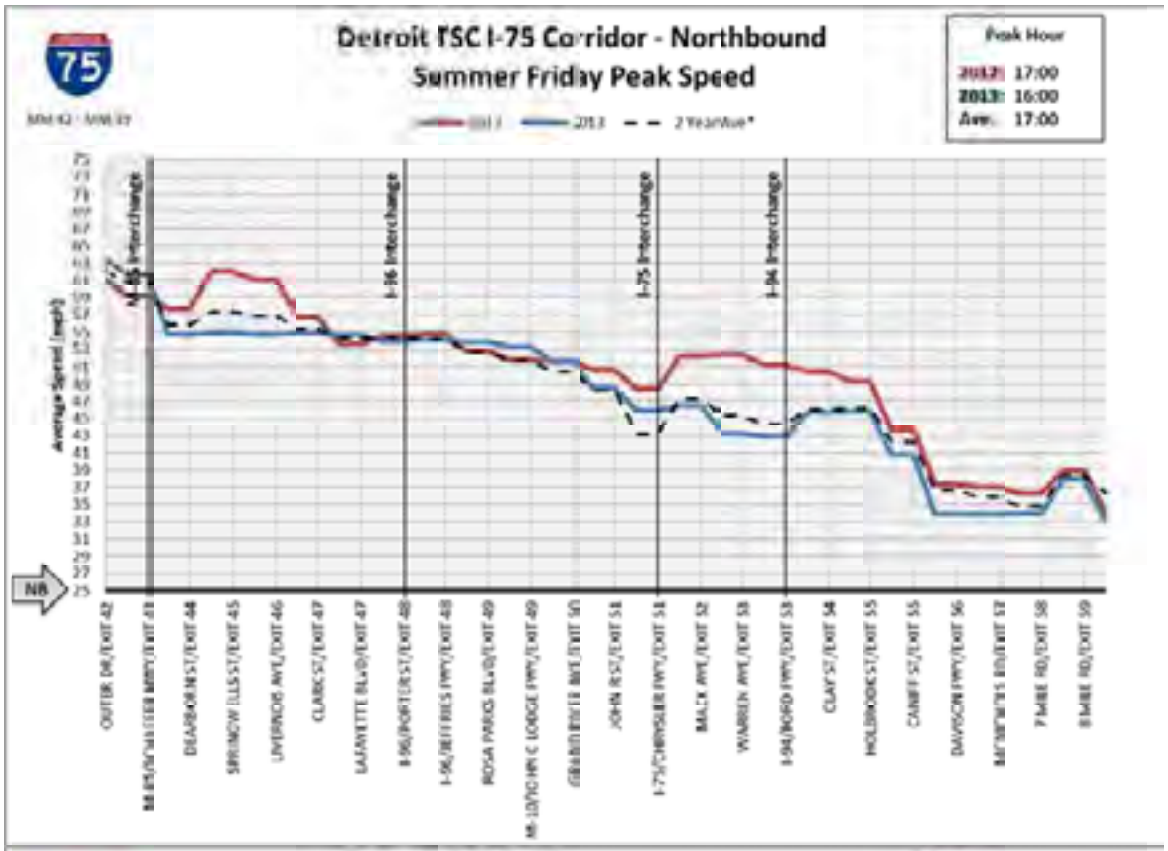

75
Detroit TSC I-75 Southbound
Average Weekday PM Peak Speed
SB

Figure 7


Detroit TSC I-75 Corridor - Northbound
Summer Friday Peak Speed
Peak Hour
2012: 17:00
2013: 16:00
Ave: 17:00
I-96 Interchange
I-75 Interchange
I-94 Interchange
NB

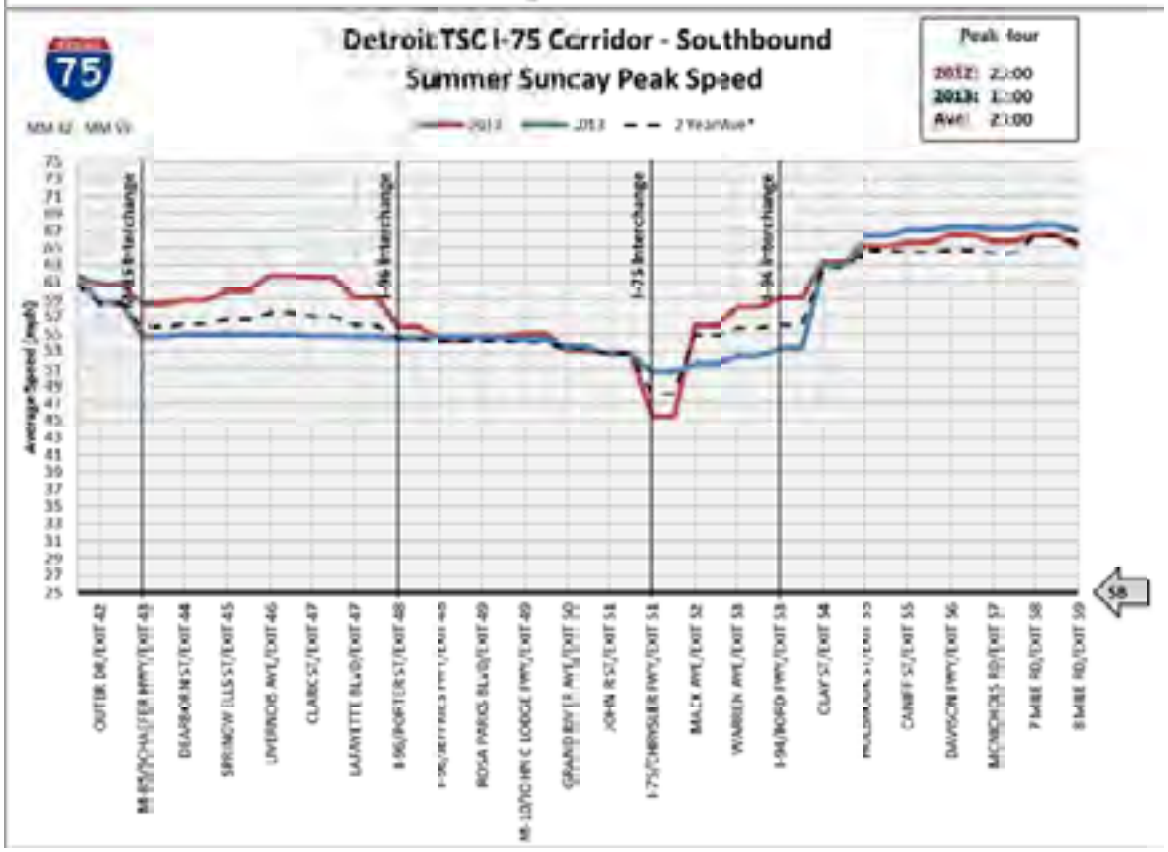
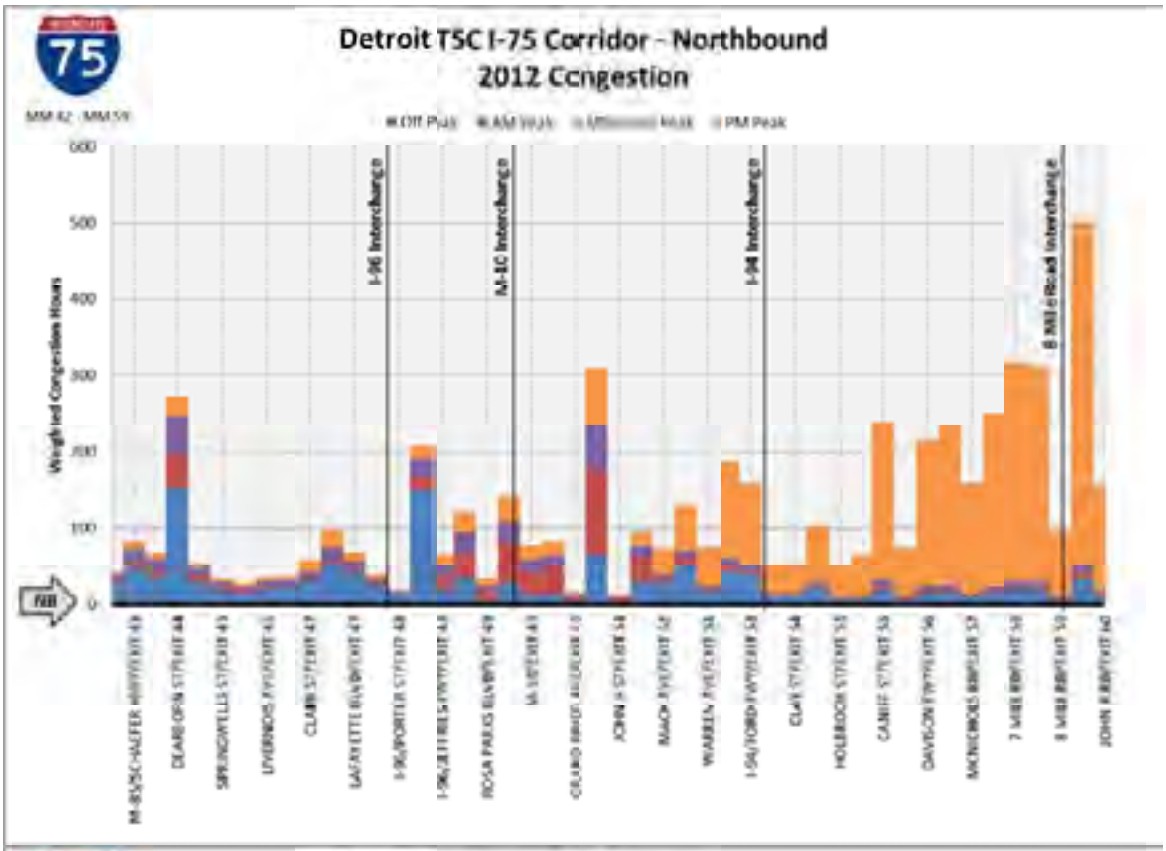

Detroit TSC I-75 Corridor - Southbound
Summer Sunday Peak Speed
Peak Hour
I-96 Interchange
I-75 Interchange
I-94 Interchange
SB

Figure 8


Detroit TSC I-75 Corridor - Northbound
2012 Congestion
Weighted Congestion Hours
I-96 Interchange
M-10 Interchange
I-94 Interchange
8 Mile Road Interchange

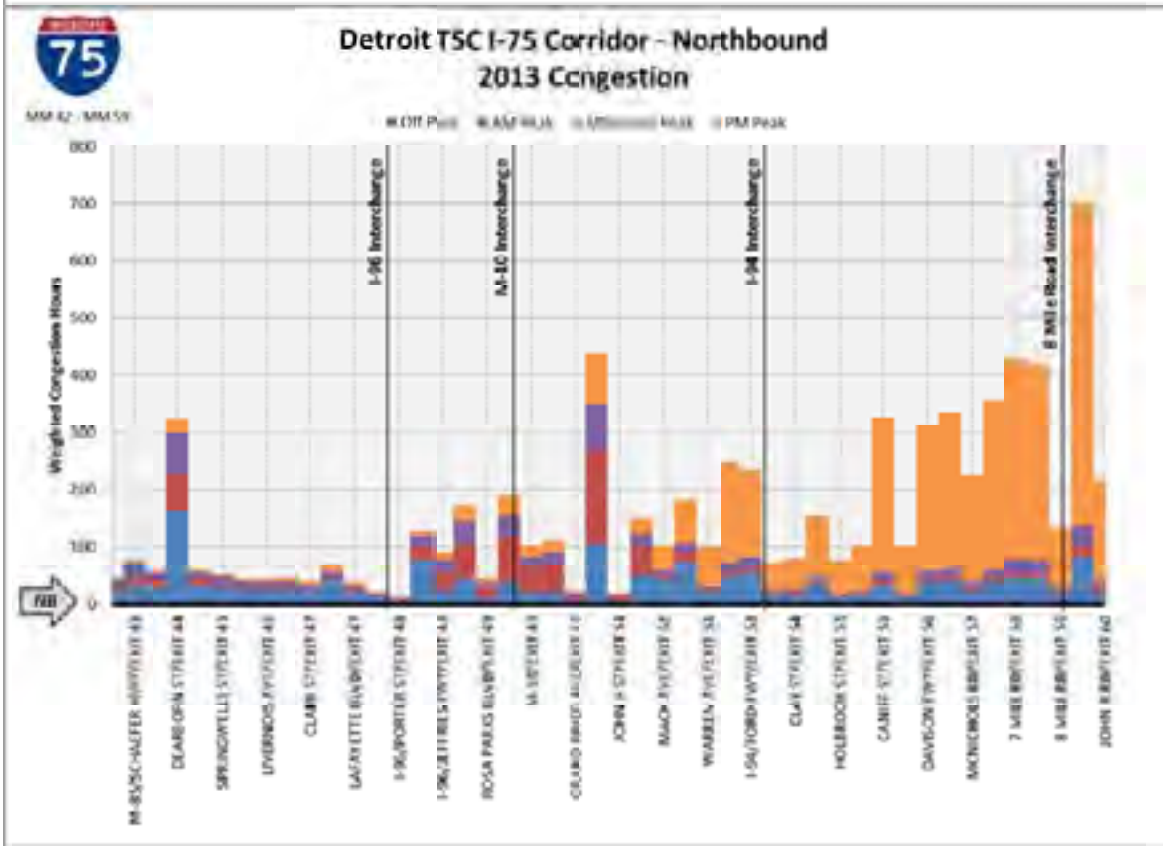
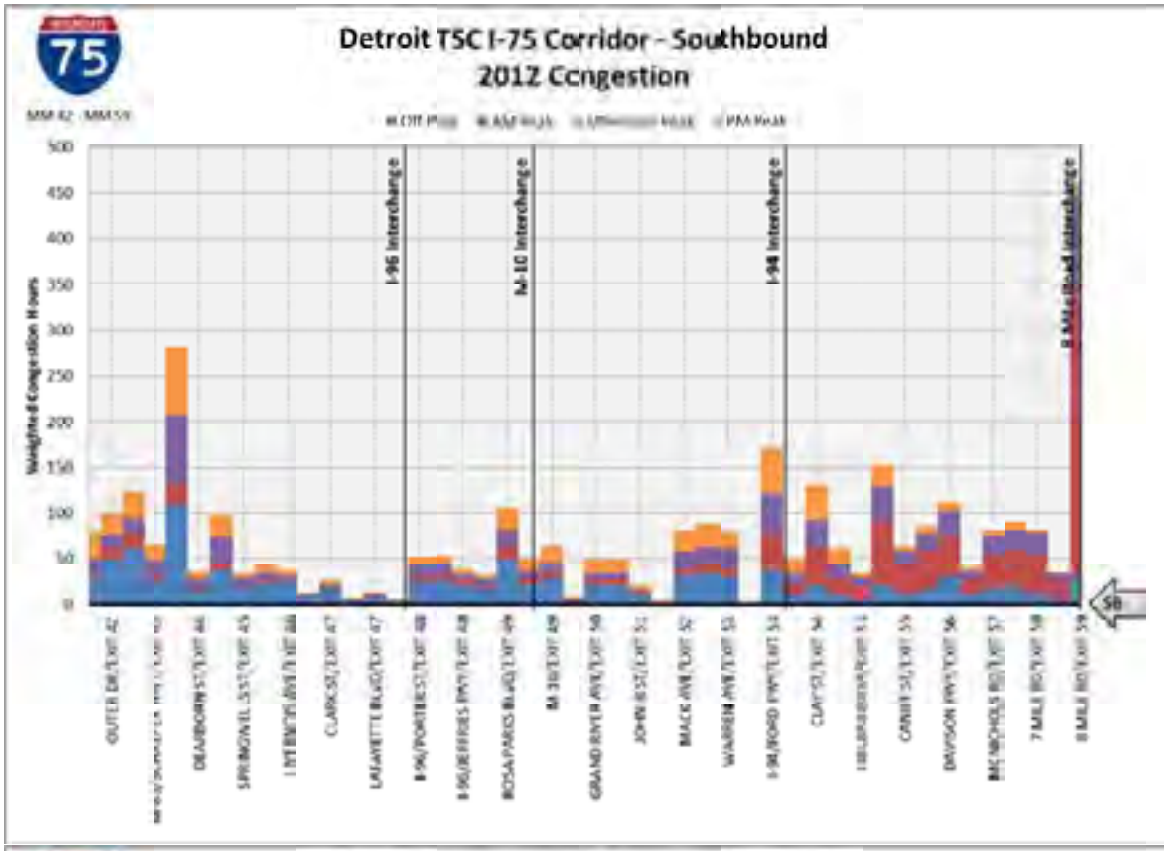

Detroit TSC I-75 Corridor - Northbound
2013 Congestion
Weighted Congestion Hours
I-96 Interchange
M-10 Interchange
I-94 Interchange
8 Mile Road Interchange

Figure 9


75
Detroit TSC I-75 Corridor - Southbound
2012 Congestion
I-96 Interchange
M-10 Interchange
I-94 Interchange
SB

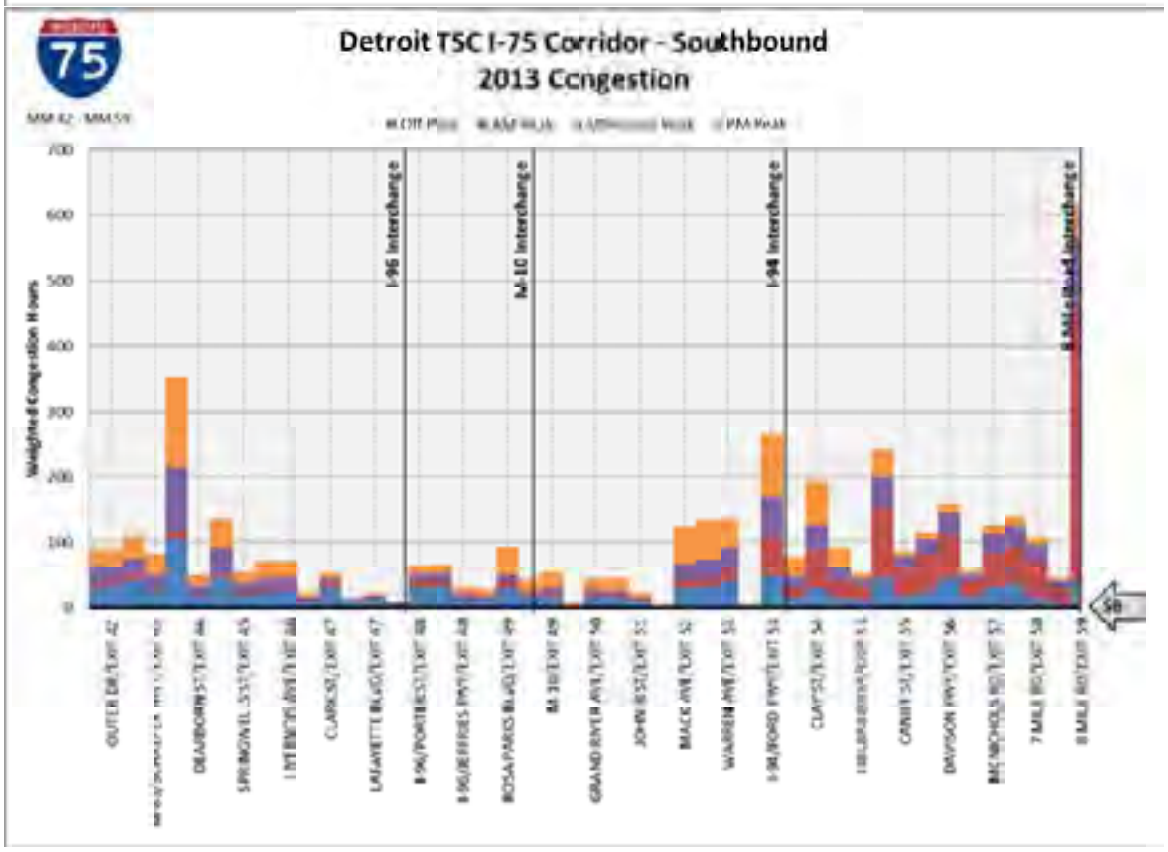

75
Detroit TSC I-75 Corridor - Southbound
2013 Congestion
I-96 Interchange
M-10 Interchange
I-94 Interchange
SB

Figure 10

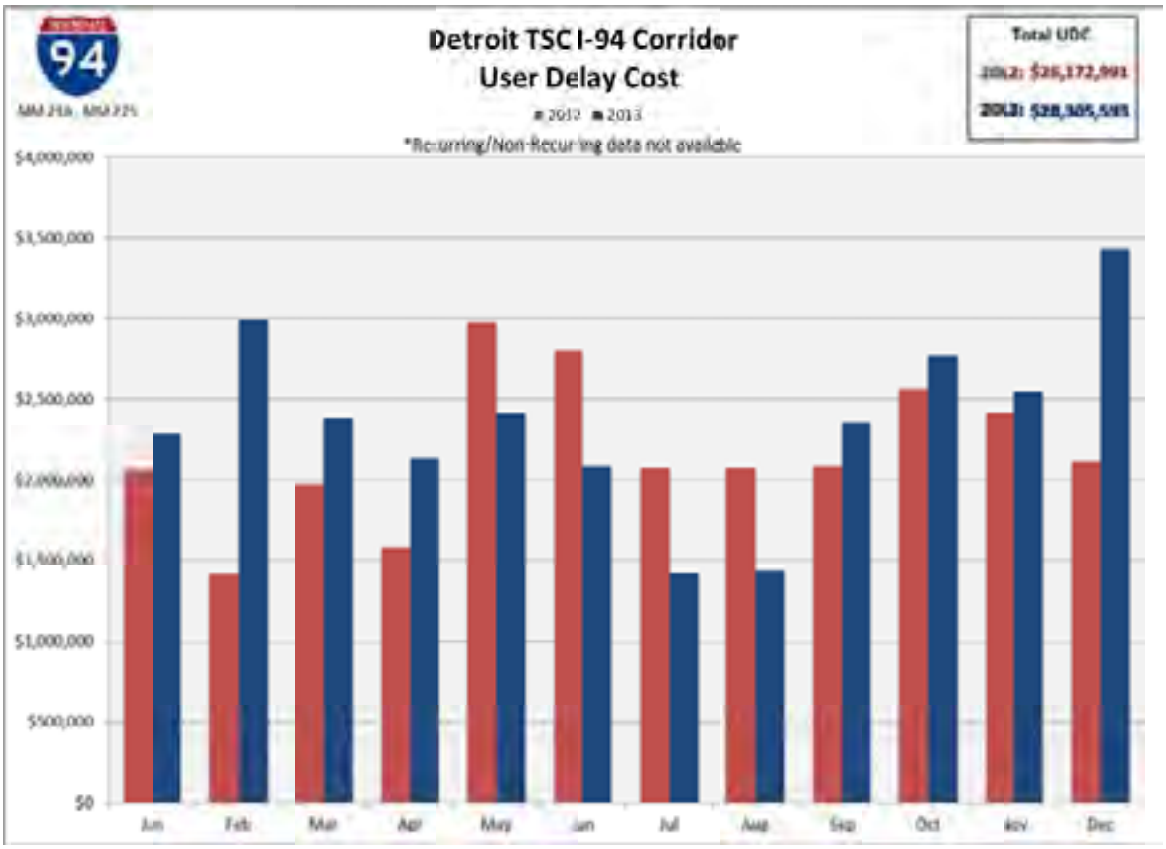
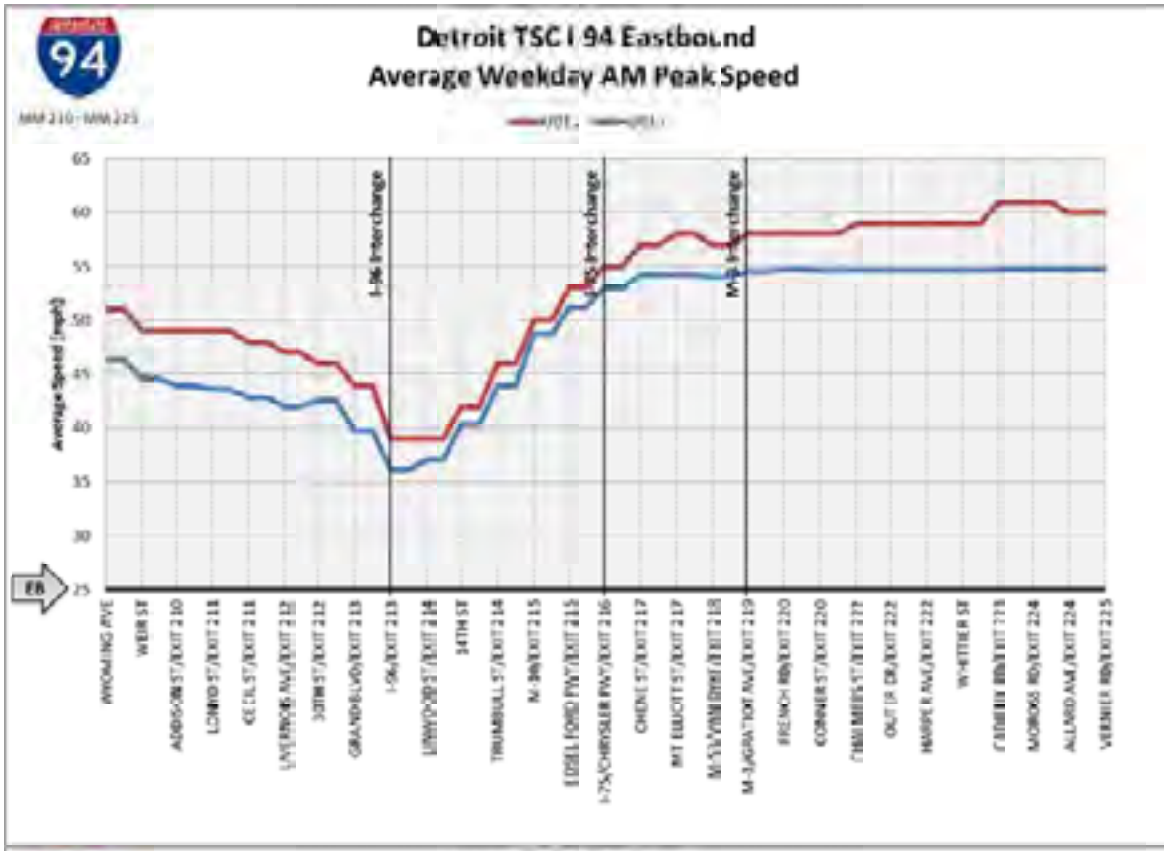

94
Detroit TSC I-94 Corridor
User Delay Cost
2012
2013
*Recurring/Non-Recurring data not available
Total UDC
$4,000,000
$3,500,000
$3,000,000
$2,500,000
$1,000,000
$500,000
$0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

Figure 11


94
Detroit TSC I-94 Eastbound
Average Weekday AM Peak Speed
I-96 Interchange
I-75 Interchange
M-3 Interchange
Average Speed (mph)
EB

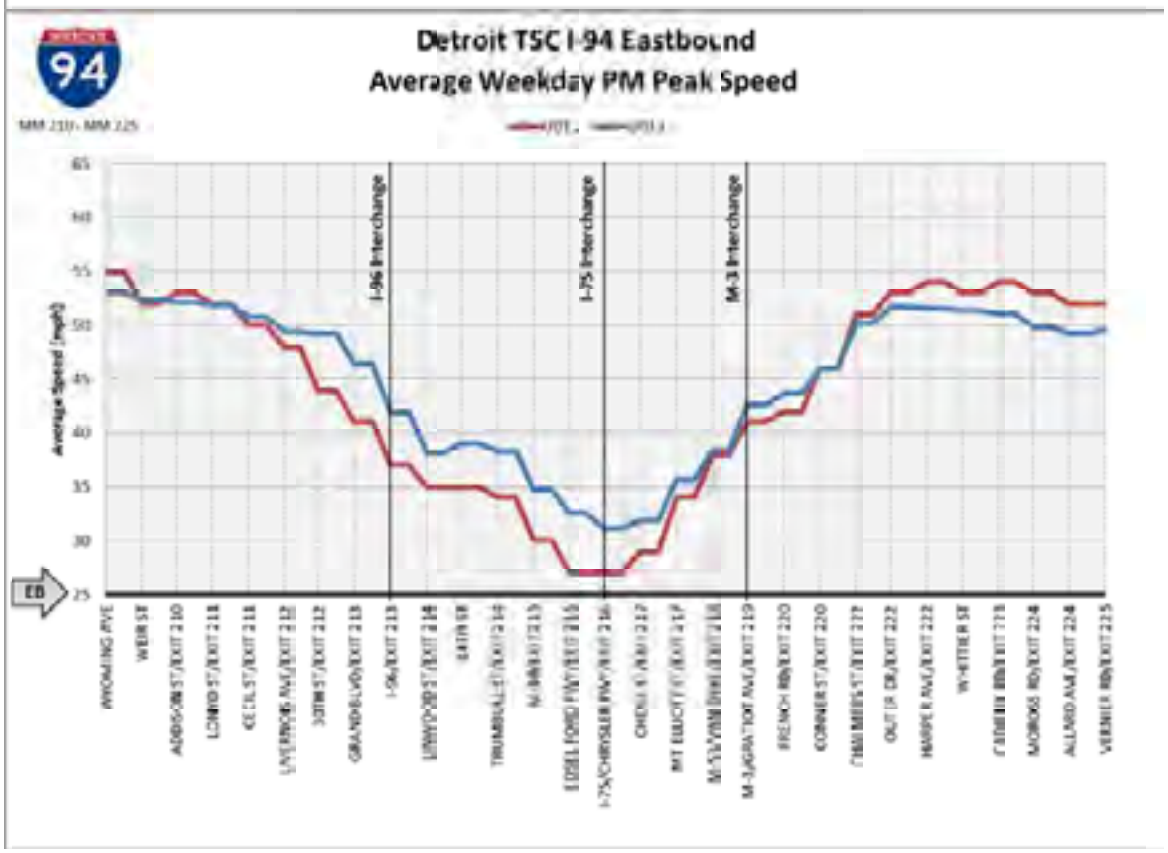
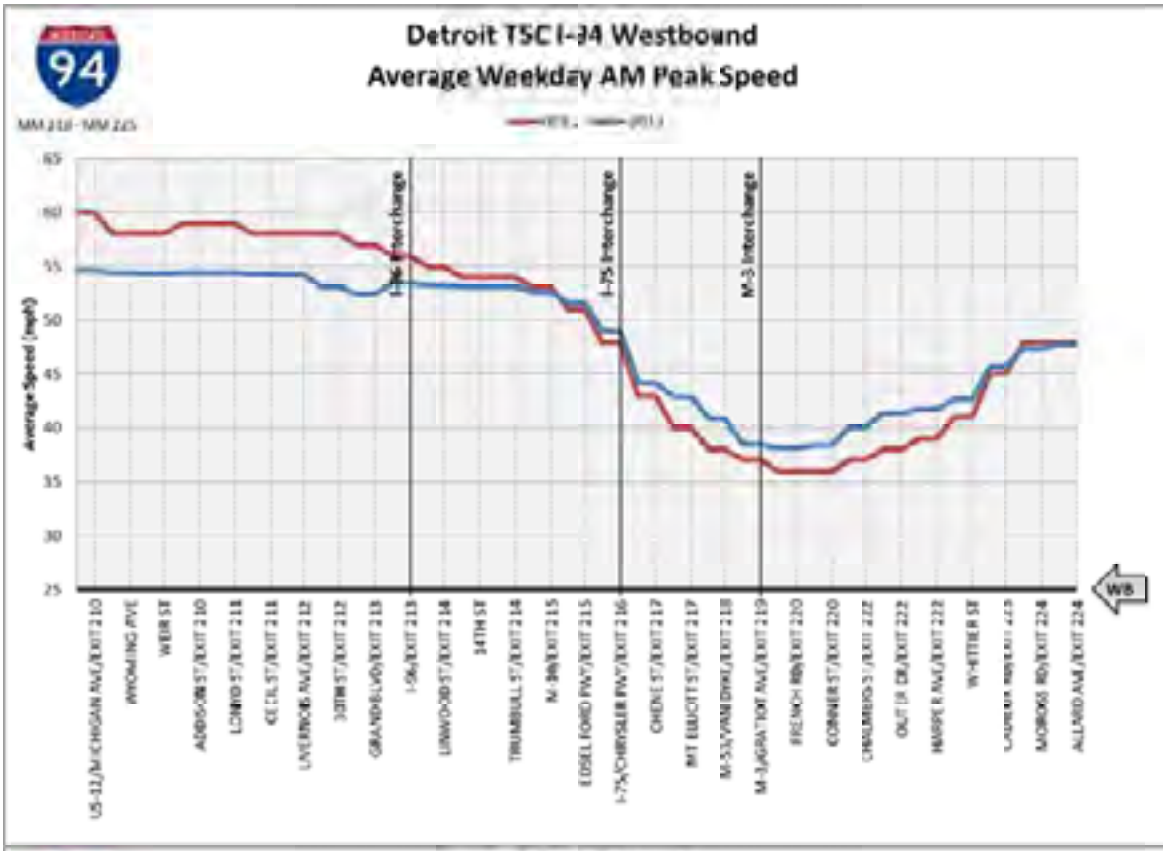

94
Detroit TSC I-94 Eastbound
Average Weekday PM Peak Speed
I-96 Interchange
I-75 Interchange
M-3 Interchange
Average Speed (mph)
EB

Figure 12


Detroit TSC I-94 Westbound
Average Weekday AM Peak Speed
I-96 Interchange
I-75 Interchange
M-3 Interchange
Average Speed (mph)
WB

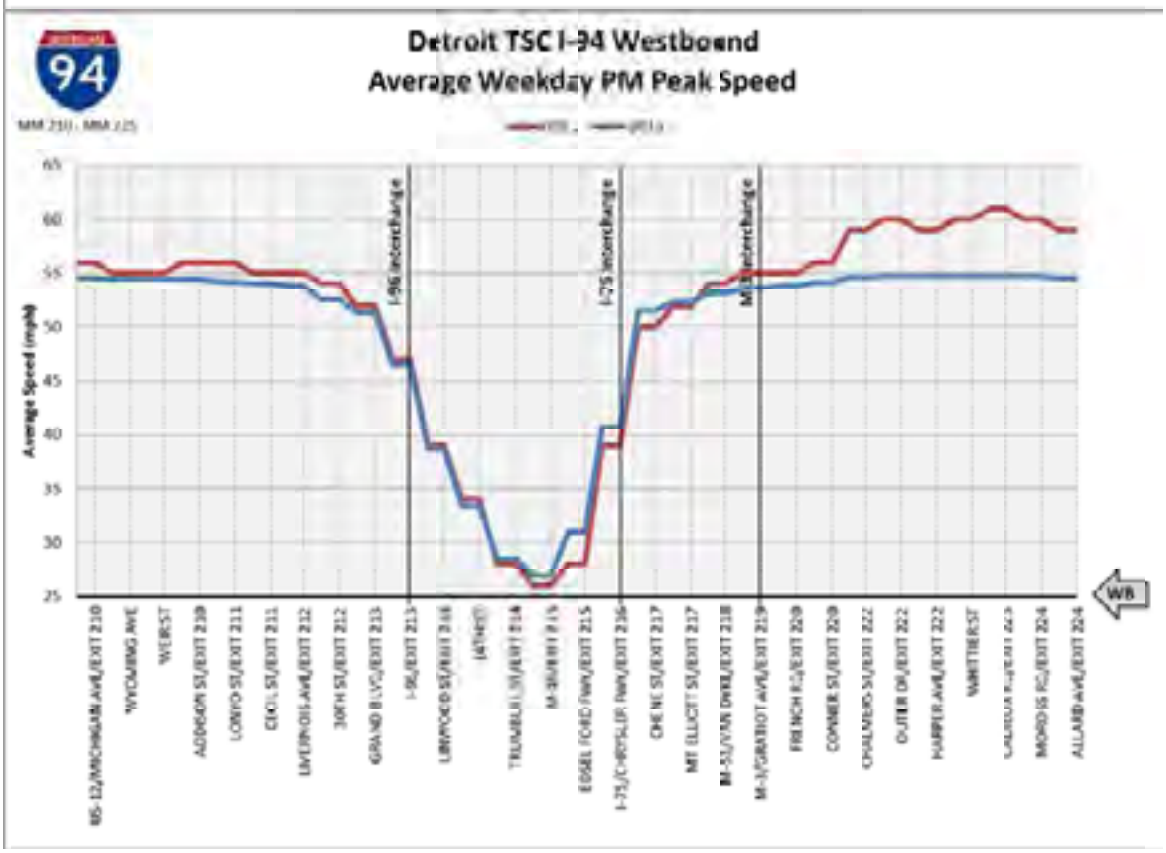
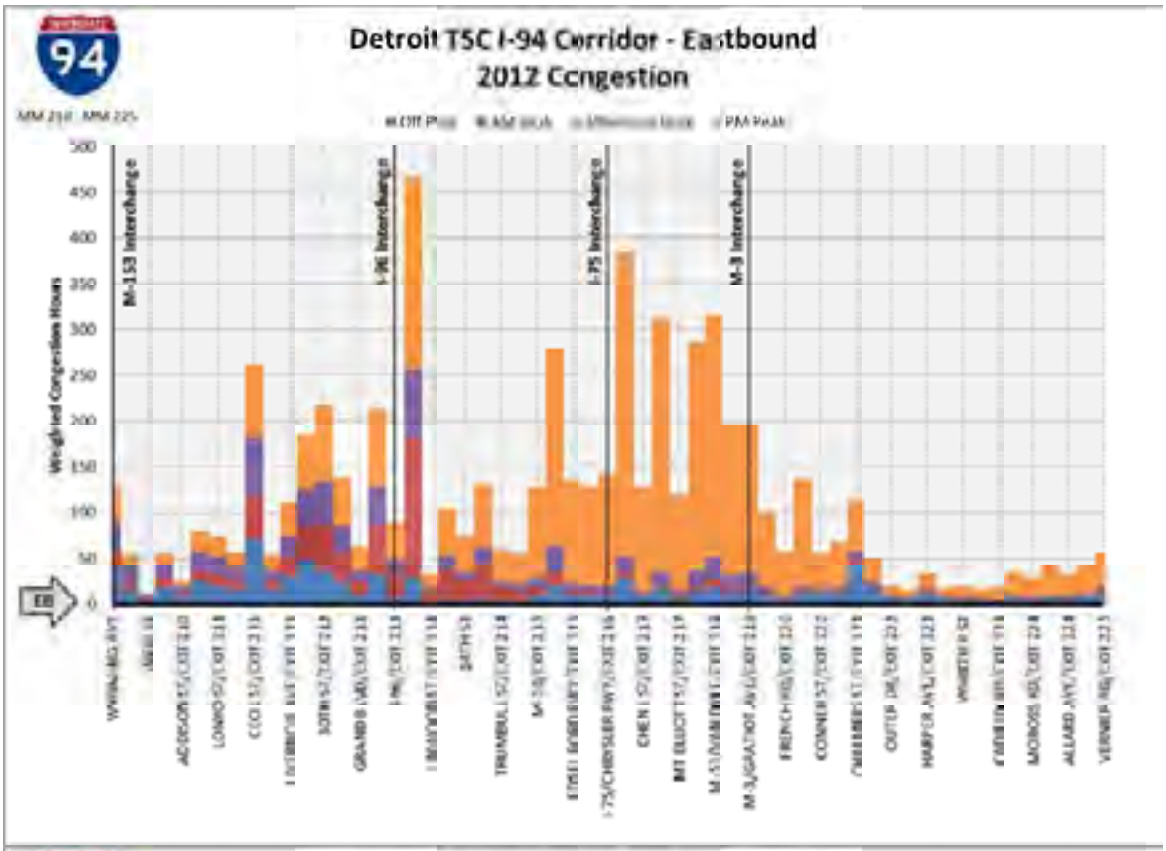

Detroit TSC I-94 Westbound
Average Weekday PM Peak Speed
I-96 Interchange
I-75 Interchange
M-3 Interchange
Average Speed (mph)
WB

Figure 13


Detroit TSC I-94 Corridor - Eastbound
2012 Congestion
Weighted Congestion Hours
M-153 Interchange
I-96 Interchange
I-75 Interchange
M-3 Interchange

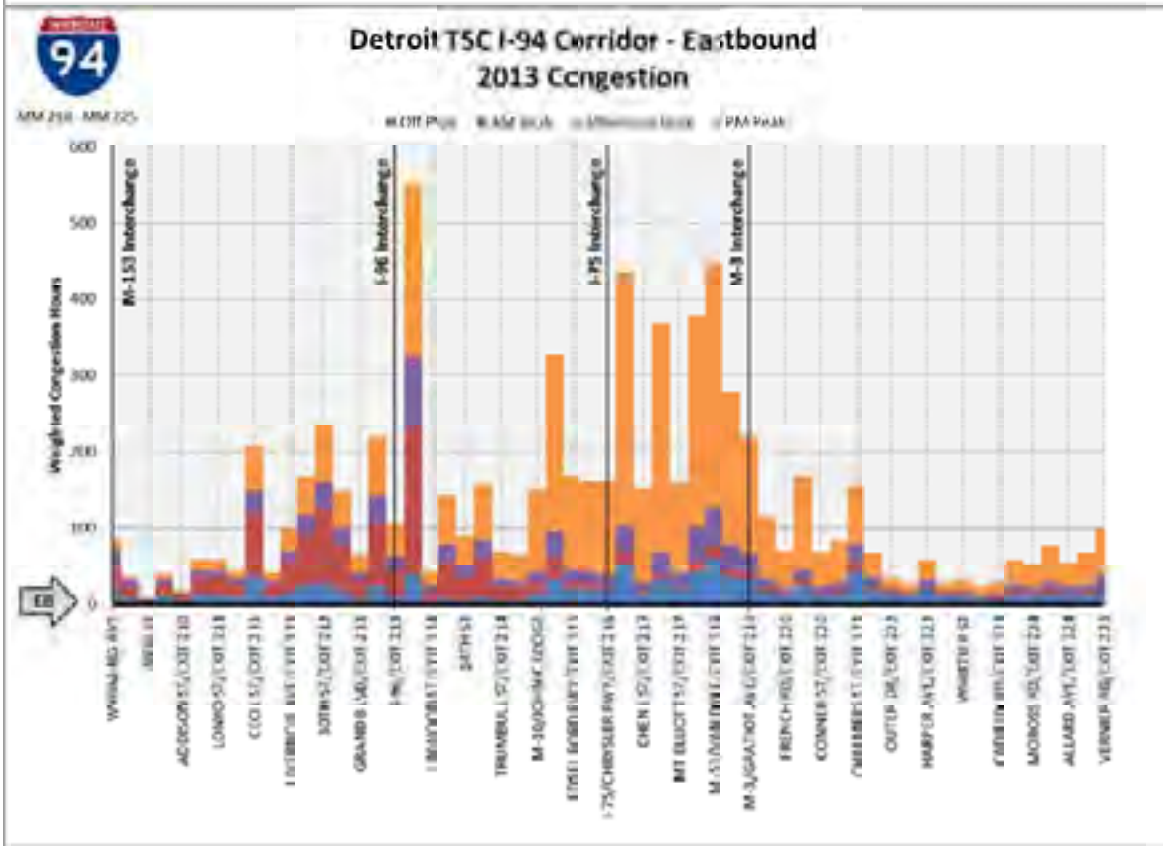
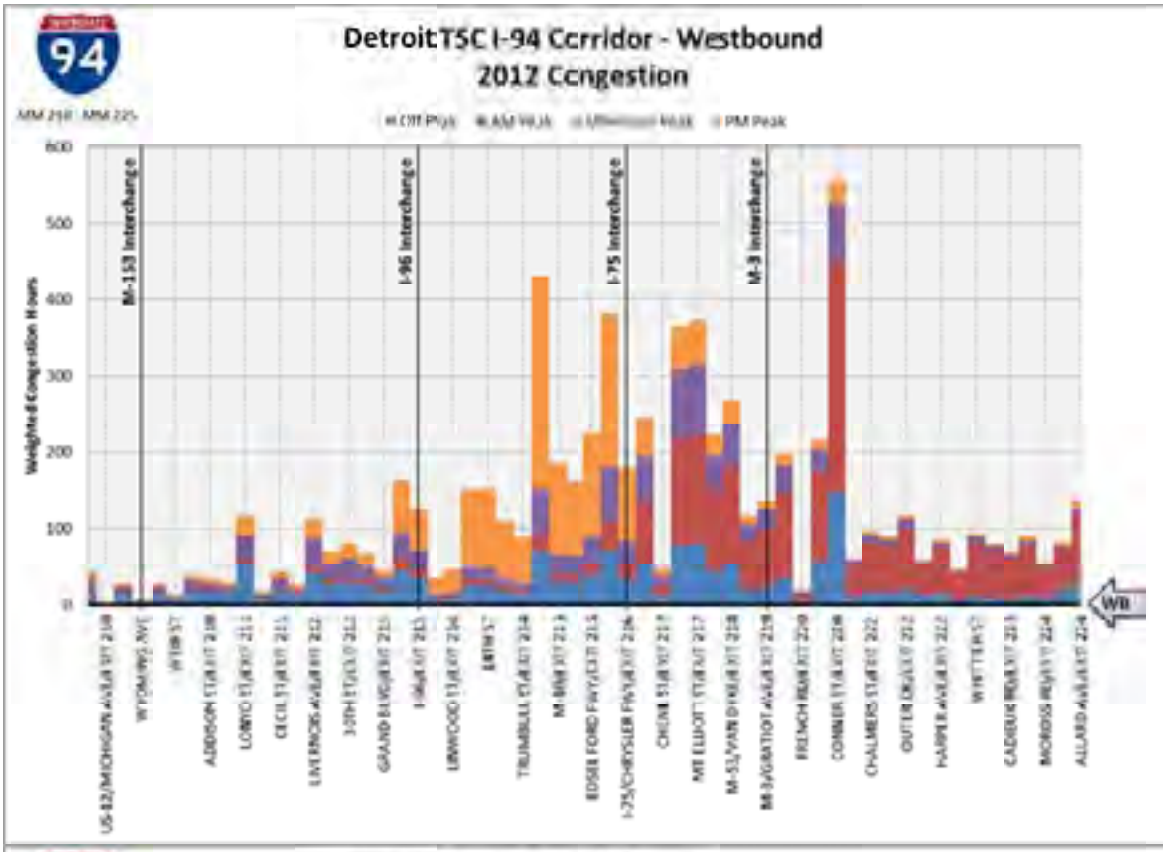

Detroit TSC I-94 Corridor - Eastbound
2013 Congestion
Weighted Congestion Hours
M-153 Interchange
I-96 Interchange
I-75 Interchange
M-3 Interchange

Figure 14


Detroit TSC I-94 Corridor - Westbound
2012 Congestion
MM 219 - MM 225
Weighted Congestion Hours
M-153 Interchange
I-96 Interchange
I-75 Interchange
M-3 Interchange
WB

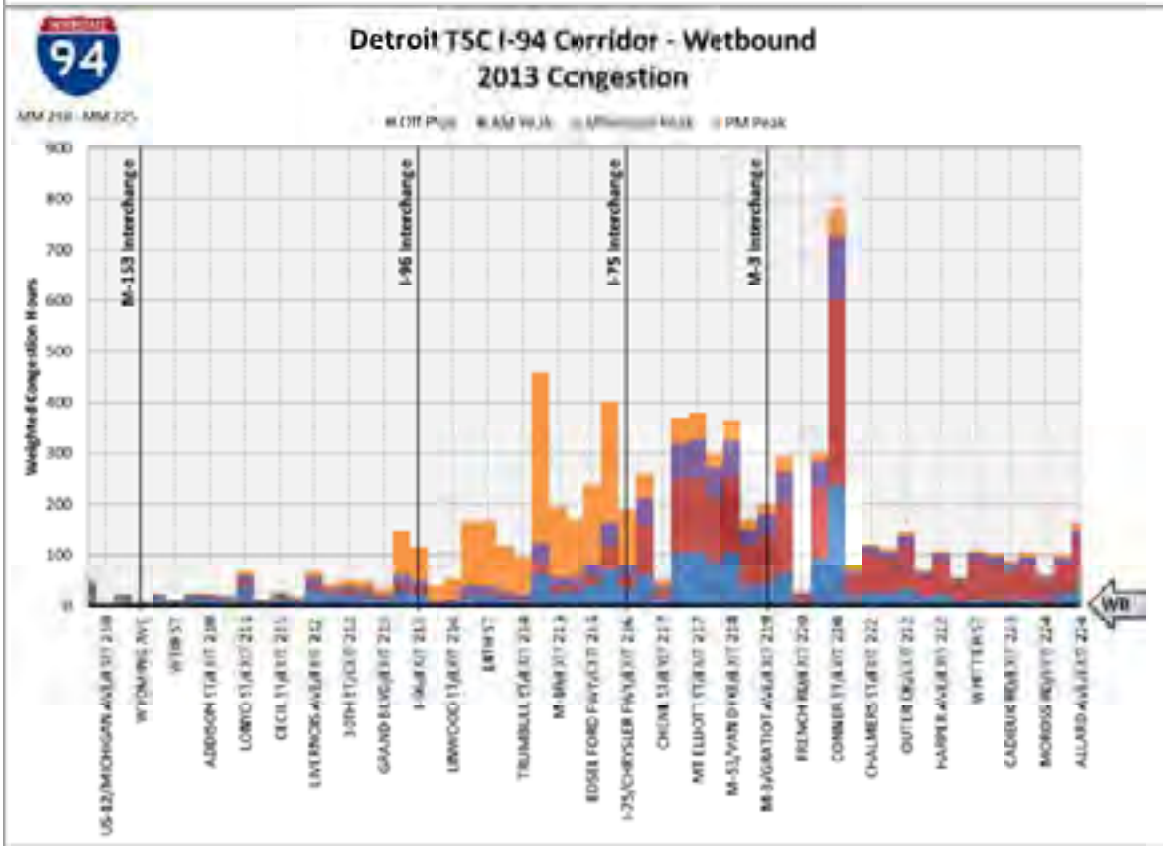
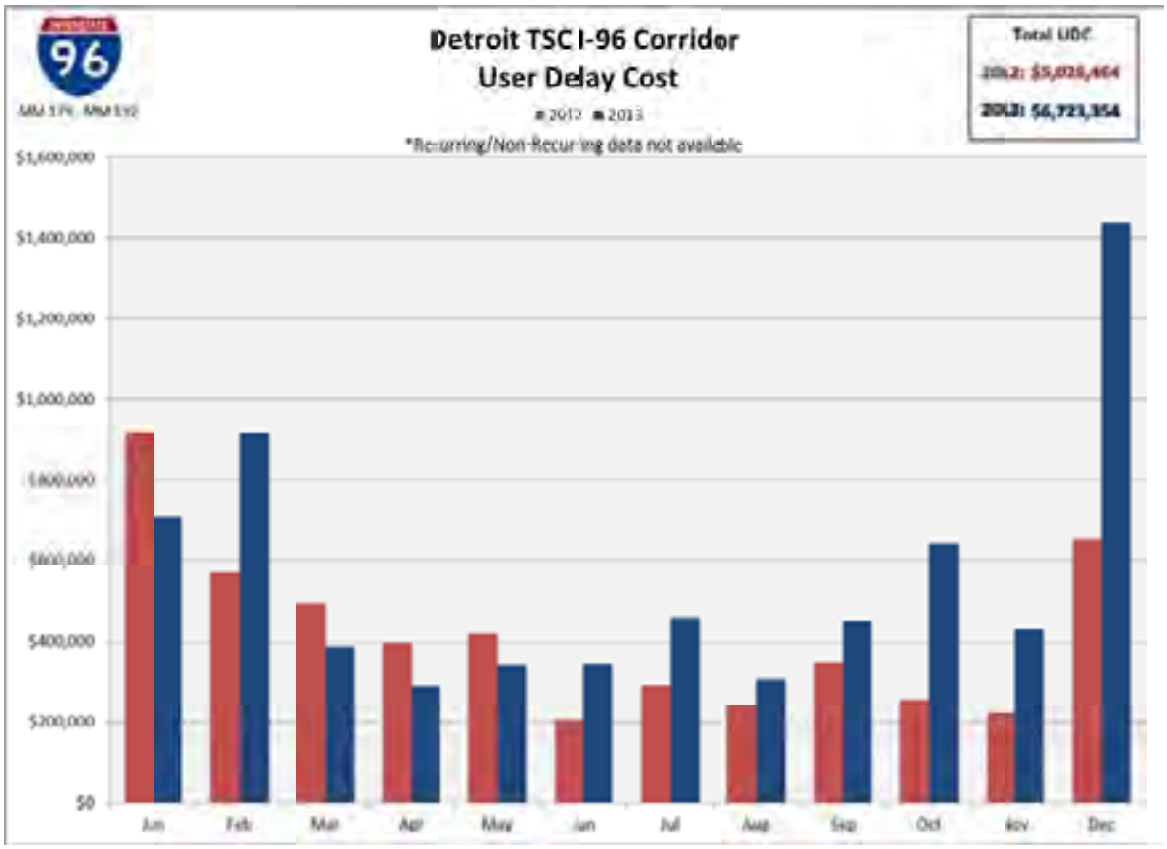

Detroit TSC I-94 Corridor - Wetbound
2013 Congestion
MM 219 - MM 225
Weighted Congestion Hours
M-153 Interchange
I-96 Interchange
I-75 Interchange
M-3 Interchange
WB

Figure 15


96
Detroit TSC I-96 Corridor
User Delay Cost
*Recurring/Non-Recurring data not available
Total UDC
2013: $6,723,354
$1,600,000
$1,400,000
$1,200,000
$1,000,000
$400,000
$200,000
$0
Jan
Feb
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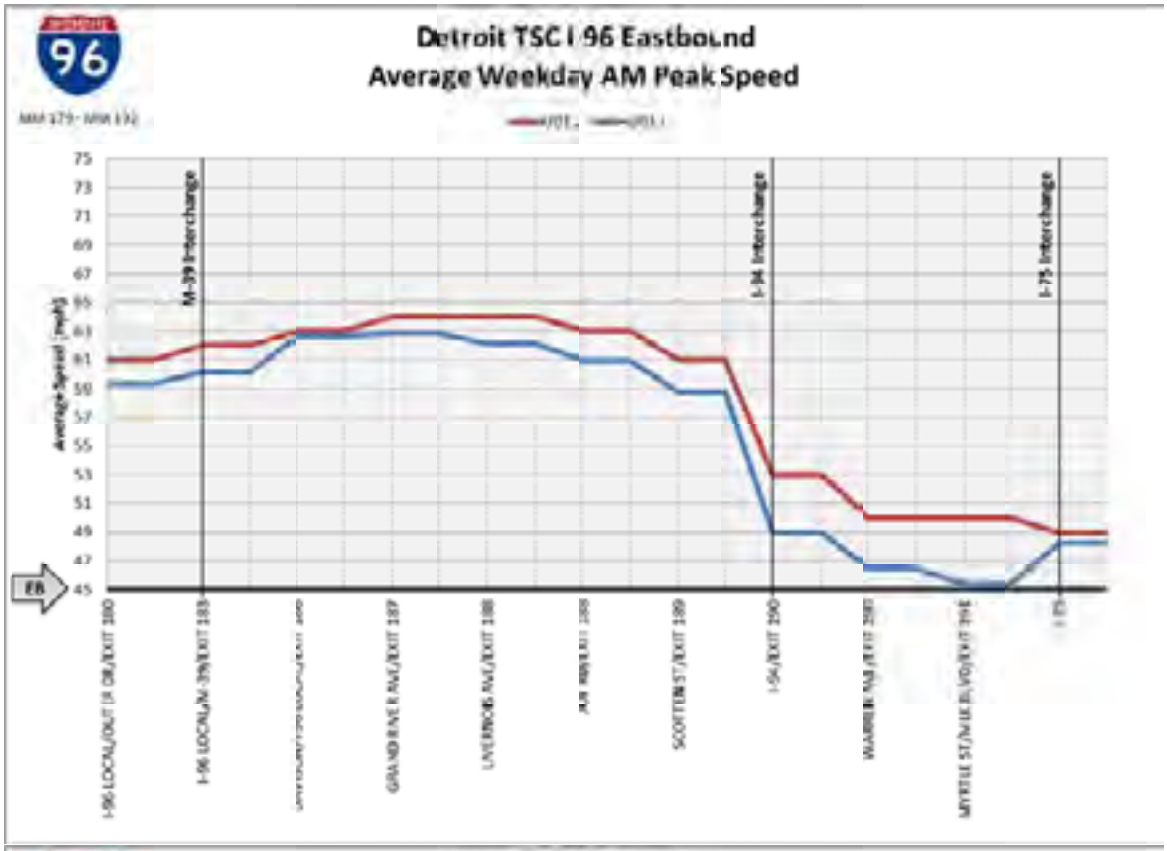
Dec

Figure 16


Detroit TSC I-96 Eastbound
Average Weekday AM Peak Speed
M-39 Interchange
I-94 Interchange
I-75 Interchange
EB

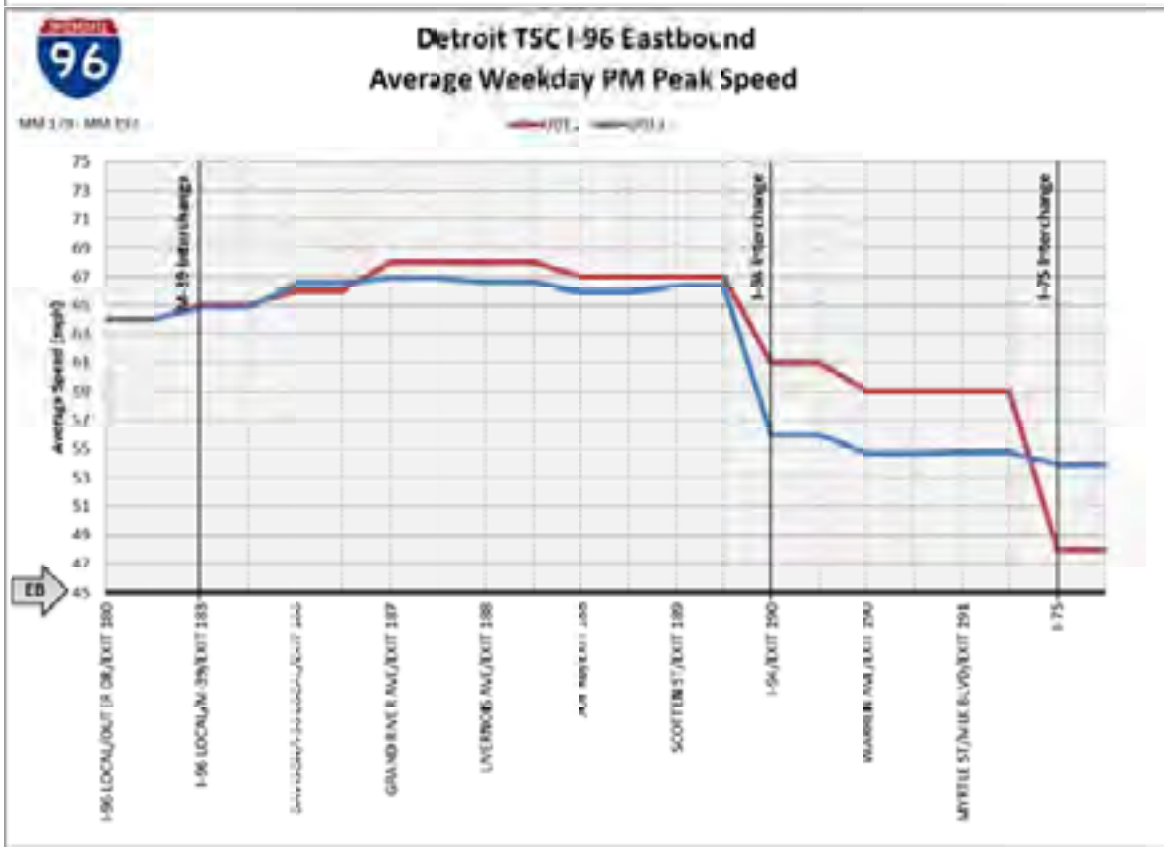
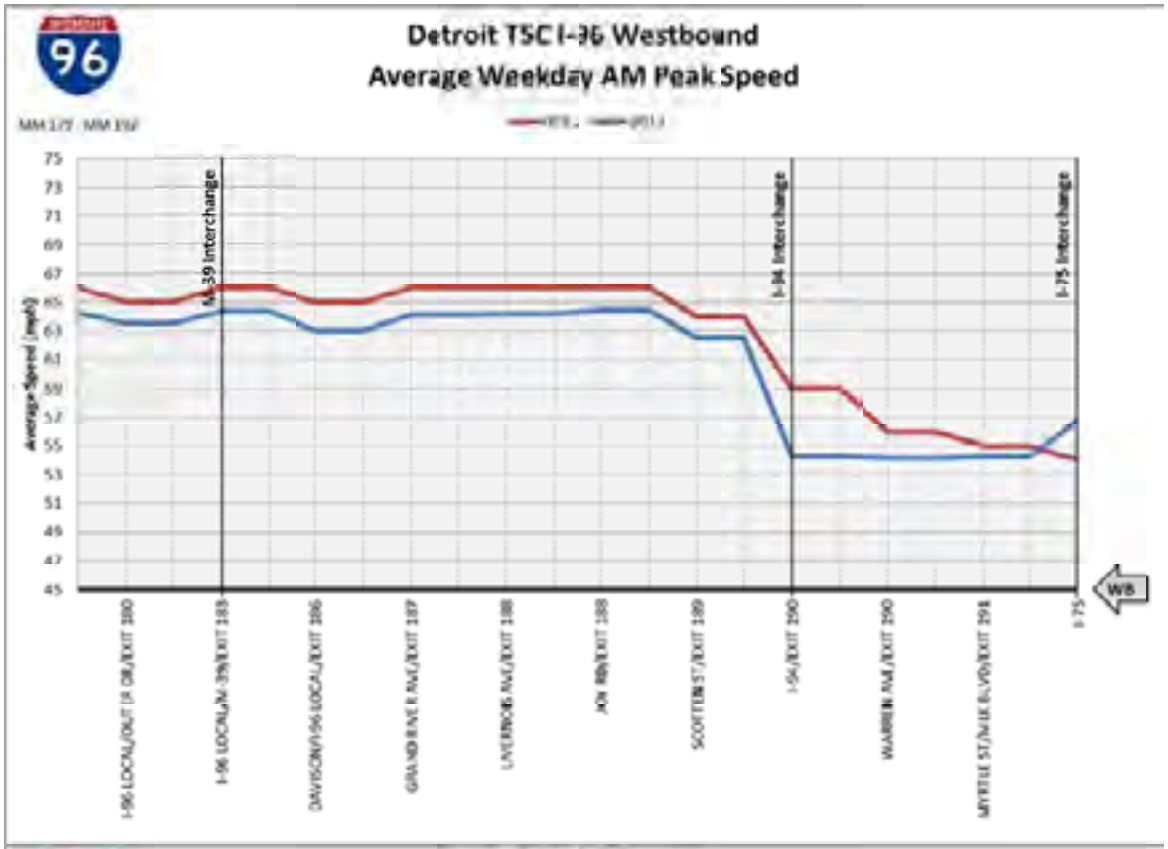

Detroit TSC I-96 Eastbound
Average Weekday PM Peak Speed
M-39 Interchange
I-94 Interchange
I-75 Interchange
EB

Figure 17


96
Detroit TSC I-96 Westbound
Average Weekday AM Peak Speed
M-39 interchange
I-94 Interchange
I-75 Interchange
Average Speed (mph)
WB

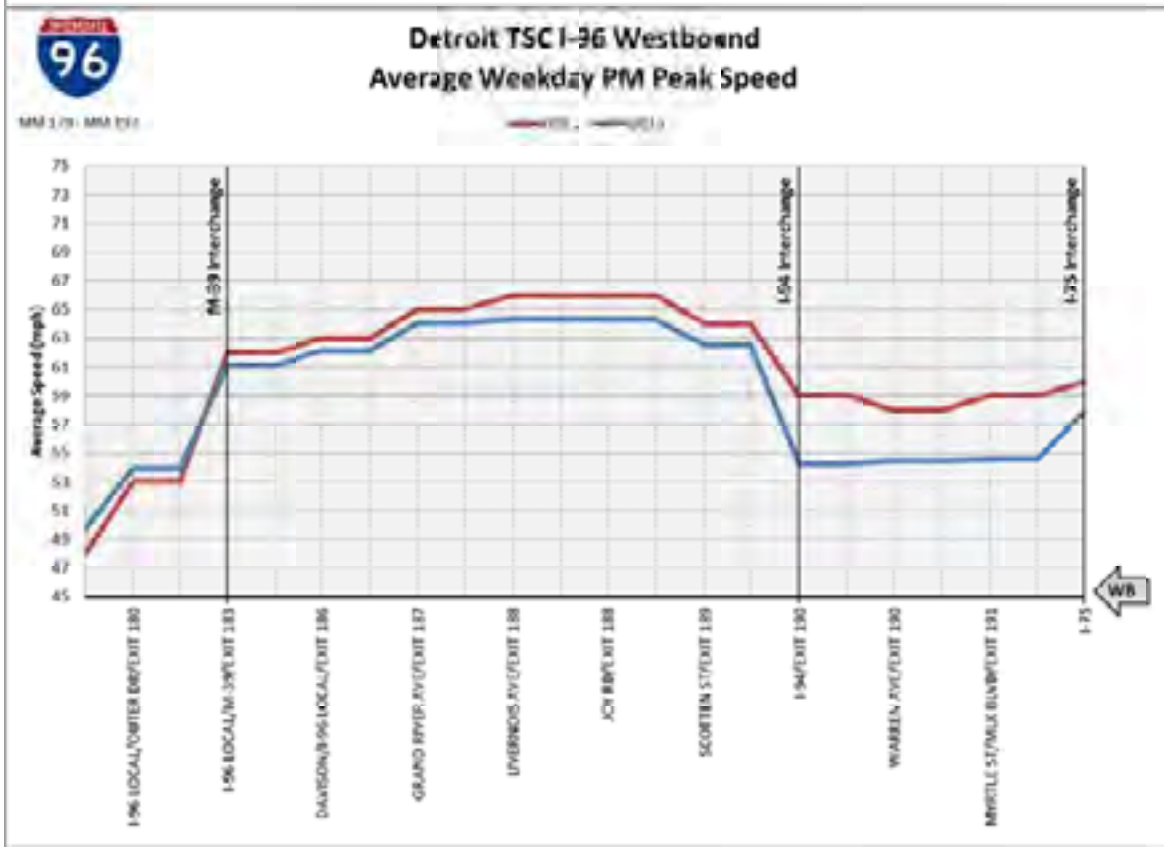
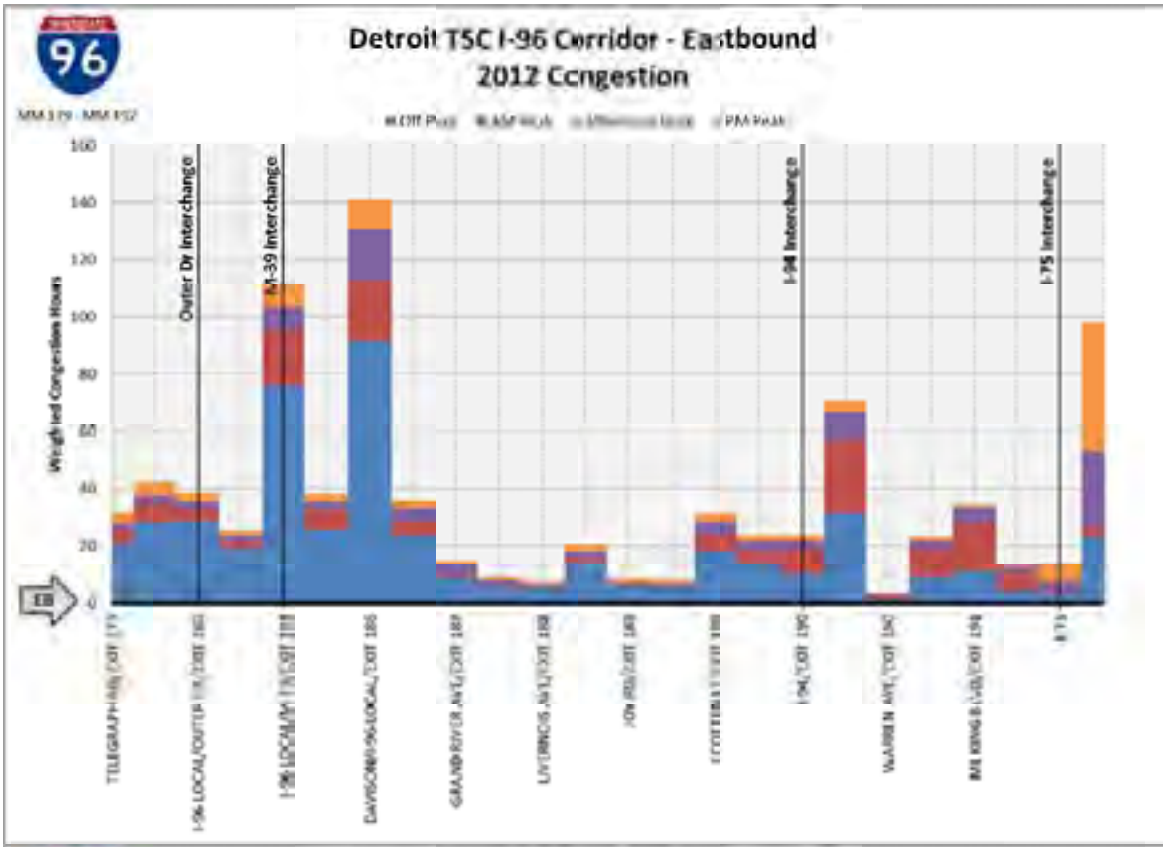

96
Detroit TSC I-96 Westbound
Average Weekday PM Peak Speed
M-39 Interchange
I-94 Interchange
I-75 Interchange
Average Speed (mph)
WB

Figure 18


96
Detroit TSC I-96 Corridor - Eastbound
2012 Congestion
Weighted Congestion Hours
Outer Dr Interchange
M-39 Interchange
I-94 Interchange
I-75 Interchange

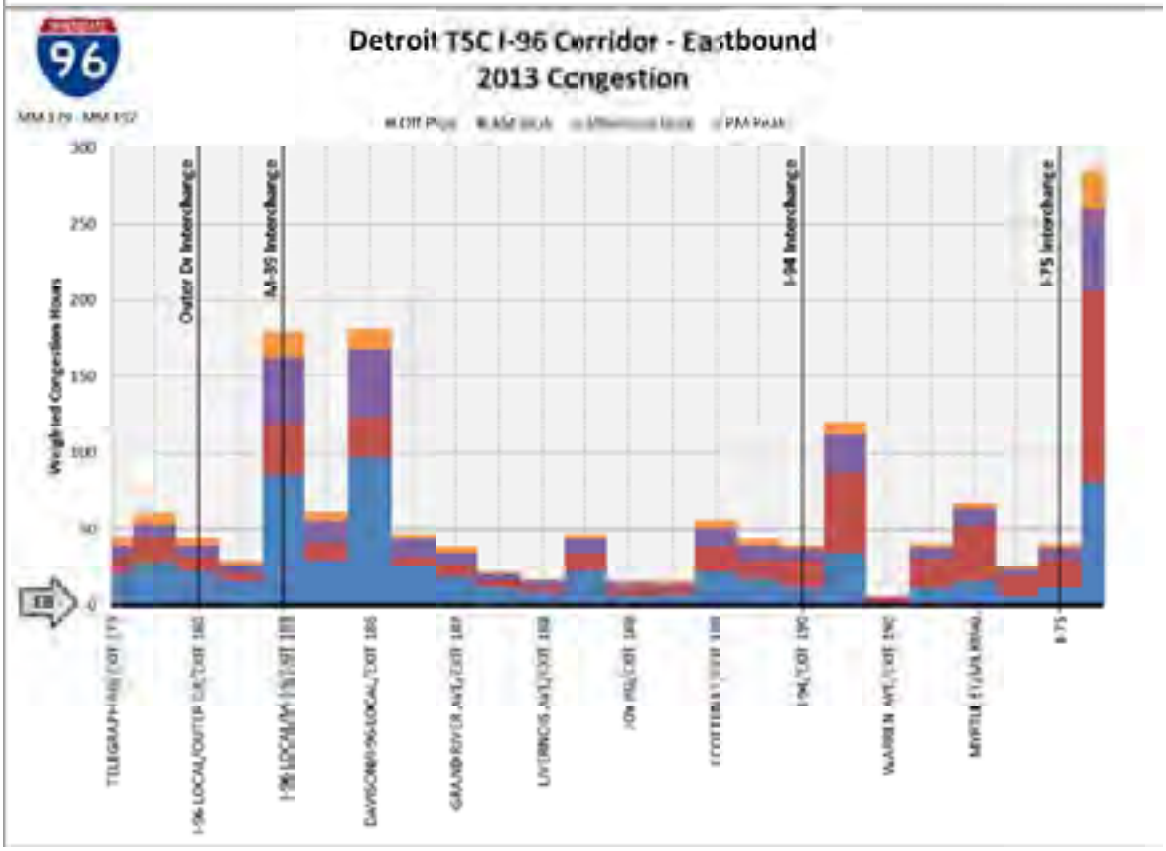
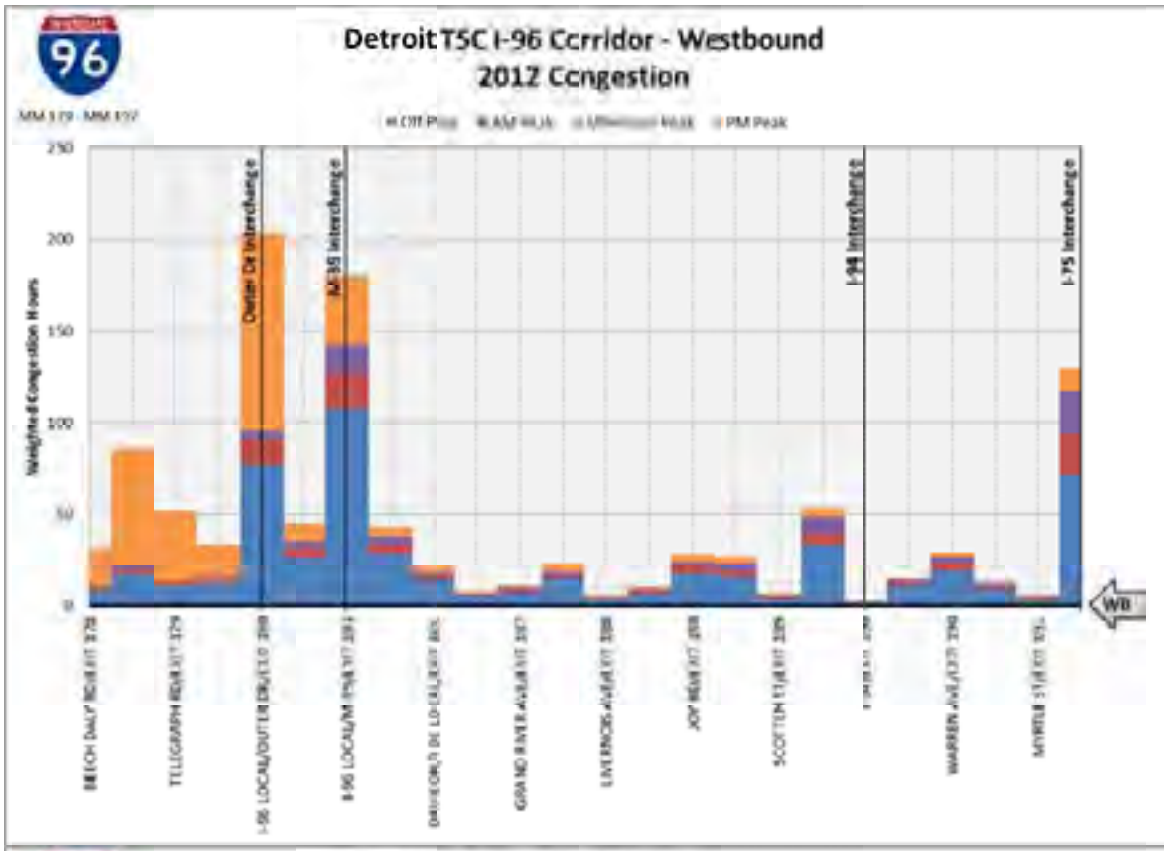

96
Detroit TSC I-96 Corridor - Eastbound
2013 Congestion
Weighted Congestion Hours
Outer Dr Interchange
M-39 Interchange
I-94 Interchange
I-75 Interchange

Figure 19


96
Detroit TSC I-96 Corridor - Westbound
2012 Congestion
Outer Dr Interchange
M-39 Interchange
I-94 Interchange
I-75 Interchange
WB

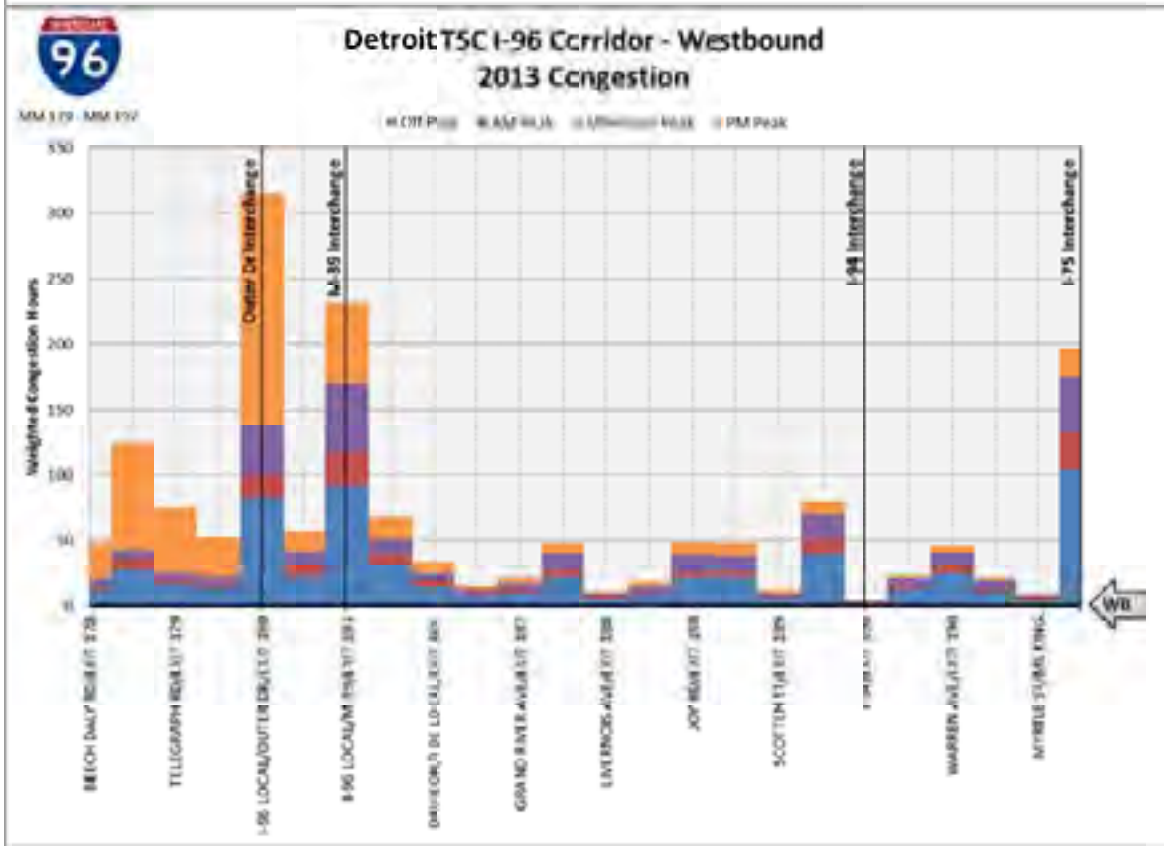

96
Detroit TSC I-96 Corridor - Westbound
2013 Congestion
Outer Dr Interchange
M-39 Interchange
I-94 Interchange
I-75 Interchange
WB

Figure 20

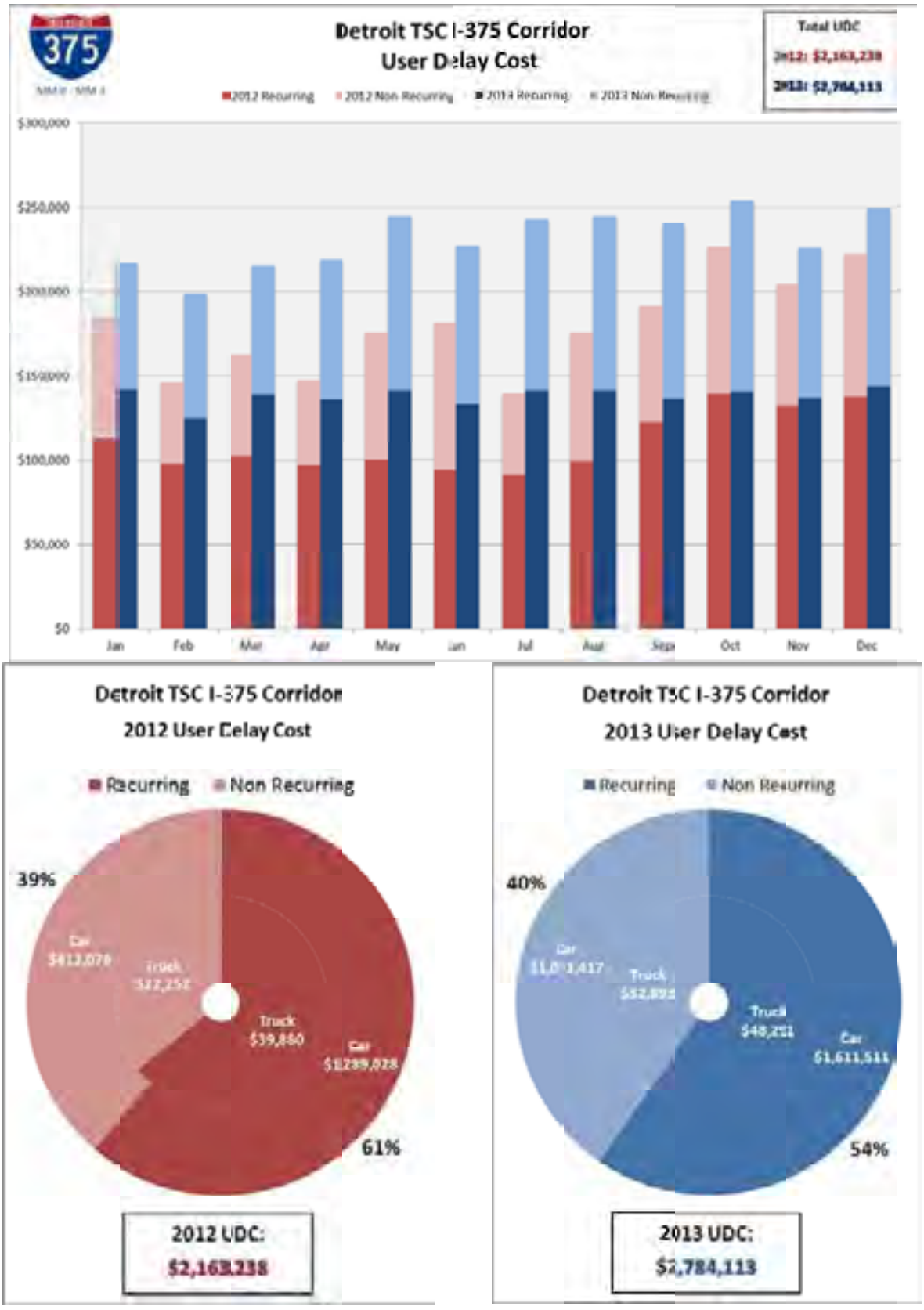
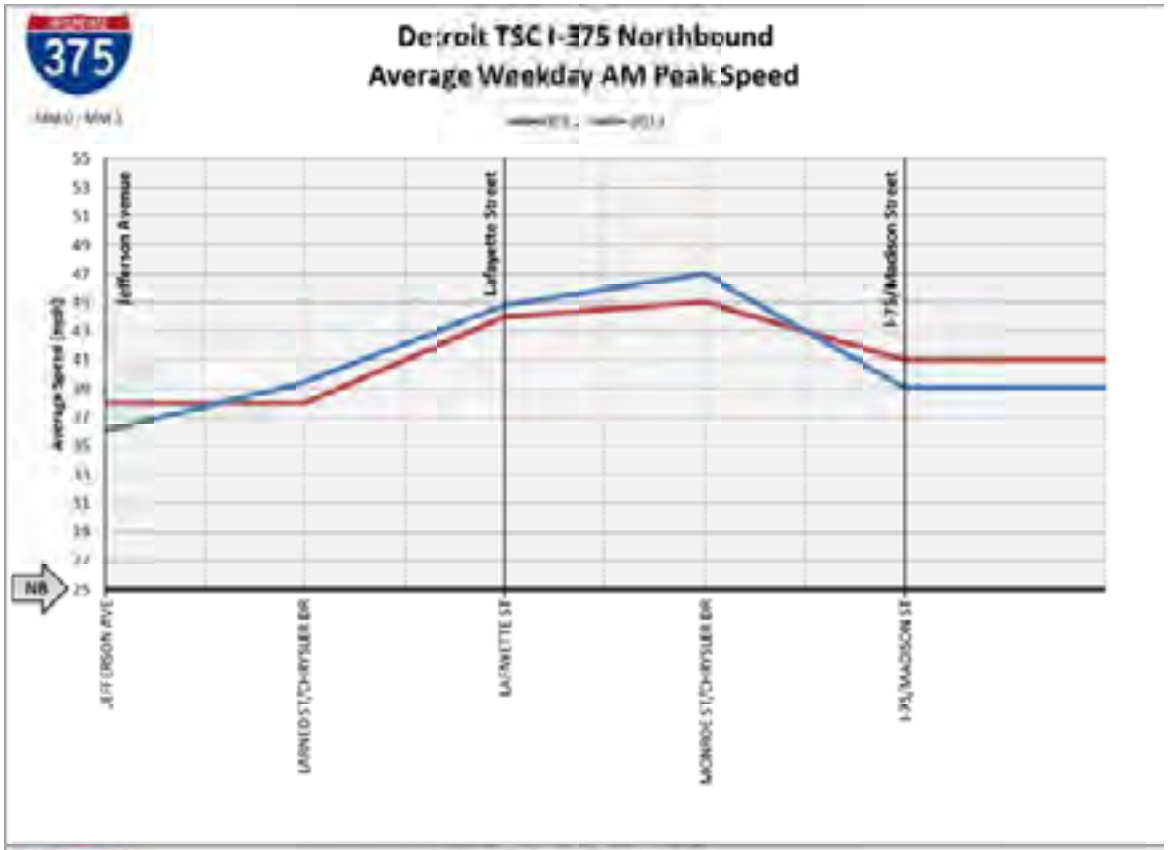

375
Detroit TSC I-375 Corridor
User Delay Cost
Total UDC
2012 Recurring
2012 Non Recurring
2013 Recurring
$300,000
$250,000
$200,000
$150,000
$100,000
$50,000
$0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Detroit TSC I-375 Corridor
2012 User Delay Cost
Recurring
Non Recurring
39%
Car
$813,078
Truck
$39,860
61%
2012 UDC:
$2,163,238
Detroit TSC I-375 Corridor
2013 User Delay Cost
Recurring
Non Recurring
40%
Truck
$48,251
54%
2013 UDC:
$2,784,113

Figure 21


375
Detroit TSC I-375 Northbound
Average Weekday AM Peak Speed
Jefferson Avenue
Lafayette Street
I-75/Madison Street
NB

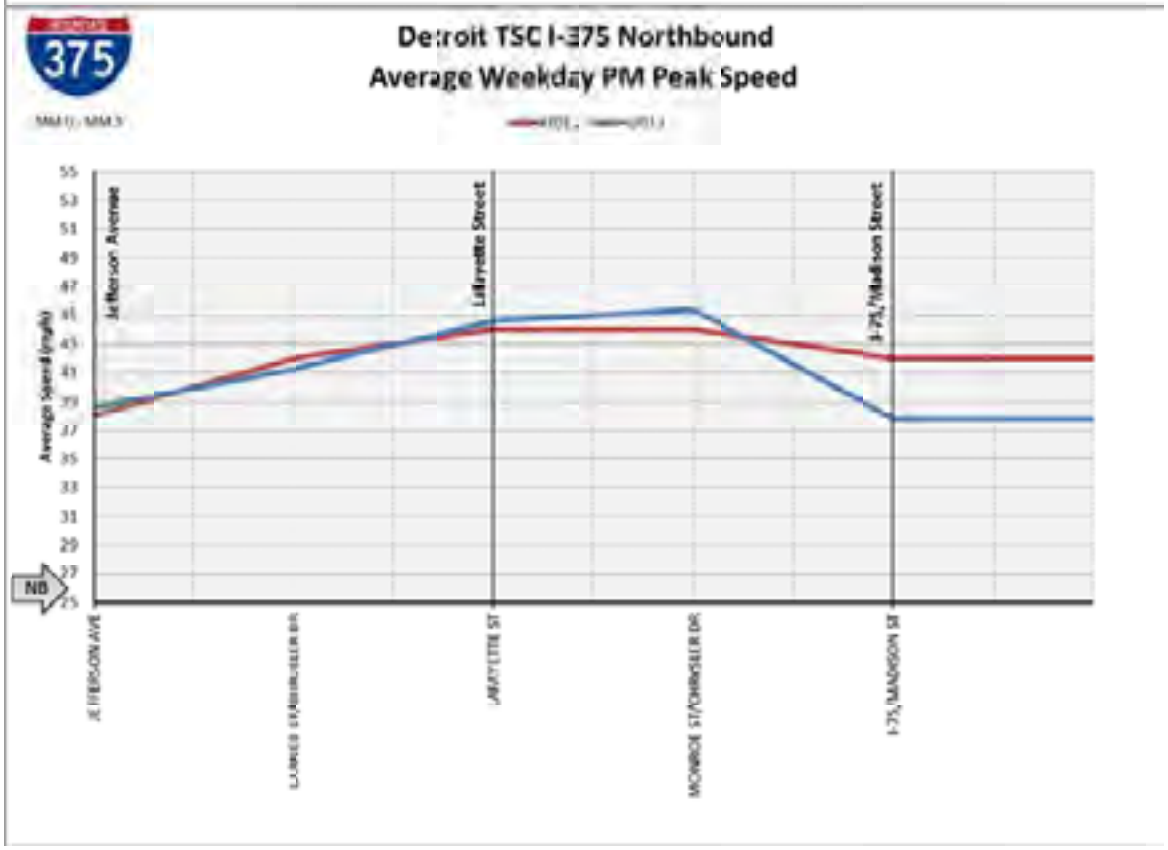
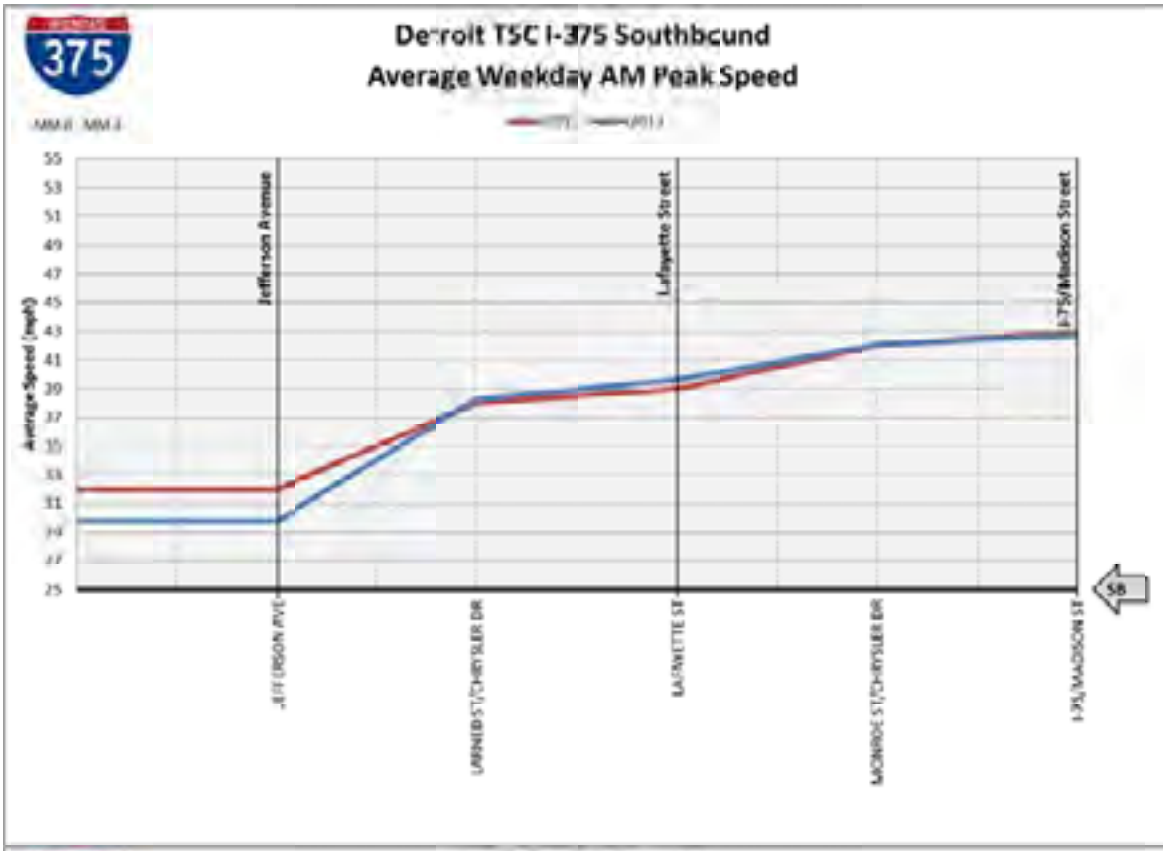

375
Detroit TSC I-375 Northbound
Average Weekday PM Peak Speed
Jefferson Avenue
Lafayette Street
I-75/Madison Street
NB

Figure 22


375
Detroit TSC I-375 Southbound
Average Weekday AM Peak Speed
Average Speed (mph)
55
53
51
49
47
45
43
41
39
37
35
33
31
29
27
25
Jefferson Avenue
Lafayette Street
I-75/Madison Street
SB
JEFFERSON AVE
LAFAYETTE ST
I-75/MADISON ST

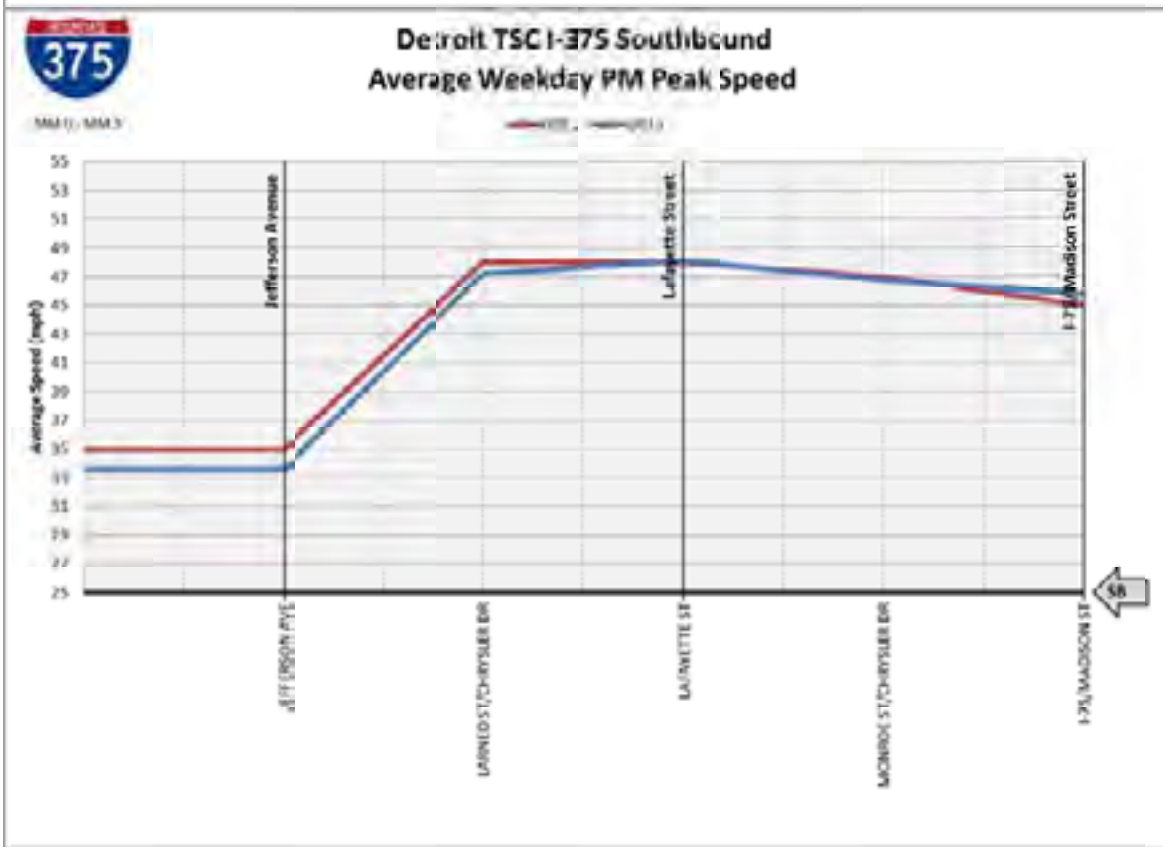

375
Detroit TSC I-375 Southbound
Average Weekday PM Peak Speed
Average Speed (mph)
55
53
51
49
47
45
43
41
39
37
35
33
31
29
27
25
Jefferson Avenue
Lafayette Street
SB
JEFFERSON AVE
LAFAYETTE ST

Figure 23

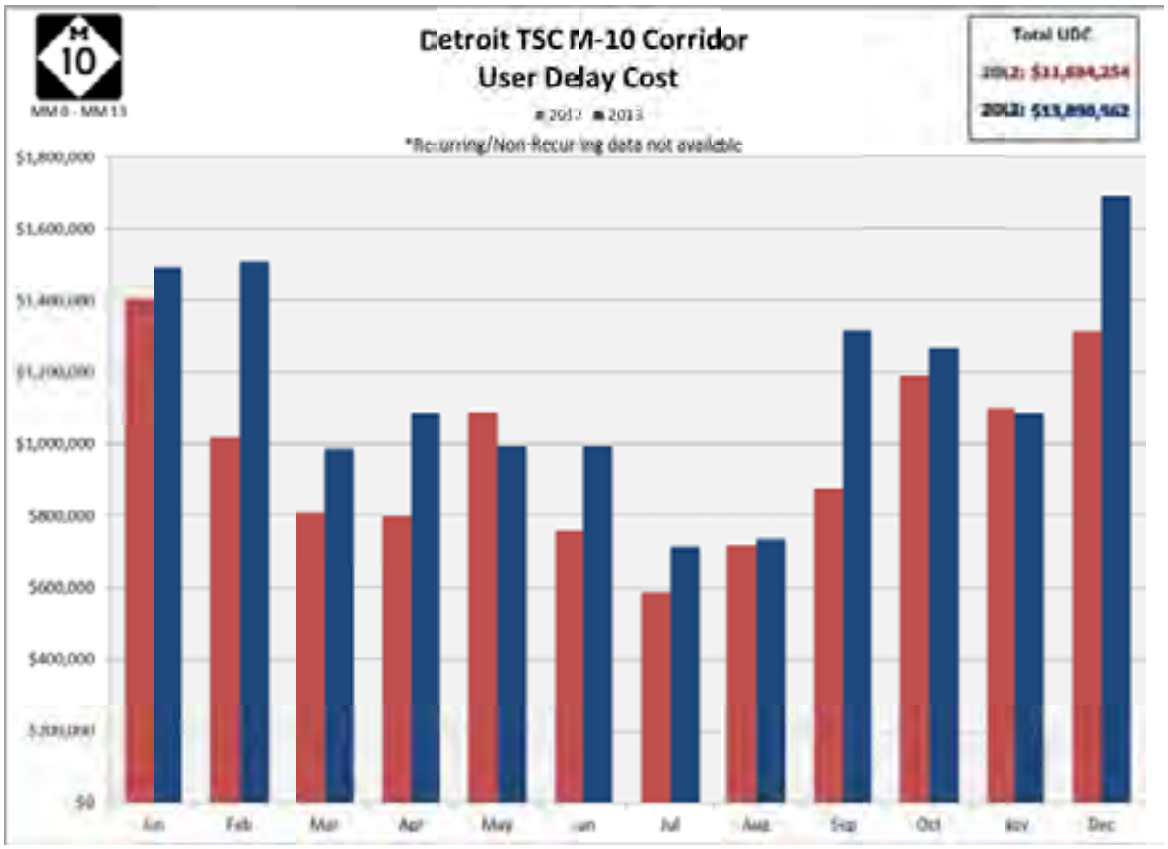
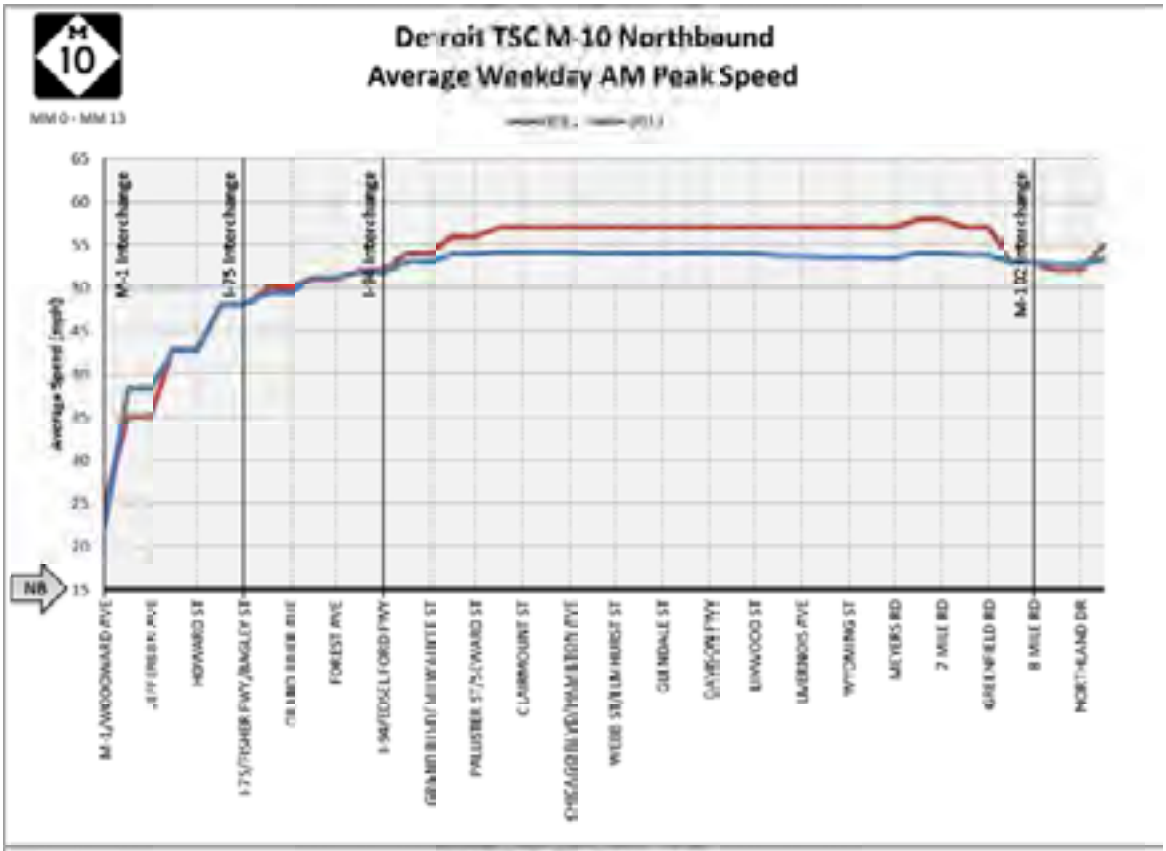

M 10
MM 0 - MM 13
Detroit TSC M-10 Corridor
User Delay Cost
2012 2013
*Recurring/Non-Recurring data not available
Total UDC
$1,800,000
$1,600,000
$1,000,000
$800,000
$600,000
$400,000
$0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

Figure 24


Detroit TSC M-10 Northbound
Average Weekday AM Peak Speed
M-1 Interchange
I-75 Interchange
I-94 Interchange
M-102 Interchange
NB

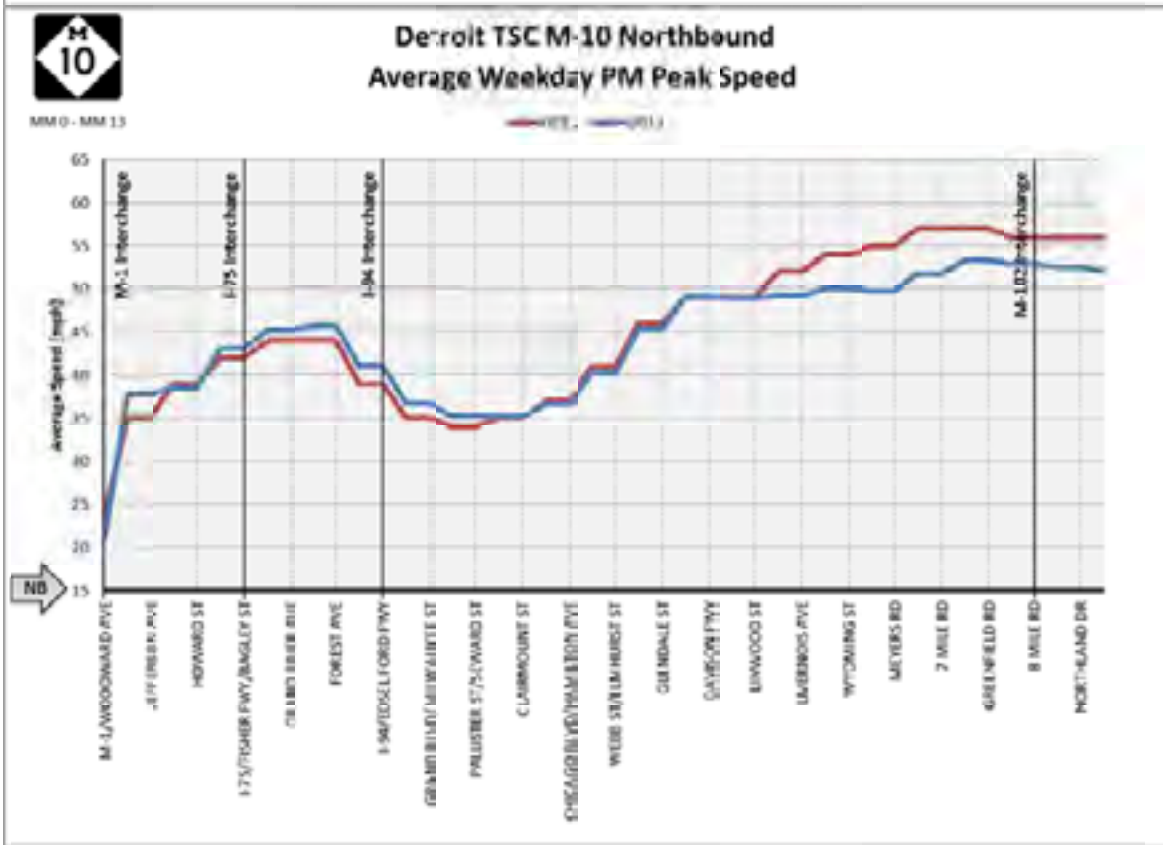
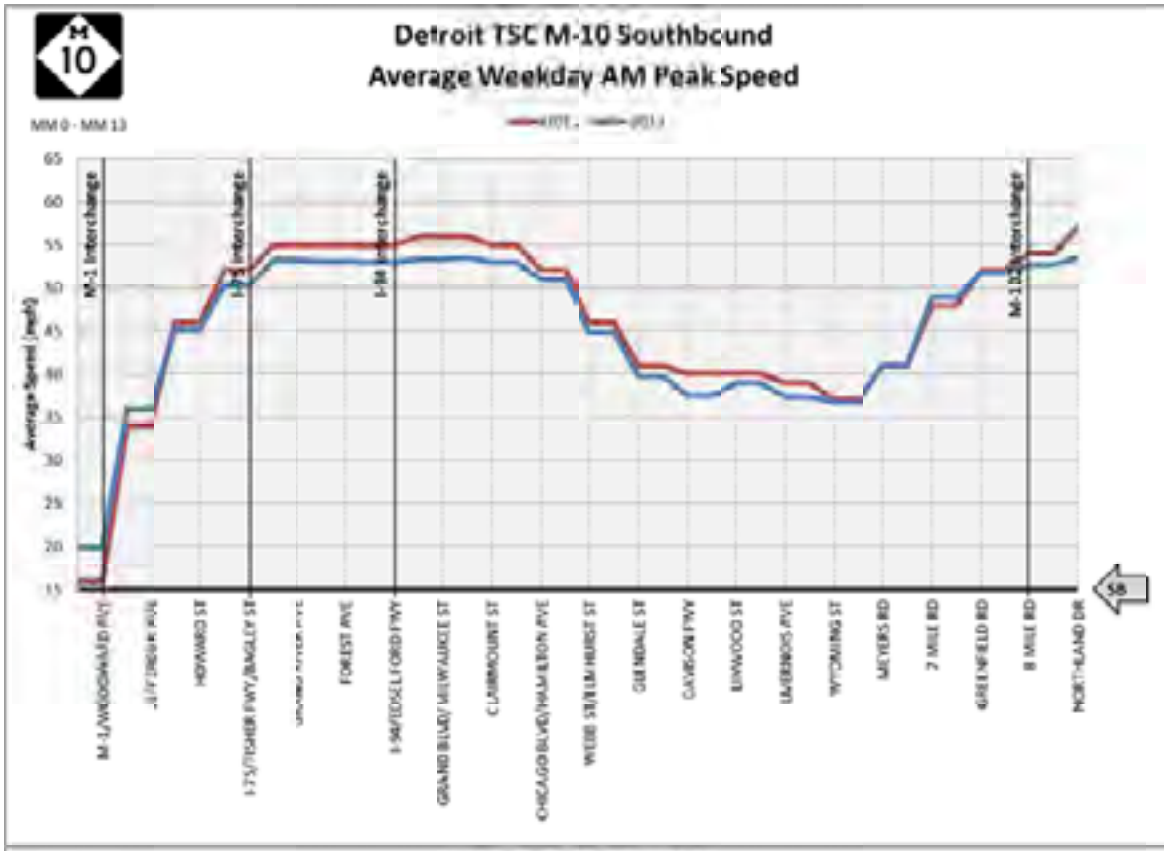

Detroit TSC M-10 Northbound
Average Weekday PM Peak Speed
M-1 Interchange
I-75 Interchange
I-94 Interchange
M-102 Interchange
NB

Figure 25


Detroit TSC M-10 Southbound
Average Weekday AM Peak Speed
MM 0 - MM 13
Average Speed (mph)
M-1 Interchange
I-75 Interchange
I-94 Interchange
M-102 Interchange
NORTHLAND DR

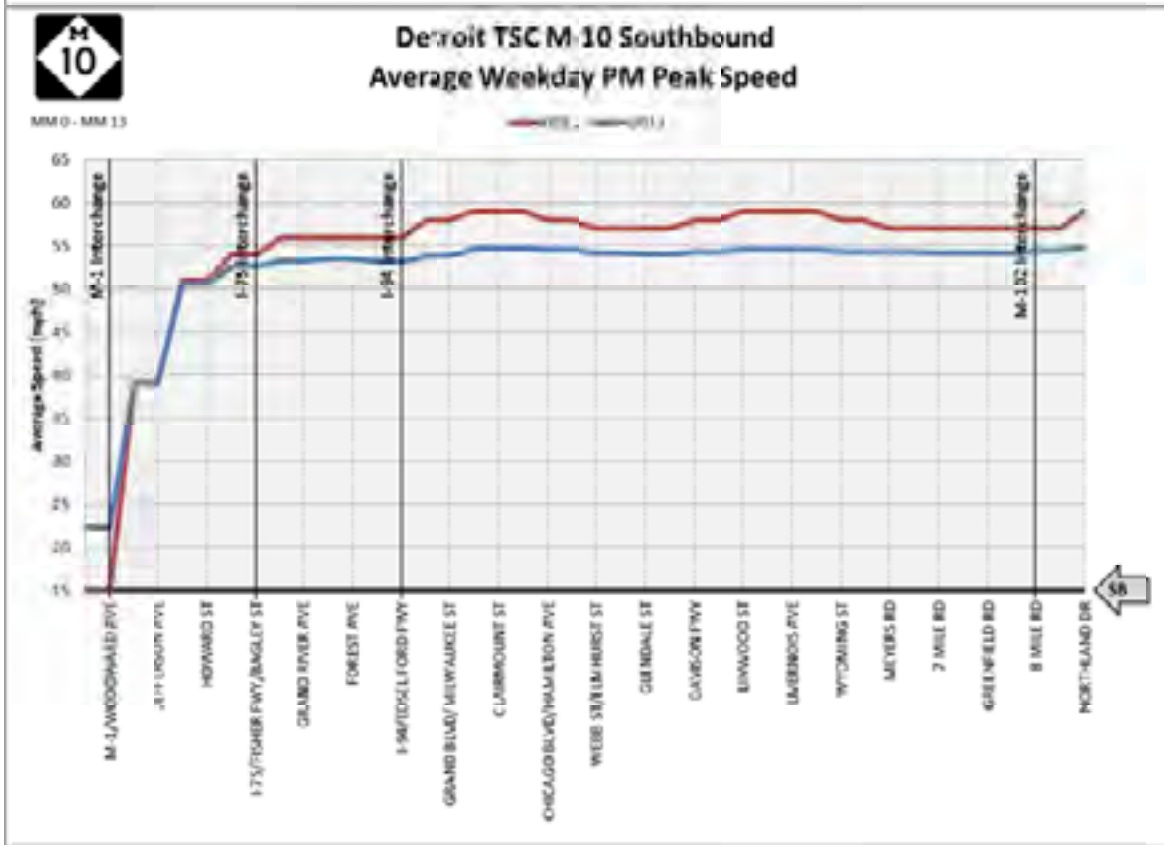
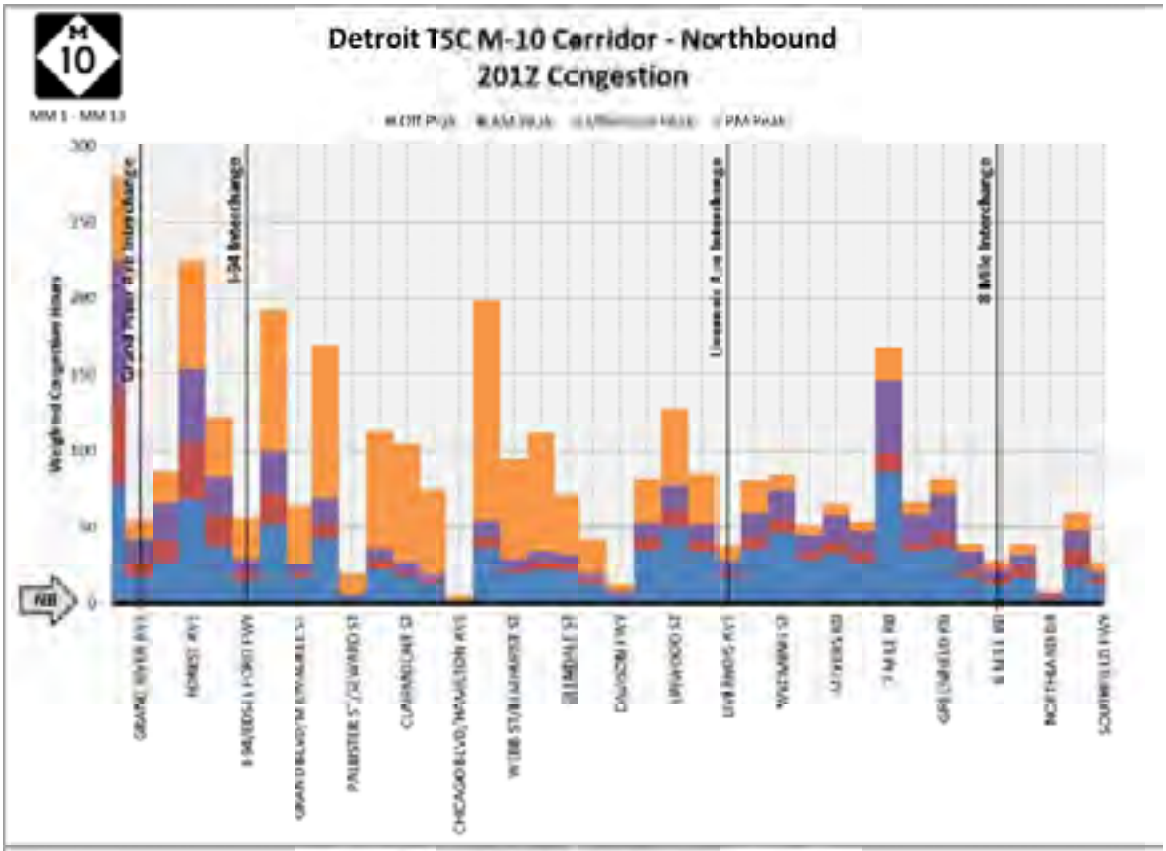

Detroit TSC M-10 Southbound
Average Weekday PM Peak Speed
MM 0 - MM 13
Average Speed (mph)
M-1 Interchange
I-75 Interchange
I-94 Interchange
M-102 Interchange
NORTHLAND DR

Figure 26


M 10
MM 1 - MM 13
Detroit TSC M-10 Corridor - Northbound
2012 Congestion
Weighted Congestion Hours
NB
Grand River Ave Interchange
I-94 Interchange
Livernois Ave Interchange
8 Mile Interchange

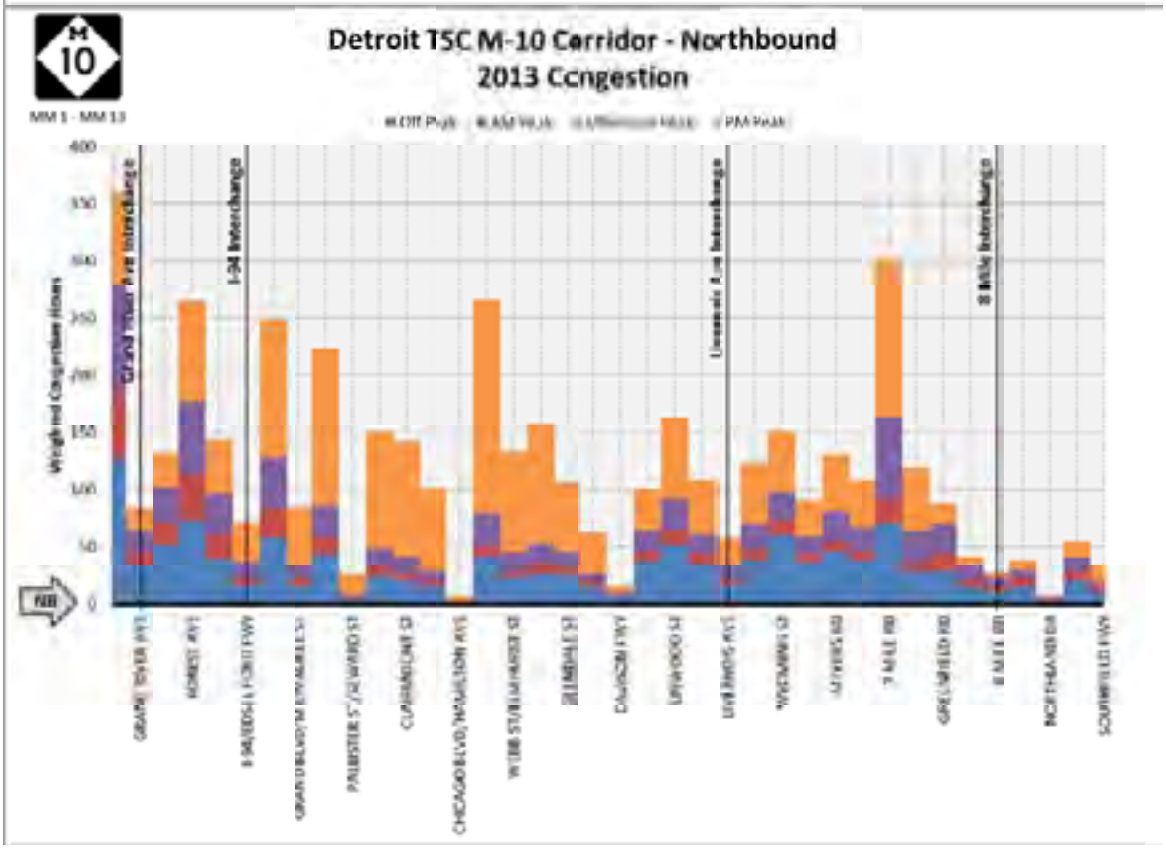
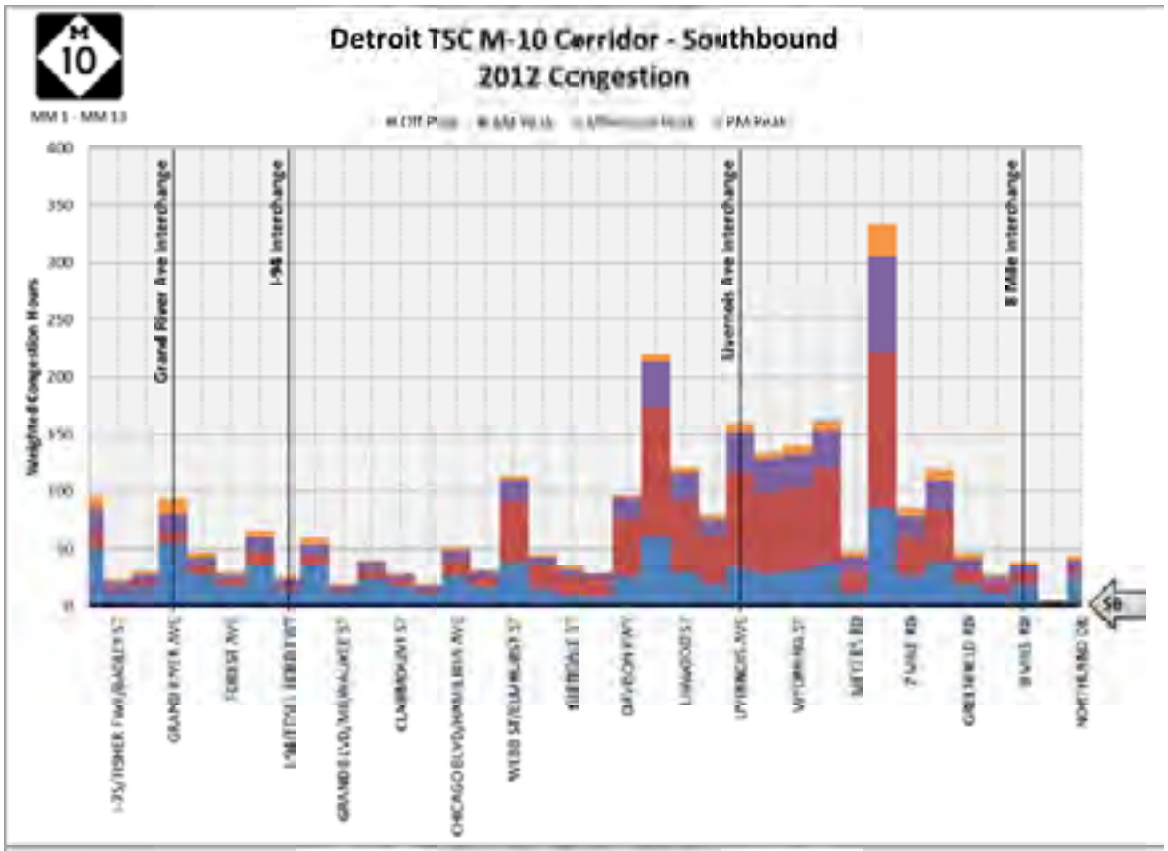

M 10
MM 1 - MM 13
Detroit TSC M-10 Corridor - Northbound
2013 Congestion
Weighted Congestion Hours
NB
Grand River Ave Interchange
I-94 Interchange
Livernois Ave Interchange
8 Mile Interchange

Figure 27


M 10
MM 1 - MM 13
Detroit TSC M-10 Corridor - Southbound
2012 Congestion
Grand River Ave interchange
I-96 interchange
Livernois Ave interchange
8 Mile interchange
SB

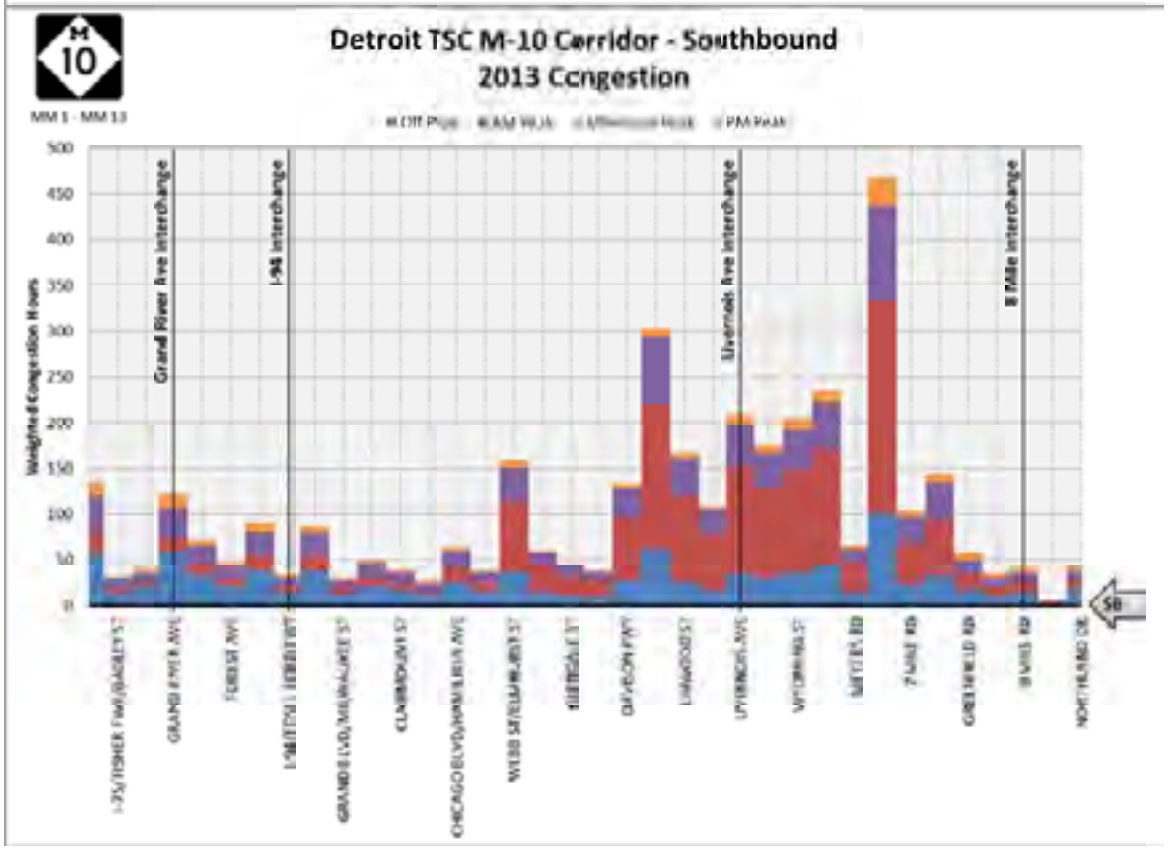

M 10
MM 1 - MM 13
Detroit TSC M-10 Corridor - Southbound
2013 Congestion
Grand River Ave interchange
I-96 interchange
Livernois Ave interchange
8 Mile interchange
SB

Figure 28

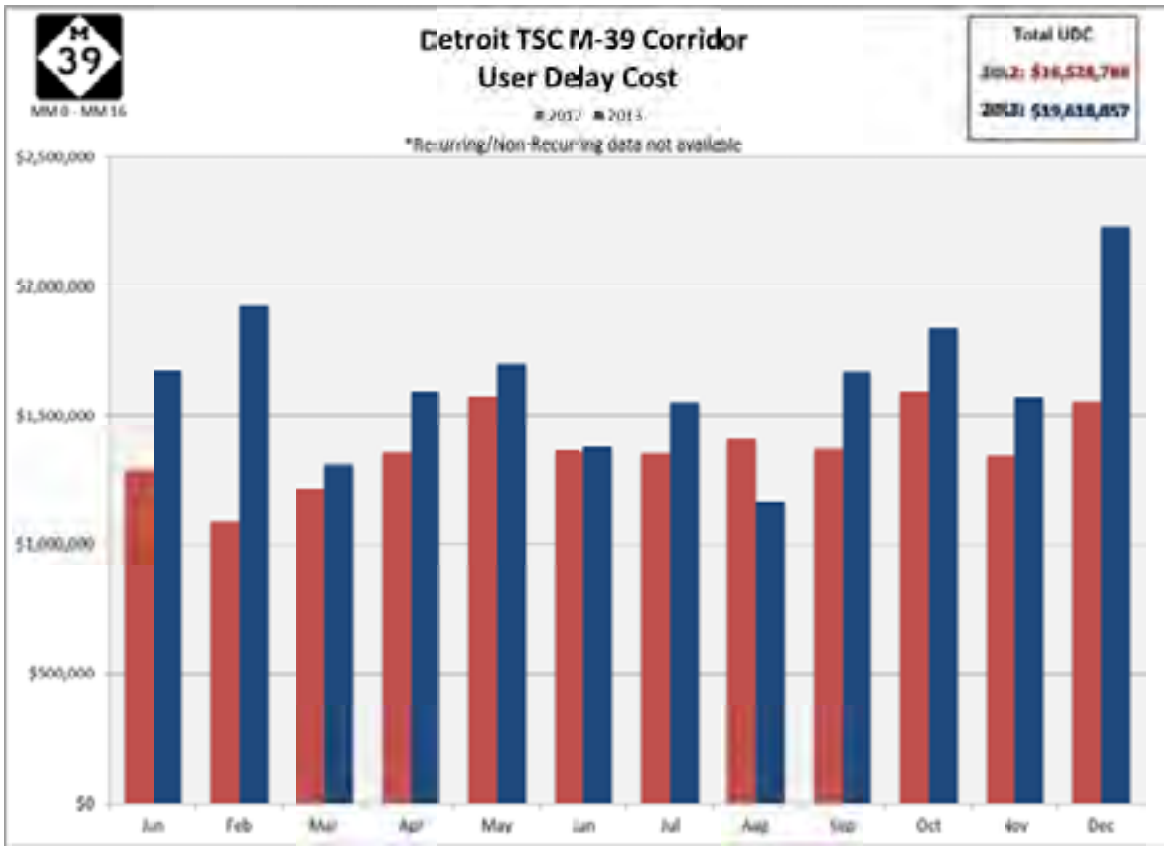
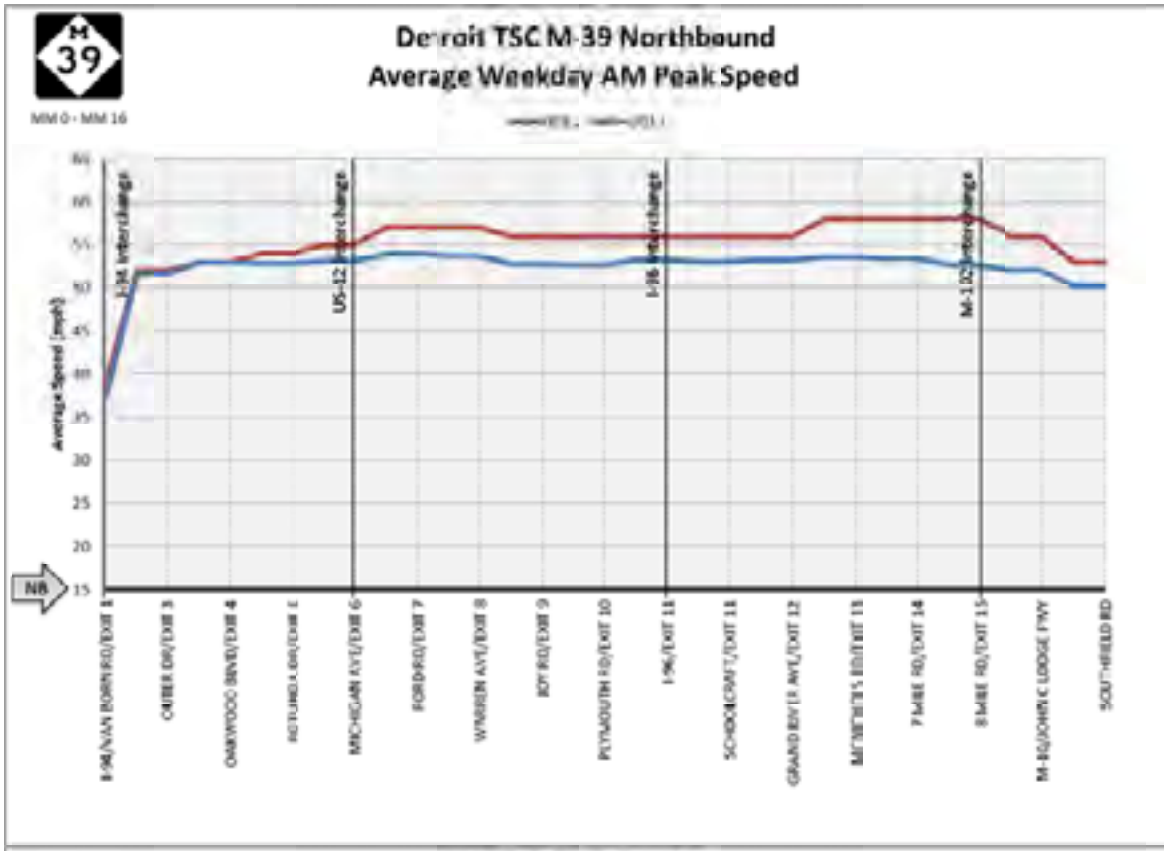

39
MM 0 - MM 16
Detroit TSC M-39 Corridor
User Delay Cost
*Recurring/Non-Recurring data not available
Total UDC
$2,500,000
$2,000,000
$1,500,000
$1,000,000
$500,000
$0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

Figure 29


Detroit TSC M-39 Northbound
Average Weekday AM Peak Speed
MM 0 - MM 16
Average Speed (mph)
NB
I-94 Interchange
US-12 Interchange
I-96 Interchange
M-102 Interchange

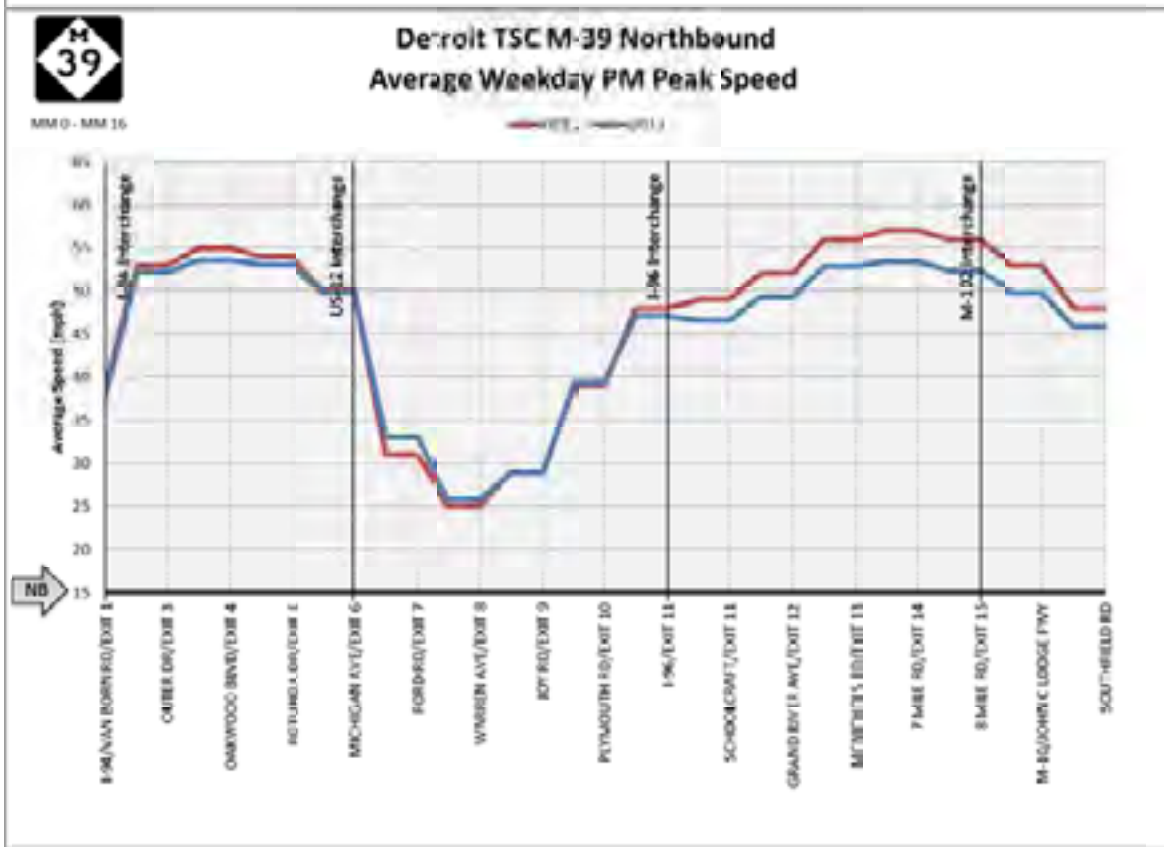
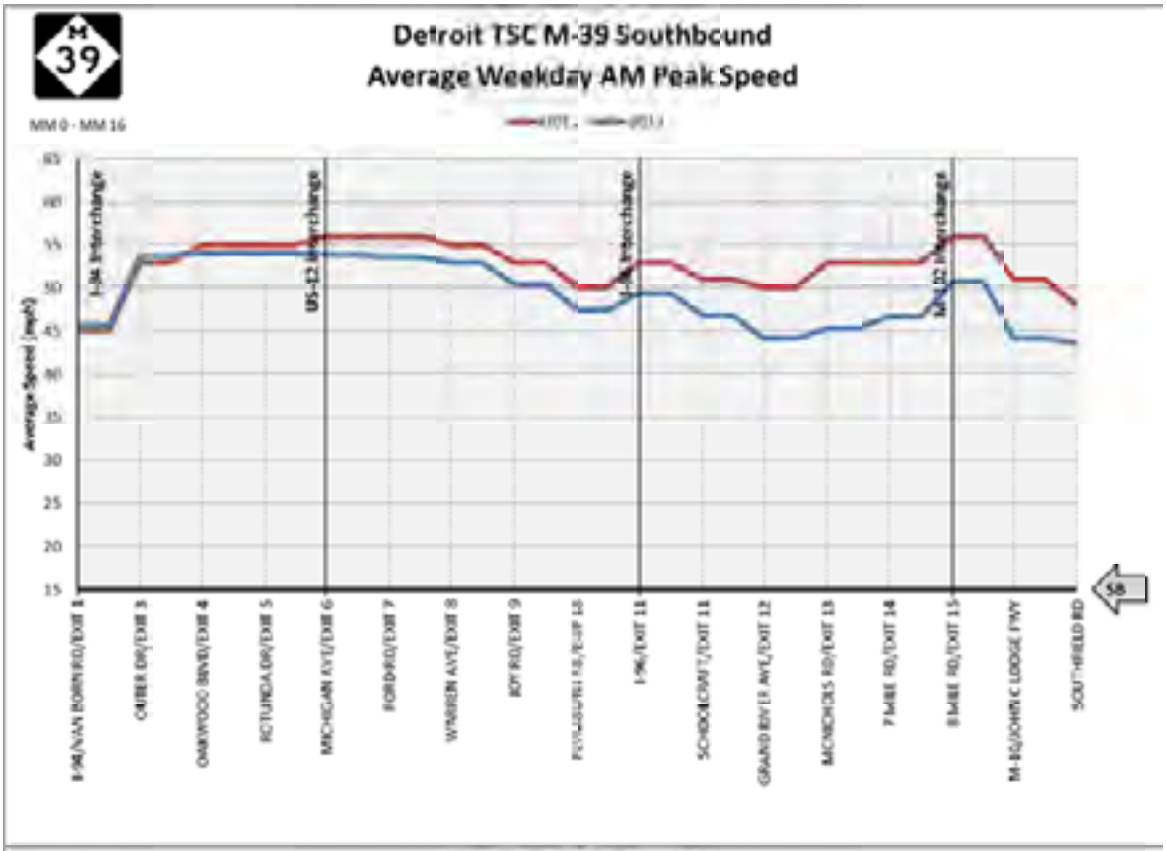

Detroit TSC M-39 Northbound
Average Weekday PM Peak Speed
MM 0 - MM 16
Average Speed (mph)
NB
I-94 Interchange
US-12 Interchange
I-96 Interchange
M-102 Interchange

Figure 30


M 39
Detroit TSC M-39 Southbound
Average Weekday AM Peak Speed
MM 0 - MM 16
Average Speed (mph)
I-94 Interchange
US-12 Interchange
I-96 Interchange
M-102 Interchange
SB

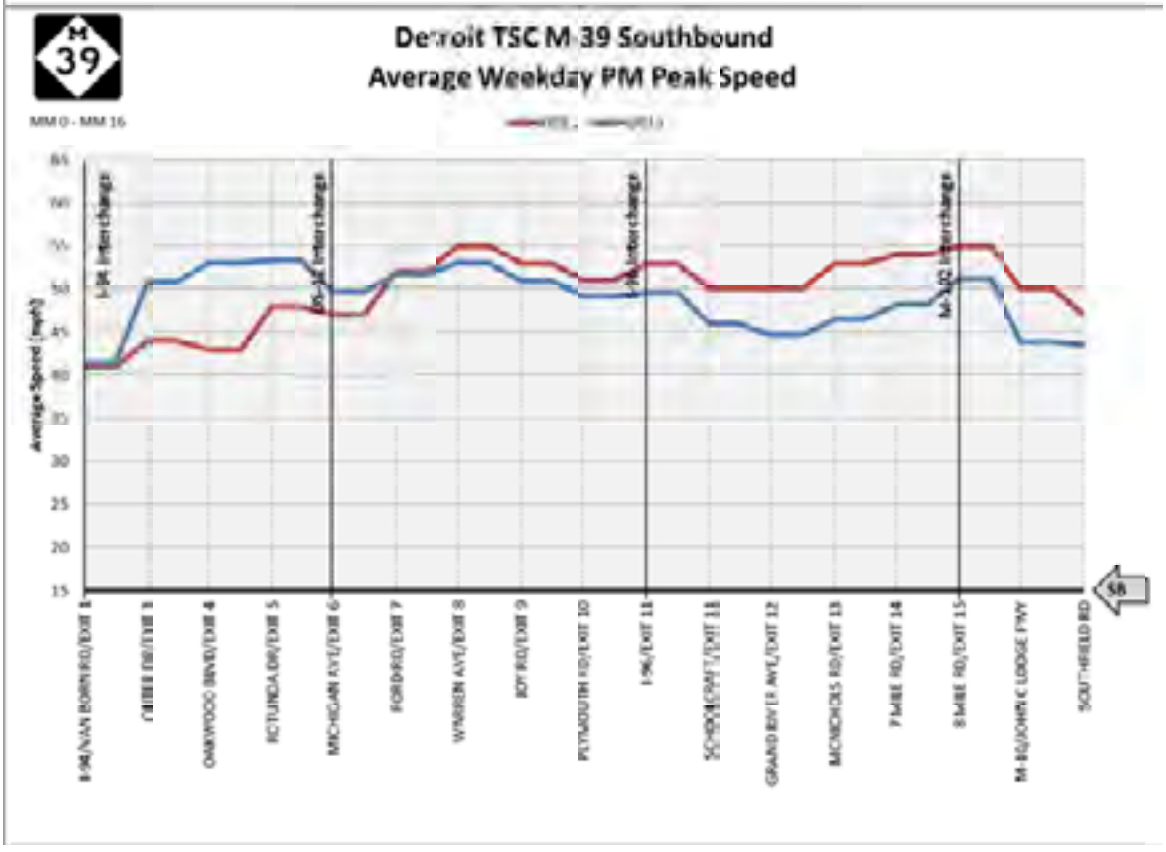
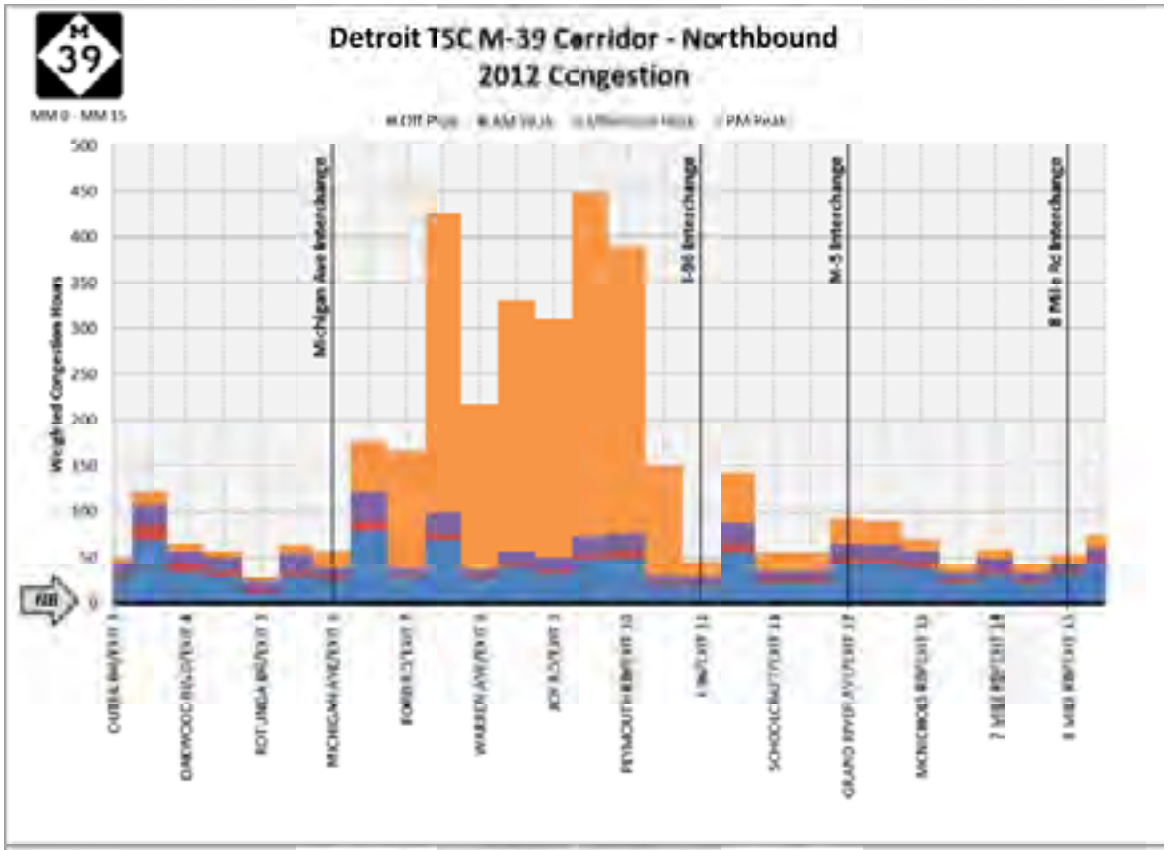

M 39
Detroit TSC M-39 Southbound
Average Weekday PM Peak Speed
MM 0 - MM 16
Average Speed (mph)
I-94 Interchange
US-12 Interchange
I-96 Interchange
M-102 Interchange
SB

Figure 31


M 39
Detroit TSC M-39 Corridor - Northbound
2012 Congestion
MM 0 - MM 15
Weighted Congestion Hours
Michigan Ave Interchange
I-96 Interchange
M-5 Interchange
8 Mile Rd Interchange

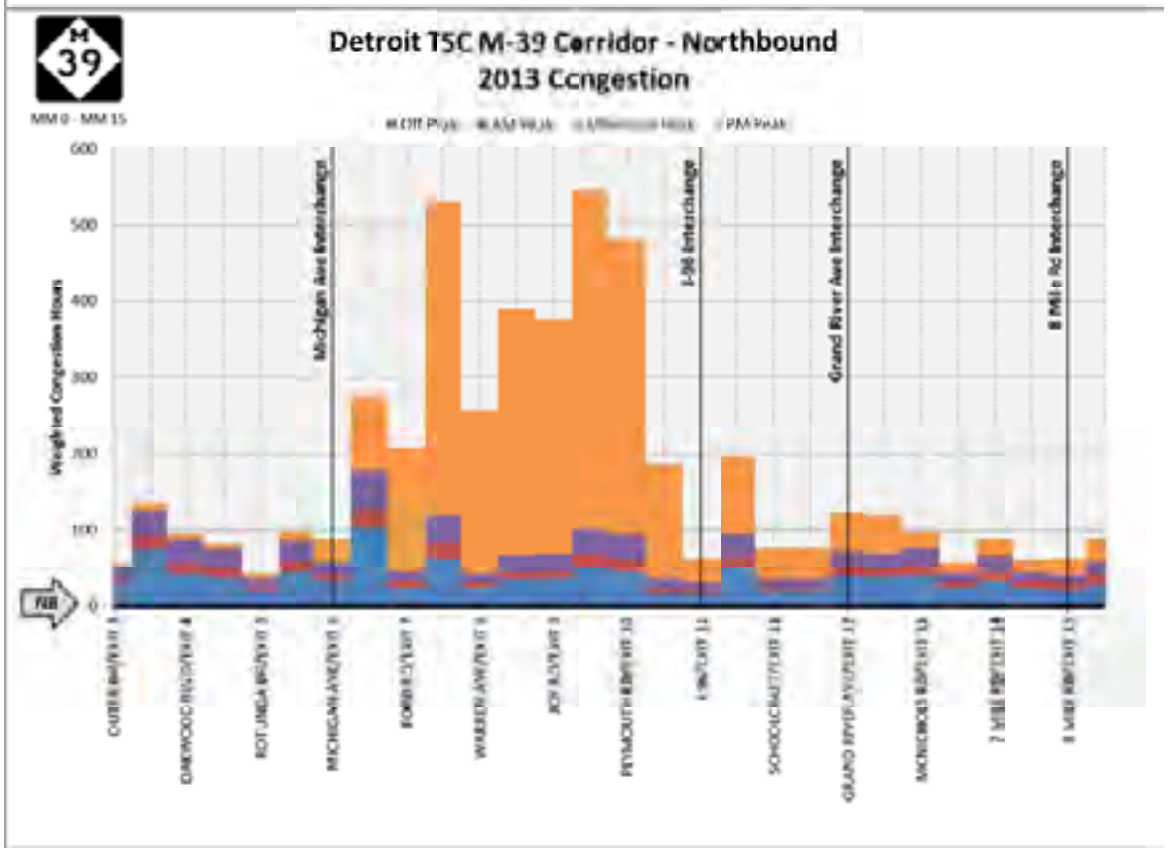
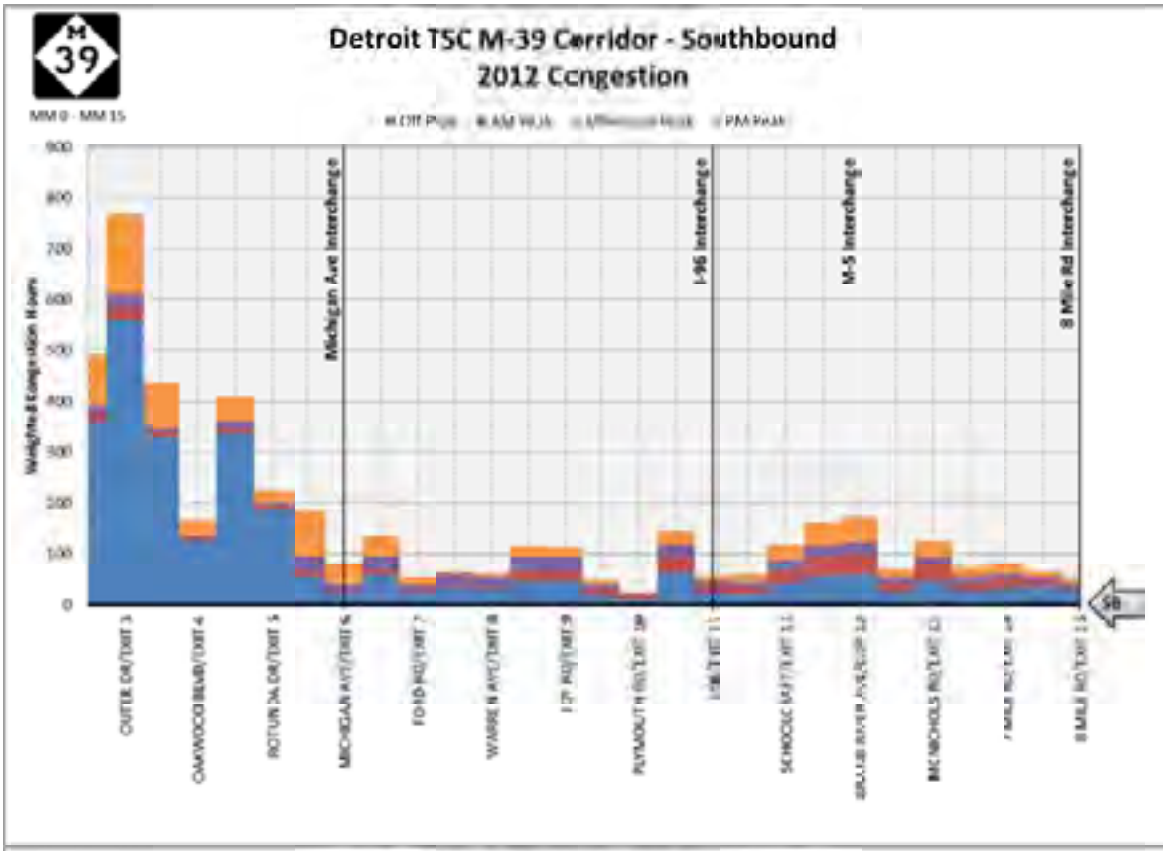

M 39
Detroit TSC M-39 Corridor - Northbound
2013 Congestion
MM 0 - MM 15
Weighted Congestion Hours
Michigan Ave Interchange
I-96 Interchange
Grand River Ave Interchange
8 Mile Rd Interchange

Figure 32


Detroit TSC M-39 Corridor - Southbound
2012 Congestion
MM 0 - MM 15
Michigan Ave Interchange
I-96 Interchange
M-5 Interchange
8 Mile Rd Interchange

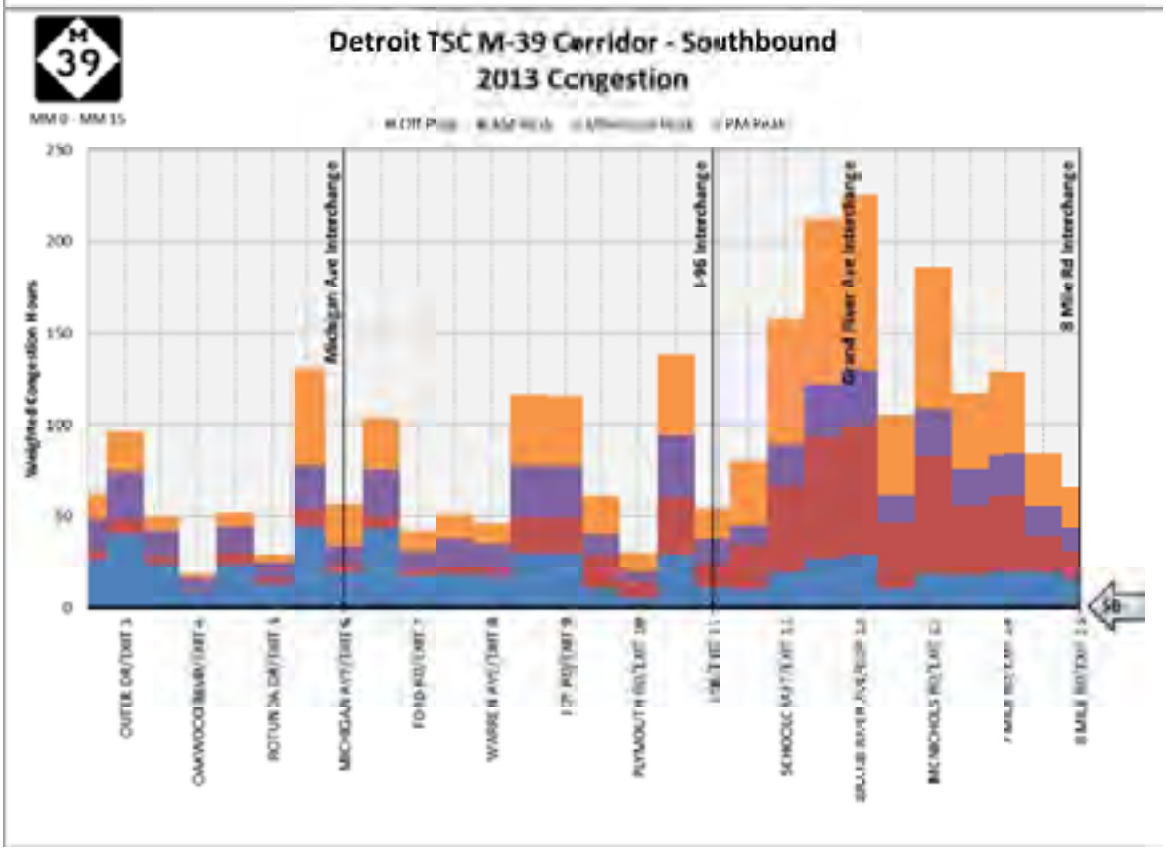
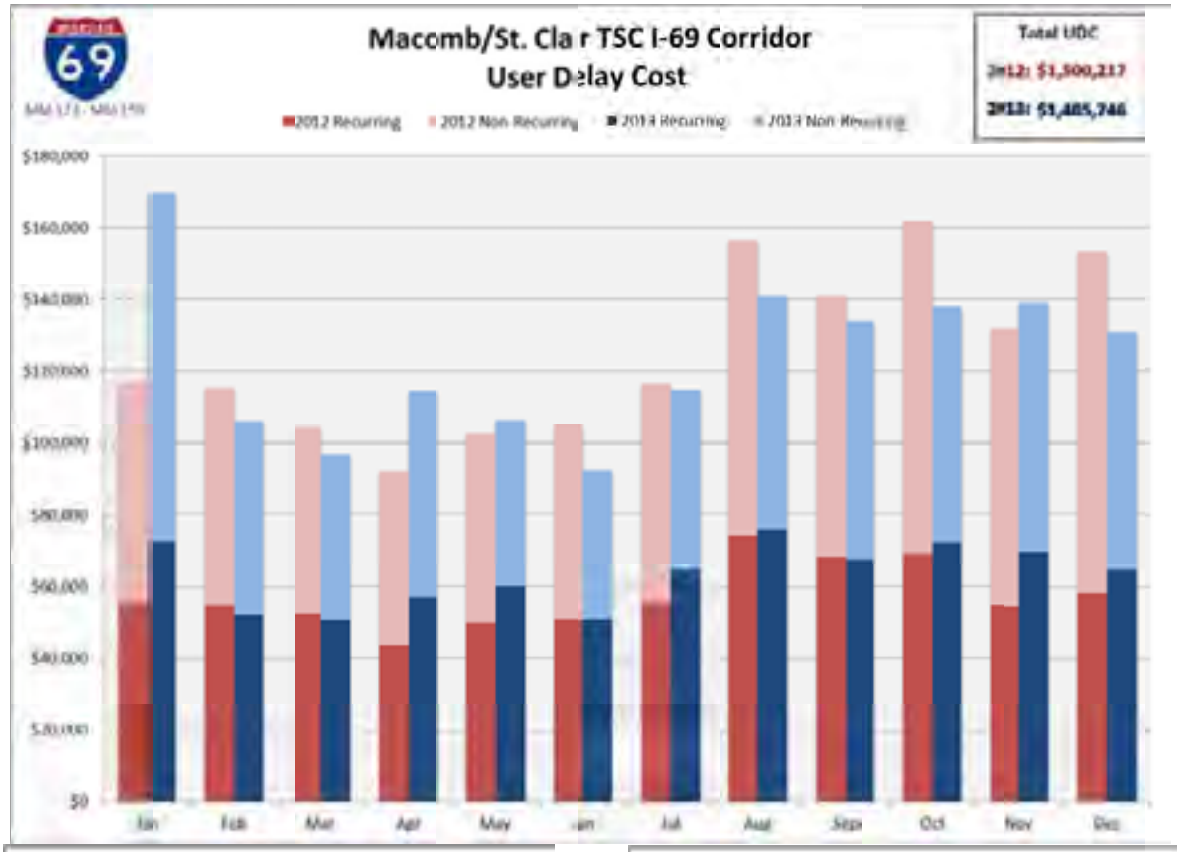
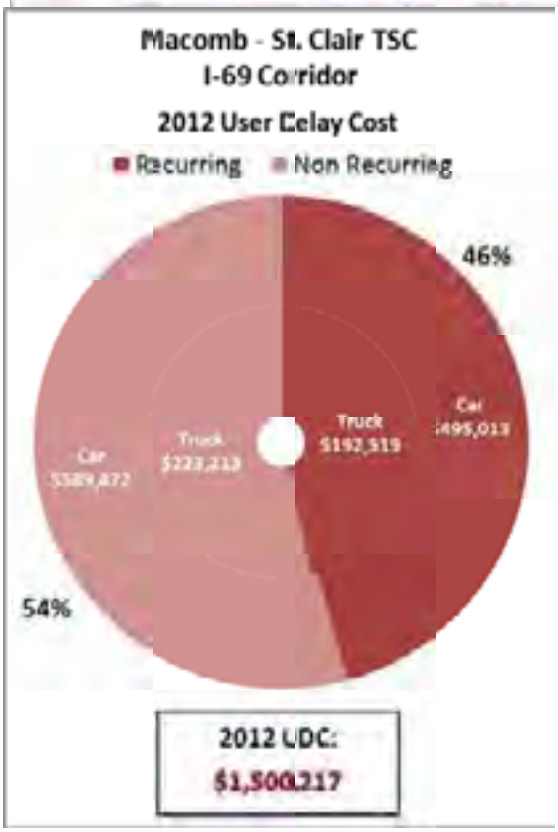

Detroit TSC M-39 Corridor - Southbound
2013 Congestion
MM 0 - MM 15
Michigan Ave Interchange
I-96 Interchange
Grand River Ave Interchange
8 Mile Rd Interchange

Figure 33


69
Macomb/St. Cla r TSC I-69 Corridor
User Delay Cost
Total UDC
2012 Recurring
2012 Non Recurring
$180,000
$160,000
$140,000
$120,000
$100,000
$80,000
$60,000
$40,000
$20,000
$0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec


Macomb - St. Clair TSC
I-69 Corridor
2012 User Delay Cost
Recurring
Non Recurring
46%
54%
Truck
$192,519
Car
$223,213
2012 UDC:
$1,500,217

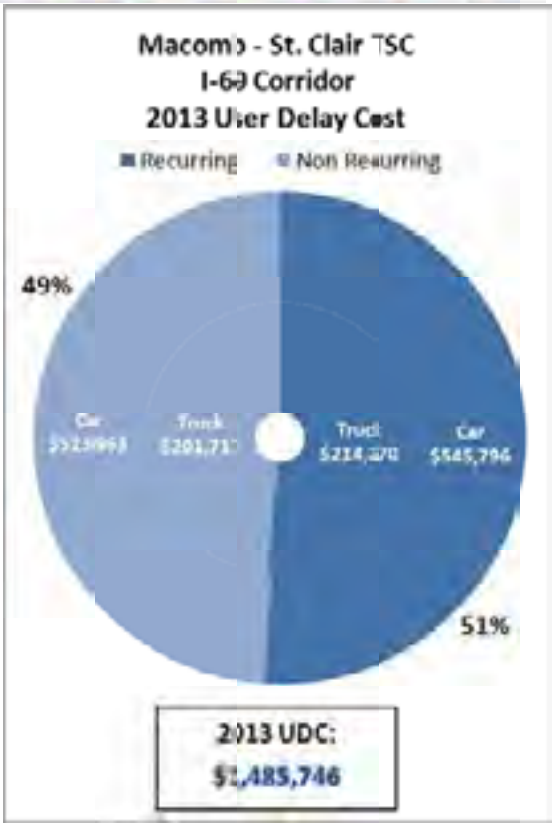
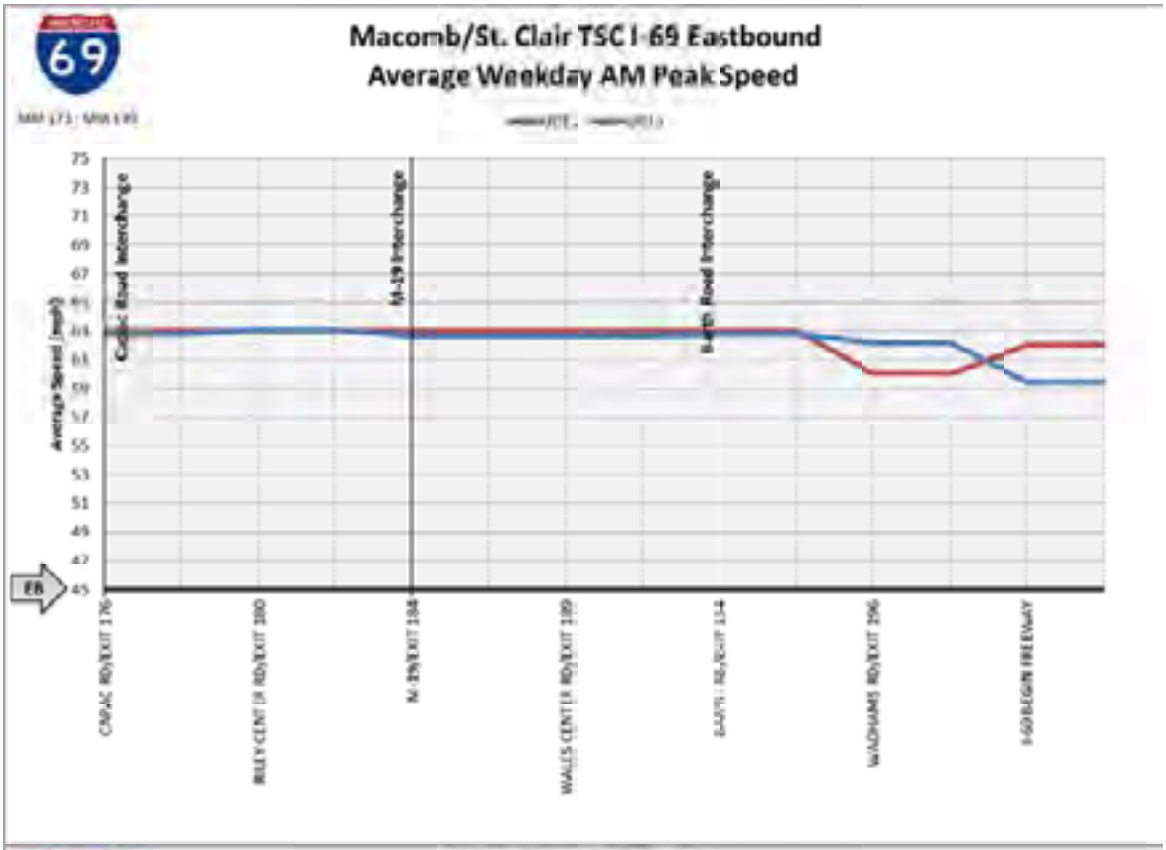

Macomb - St. Clair TSC
I-69 Corridor
2013 User Delay Cost
Recurring
Non Recurring
49%
51%
Truck
Car
$545,796
2013 UDC:
$1,485,746

Figure 34


Macomb/St. Clair TSC I-69 Eastbound
Average Weekday AM Peak Speed
Average Speed (mph)
Capac Road Interchange
M-19 Interchange
Barth Road Interchange
EB
CAPAC RD/EXIT 176
RILEY CENTER RD/EXIT 180
M-19/EXIT 184
WALES CENTER RD/EXIT 189
WADHAMS RD/EXIT 196
I-69 BEGIN FREEWAY

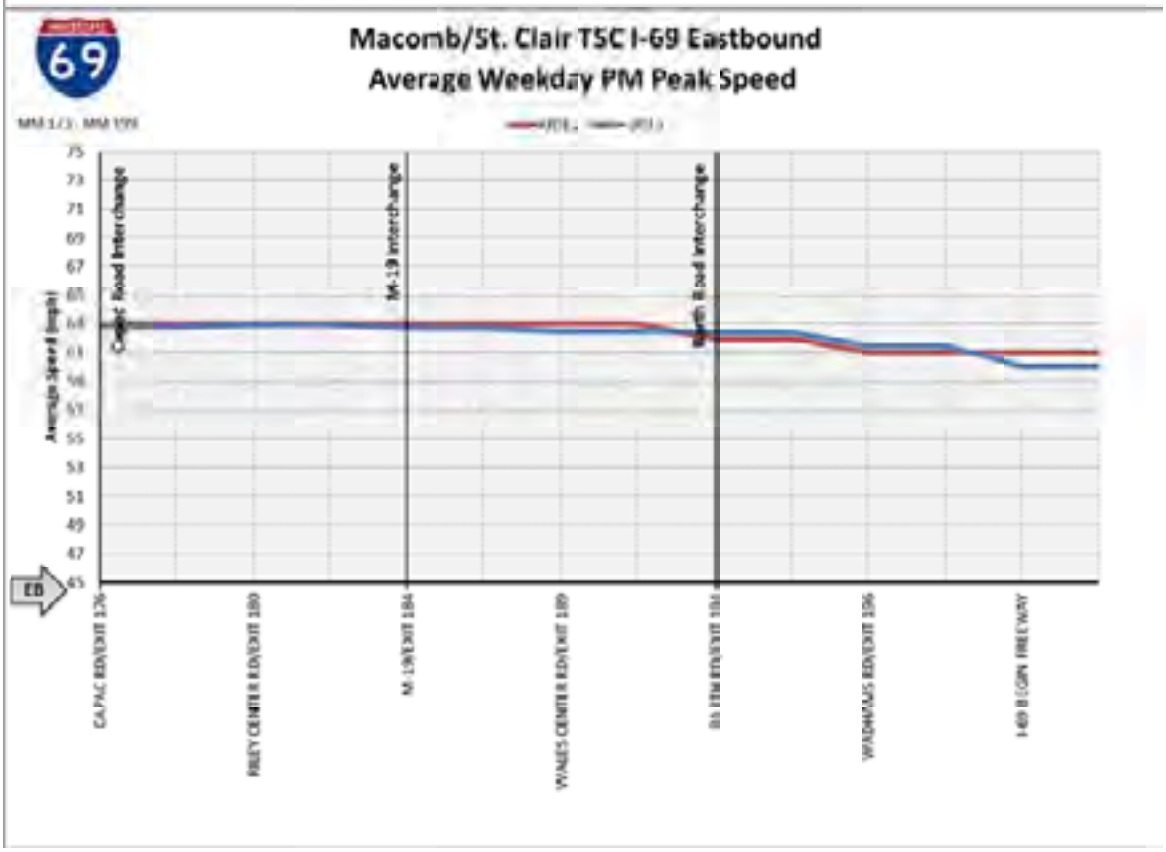
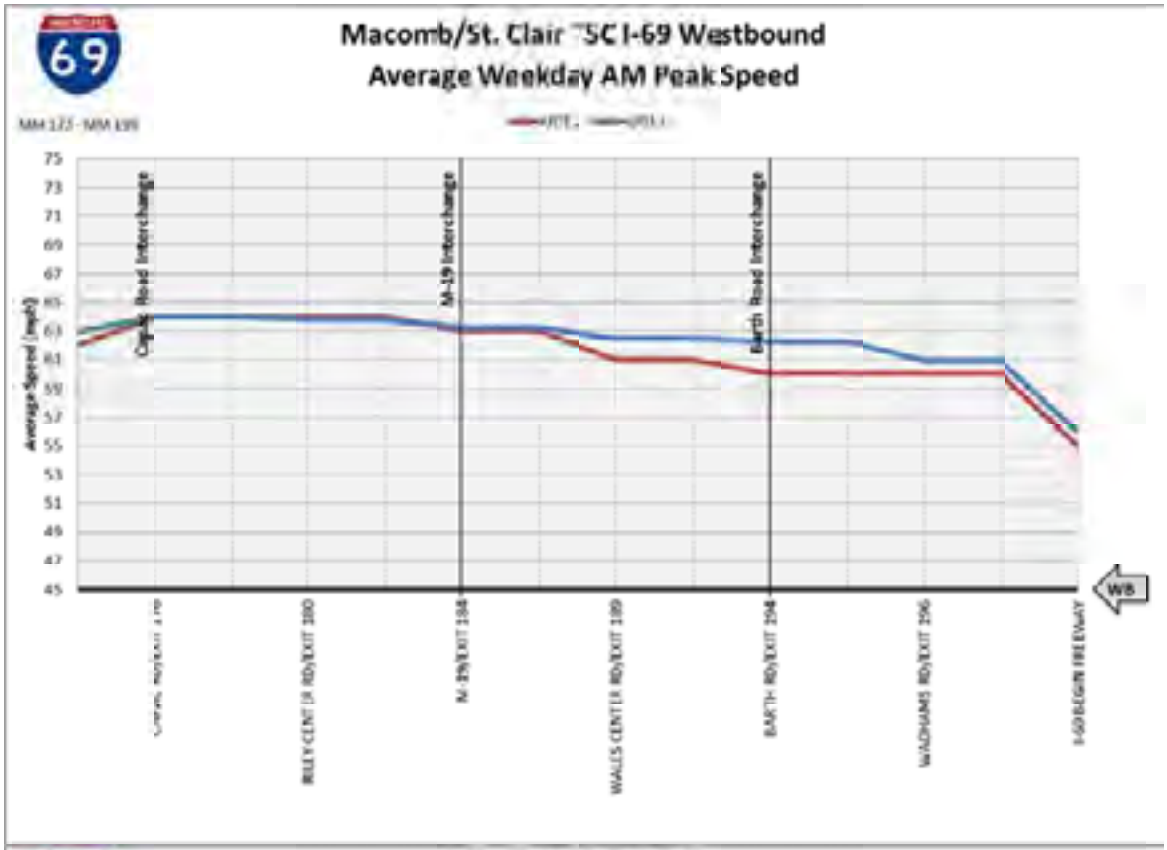

Macomb/St. Clair TSC I-69 Eastbound
Average Weekday PM Peak Speed
Average Speed (mph)
Capac Road Interchange
M-19 Interchange
Barth Road Interchange
EB
CAPAC RD/EXIT 176
RILEY CENTER RD/EXIT 180
M-19/EXIT 184
WALES CENTER RD/EXIT 189
WADHAMS RD/EXIT 196
I-69 BEGIN FREEWAY

Figure 35


69
Macomb/St. Clair TSC I-69 Westbound
Average Weekday AM Peak Speed
Average Speed (mph)
75
73
71
69
67
65
63
61
59
57
55
53
51
49
47
45
Capac Road Interchange
M-19 Interchange
Barth Road Interchange
WB

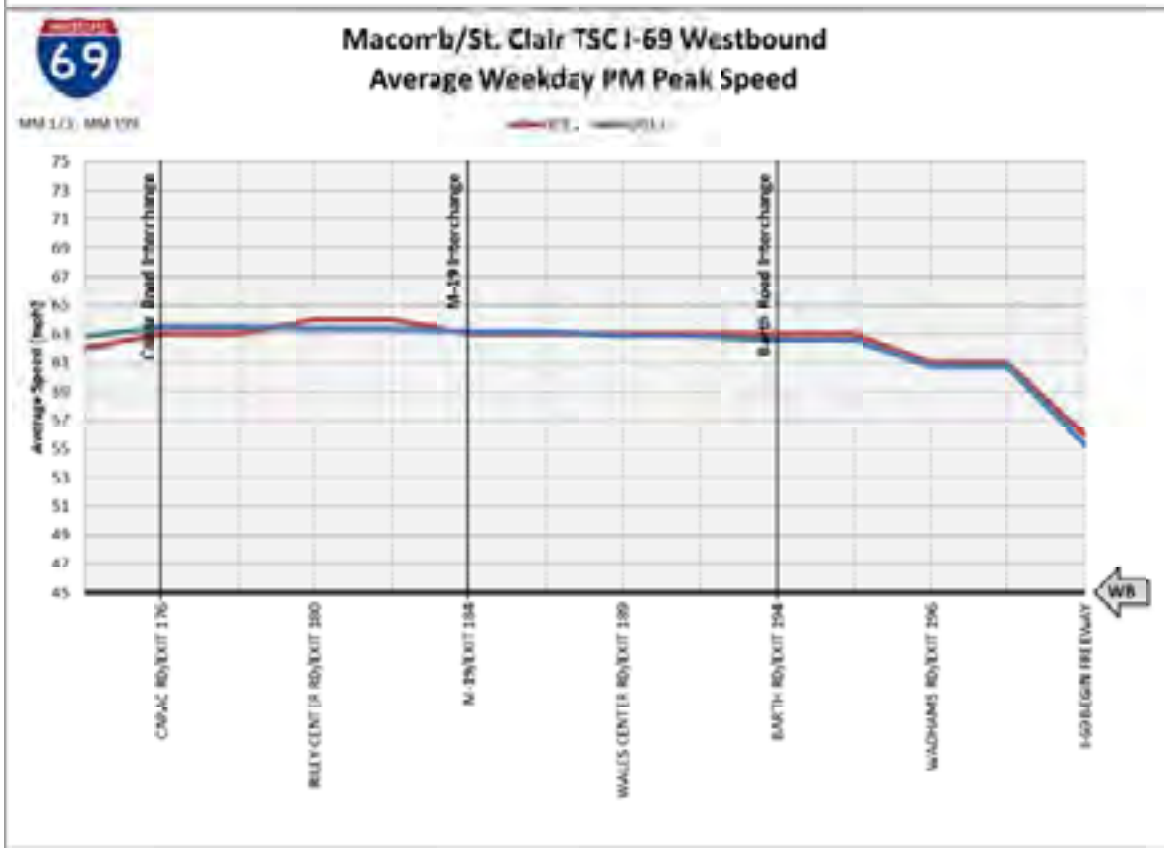
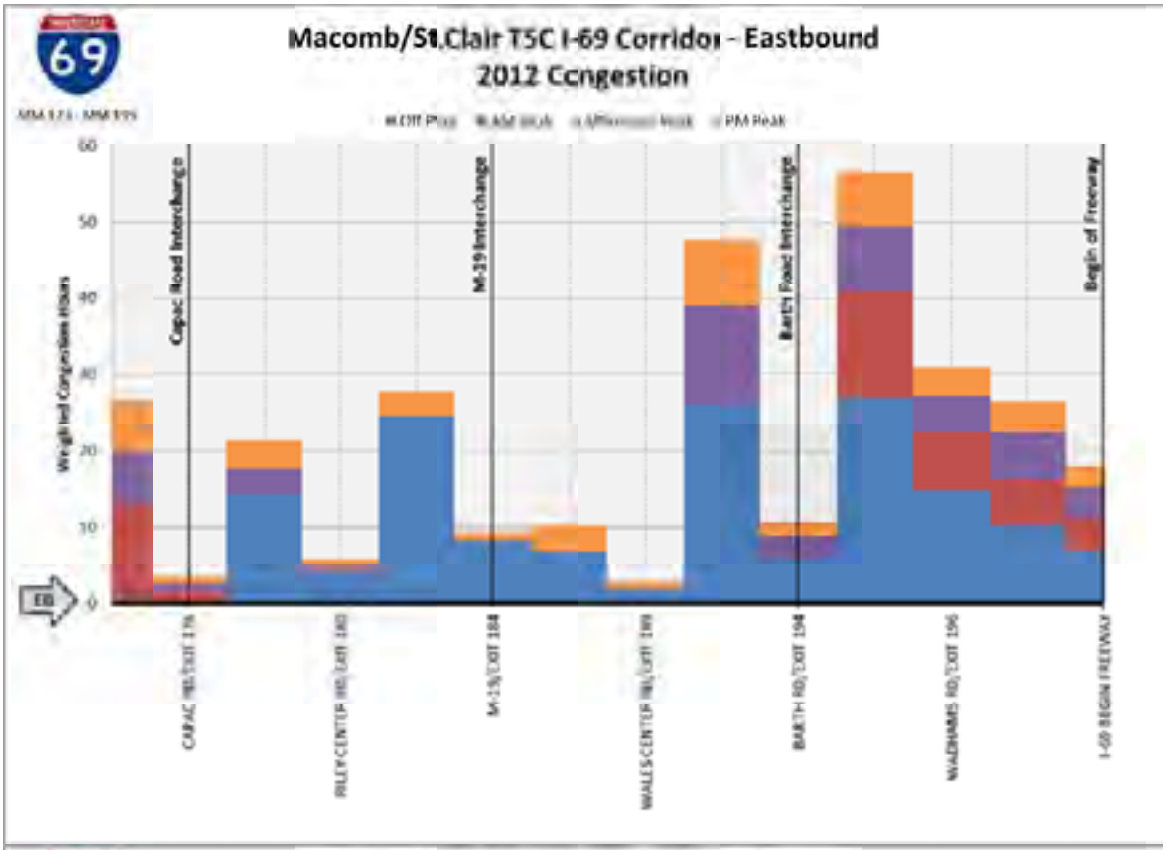

69
Macomb/St. Clair TSC I-69 Westbound
Average Weekday PM Peak Speed
Average Speed (mph)
75
73
71
69
67
65
63
61
59
57
55
53
51
49
47
45
Capac Road Interchange
M-19 Interchange
Barth Road Interchange
WB

Figure 36


69
Macomb/St.Clair TSC I-69 Corridor - Eastbound
2012 Congestion
Weighted Congestion Hours
Capac Road Interchange
M-19 Interchange
Barth Road Interchange
Begin of Freeway

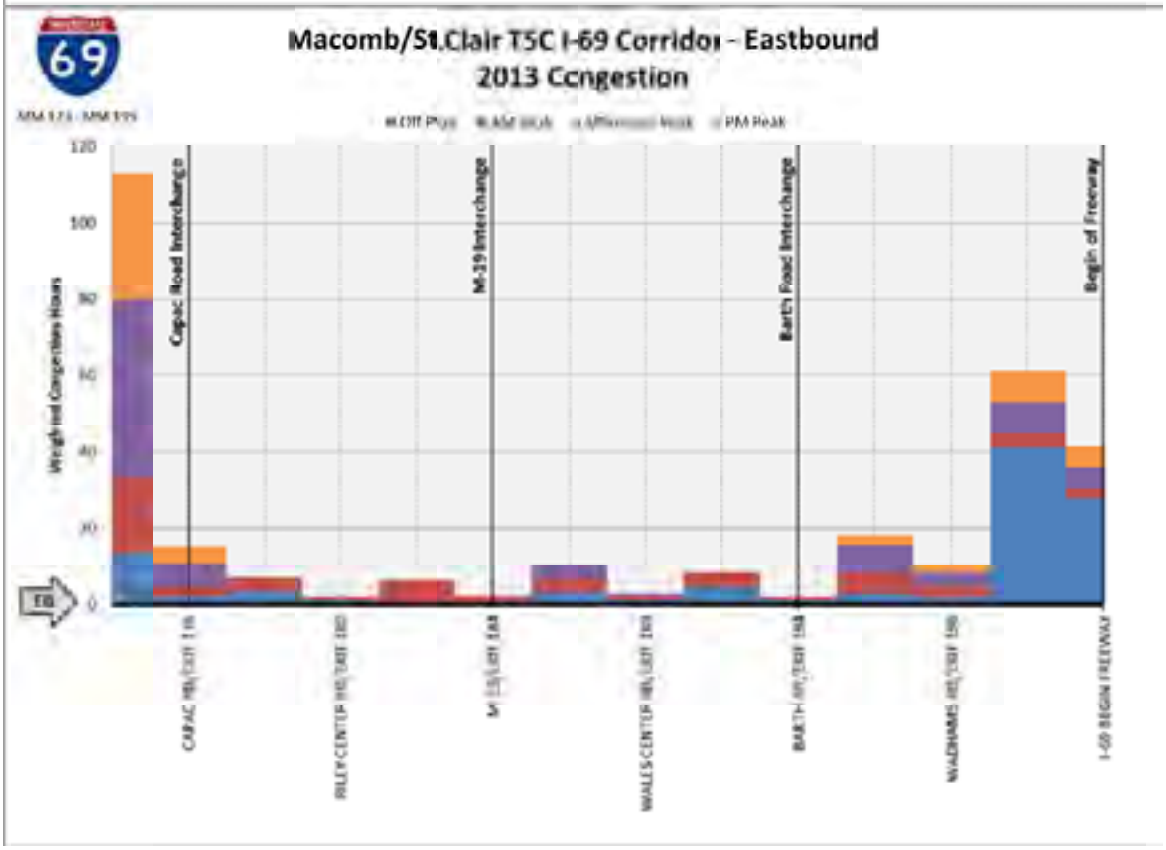
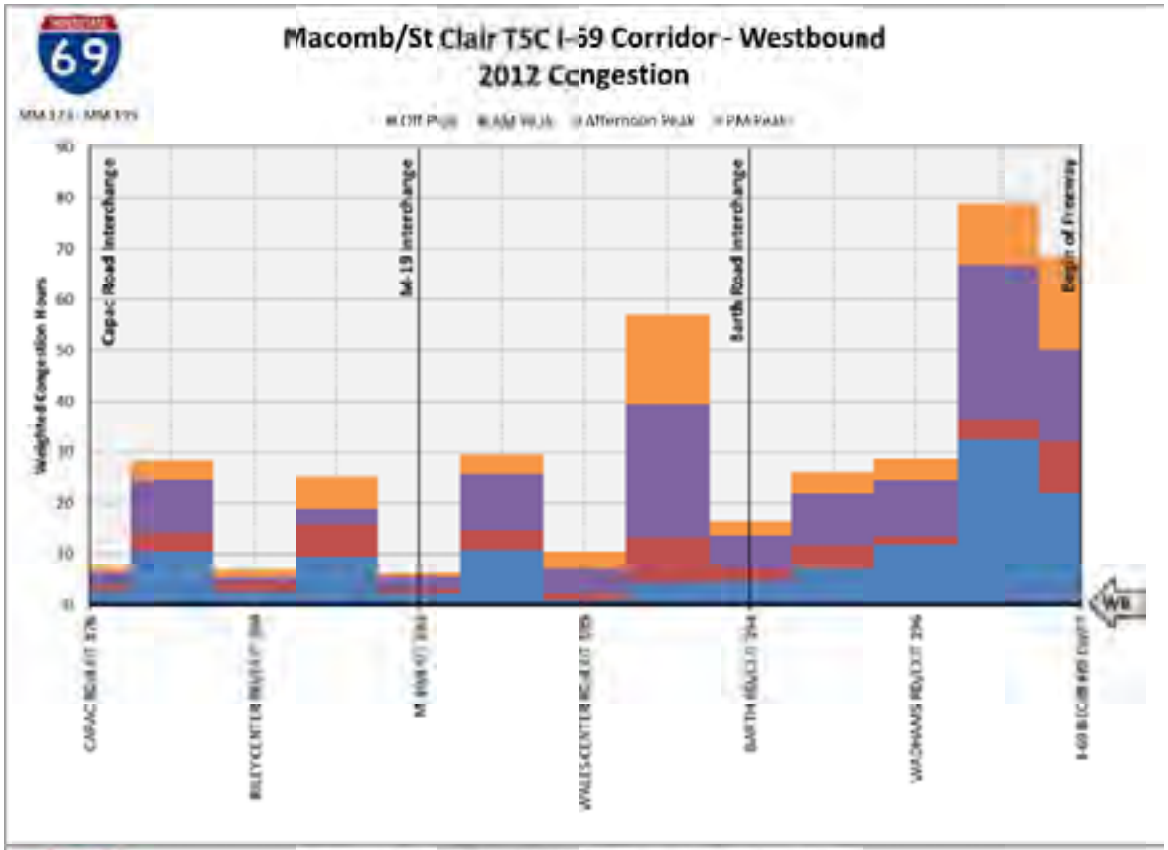

69
Macomb/St.Clair TSC I-69 Corridor - Eastbound
2013 Congestion
Weighted Congestion Hours
Capac Road Interchange
M-19 Interchange
Barth Road Interchange
Begin of Freeway

Figure 37


Macomb/St Clair T5C I-69 Corridor - Westbound
2012 Congestion
Capac Road Interchange
M-19 Interchange
Barth Road Interchange
Begin of Freeway
WB

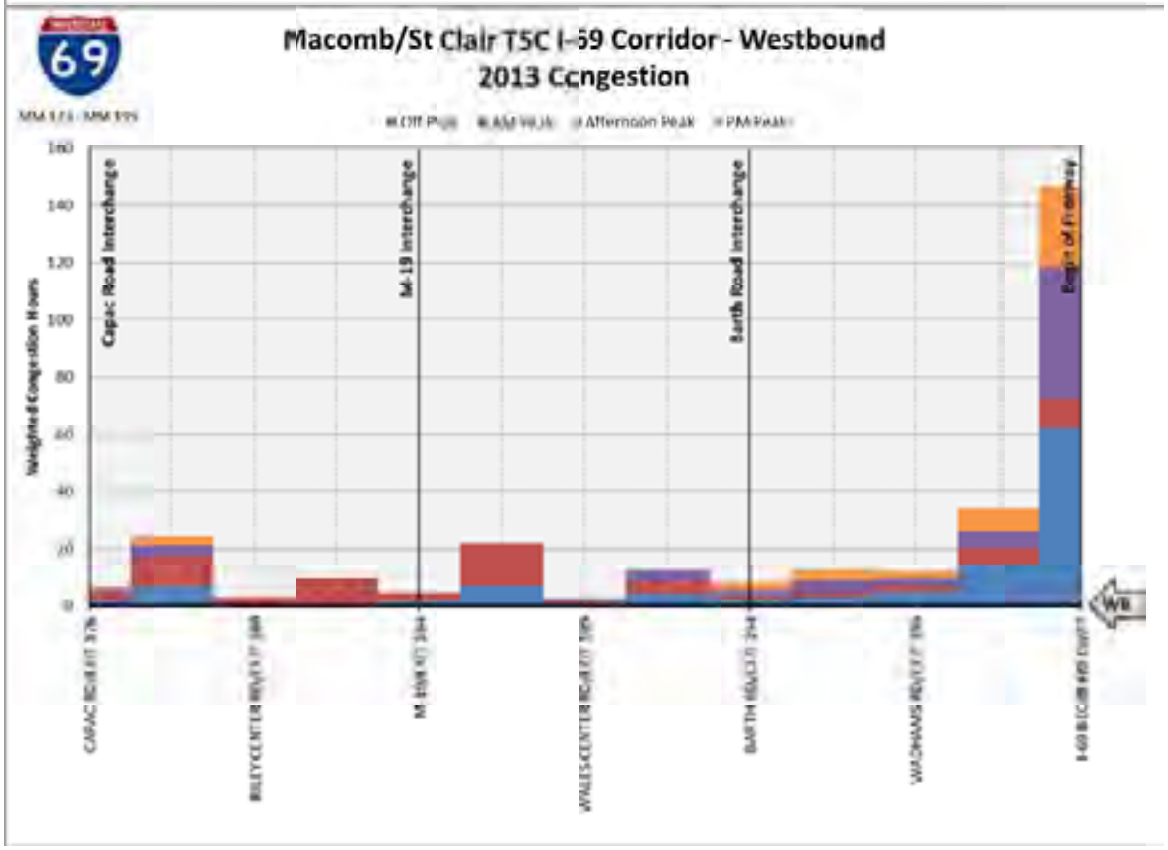

Macomb/St Clair T5C I-69 Corridor - Westbound
2013 Congestion
Capac Road Interchange
M-19 Interchange
Barth Road Interchange
Begin of Freeway
WB

Figure38

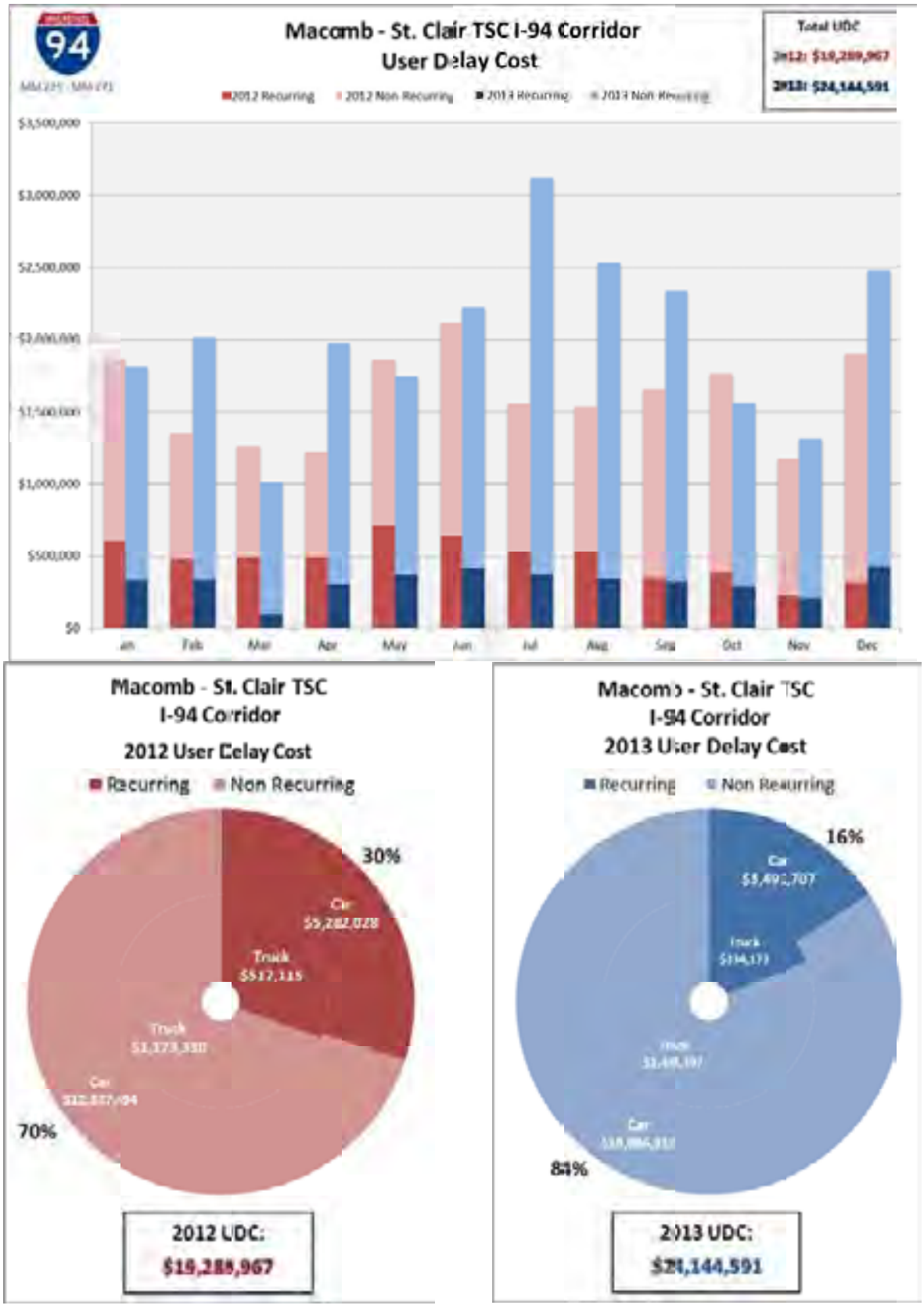
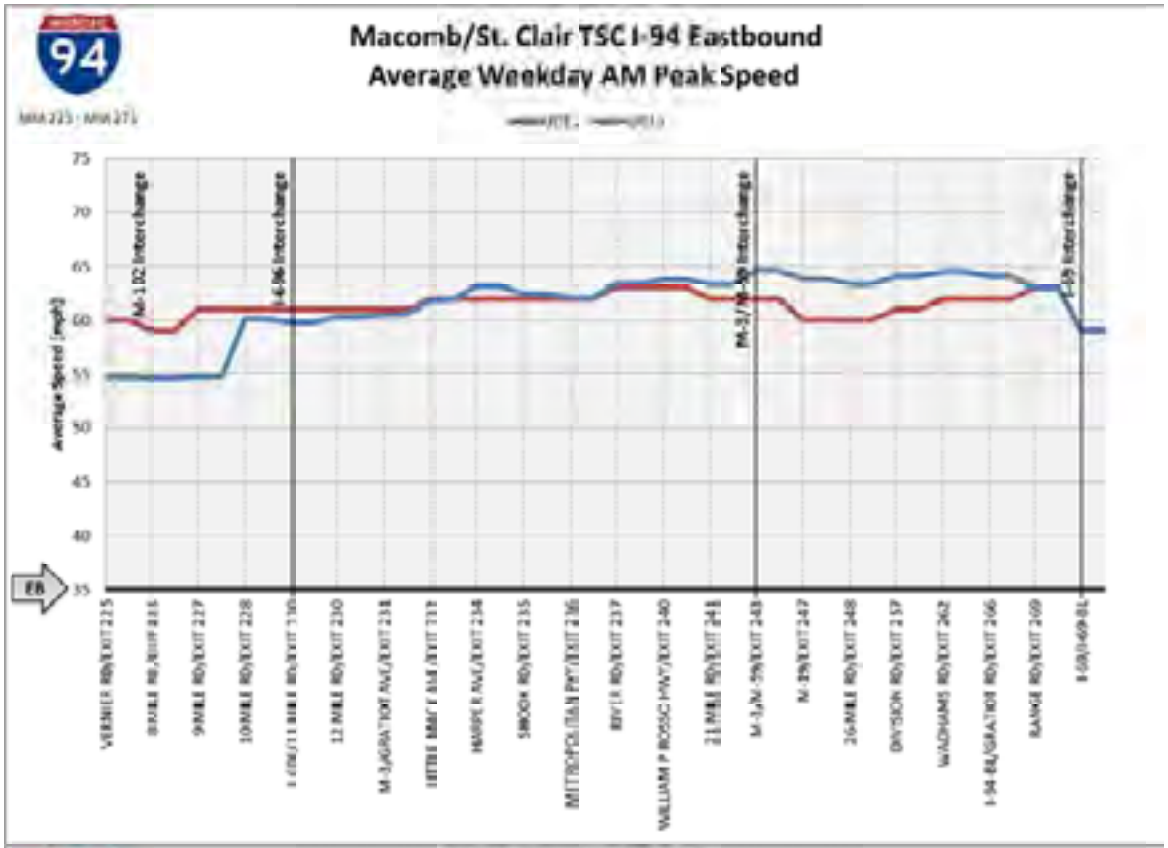

Macomb - St. Clair TSC I-94 Corridor
User Delay Cost
2012 Recurring
2012 Non Recurring
2013 Recurring
$3,500,000
$3,000,000
$2,500,000
$1,000,000
$500,000
$0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Macomb - St. Clair TSC
I-94 Corridor
2012 User Delay Cost
Recurring
Non Recurring
30%
Car
Truck
Truck
Car
70%
2012 UDC:
$19,288,967
Macomb - St. Clair TSC
I-94 Corridor
2013 User Delay Cost
Recurring
Non Recurring
16%
Car
Truck
Car
84%
2013 UDC:
$24,144,591

Figure 39


94
Macomb/St. Clair TSC I-94 Eastbound
Average Weekday AM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
EB
M-102 Interchange
I-696 Interchange
M-3/M-59 Interchange
I-94/I-69 Interchange

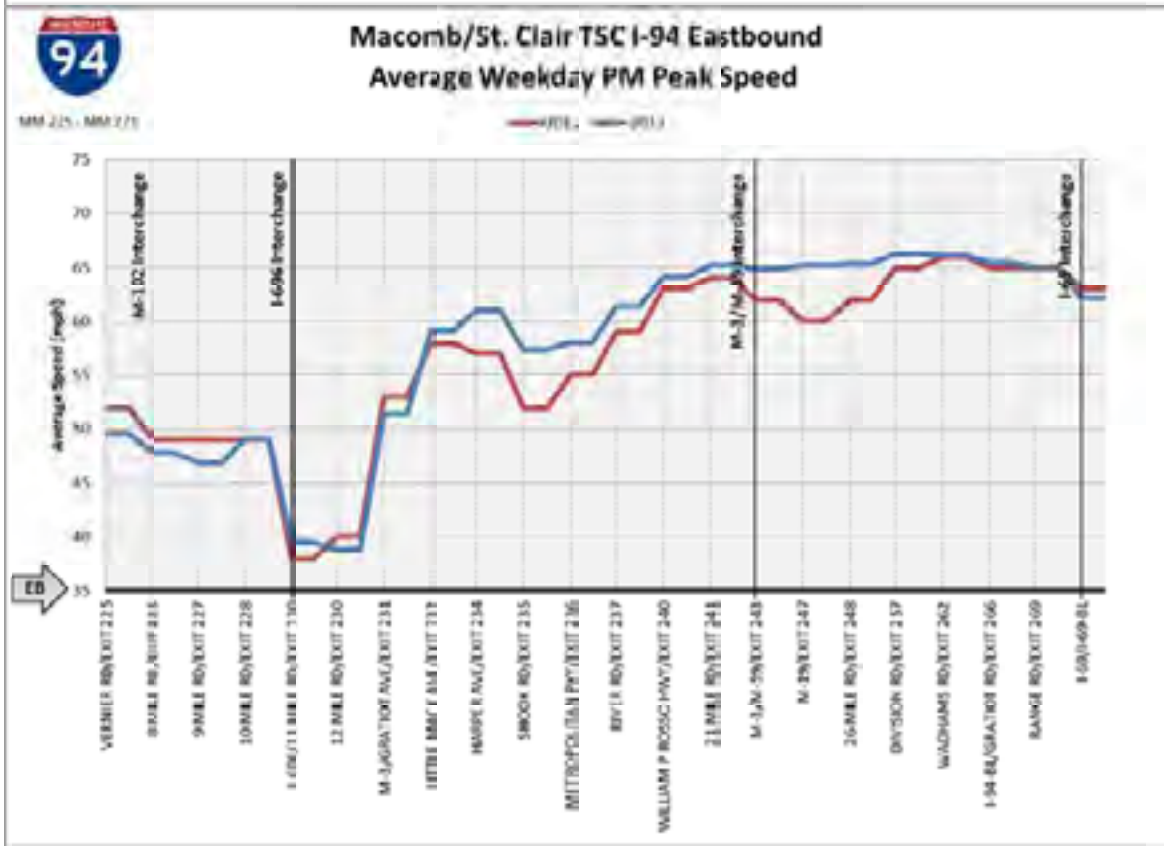
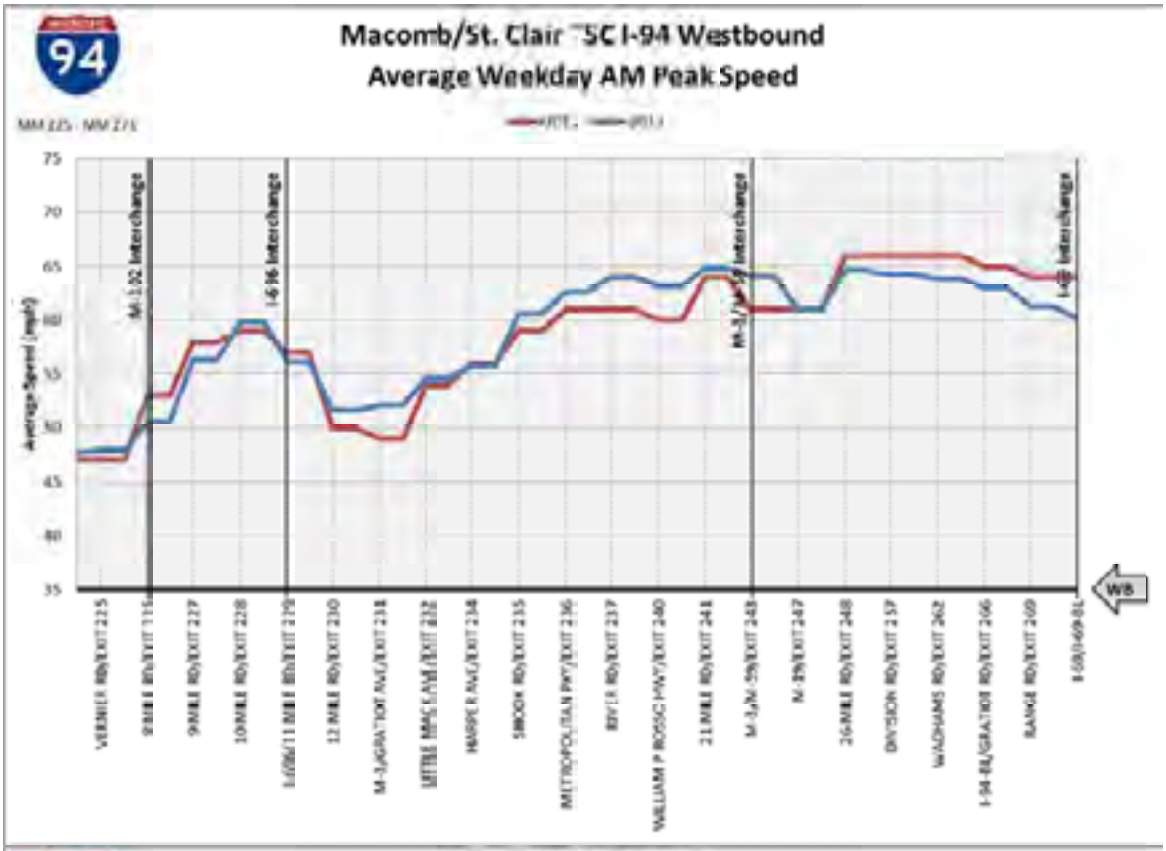

94
Macomb/St. Clair TSC I-94 Eastbound
Average Weekday PM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
EB
M-102 Interchange
I-696 Interchange
M-3/M-59 Interchange

Figure 40


Macomb/St. Clair TSC I-94 Westbound
Average Weekday AM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
M-102 Interchange
I-96 Interchange
I-69 Interchange
WB

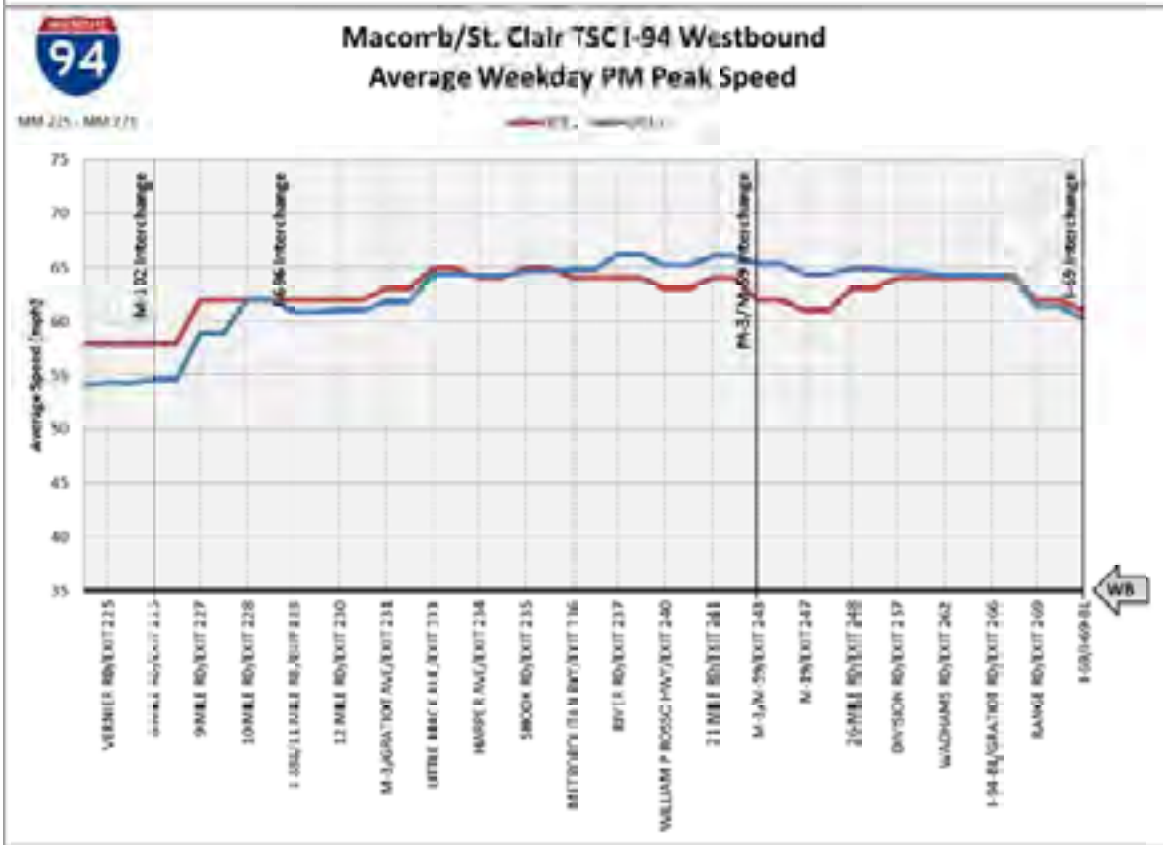

Macomb/St. Clair TSC I-94 Westbound
Average Weekday PM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
M-102 Interchange
I-96 Interchange
I-69 Interchange
WB

Figure 41

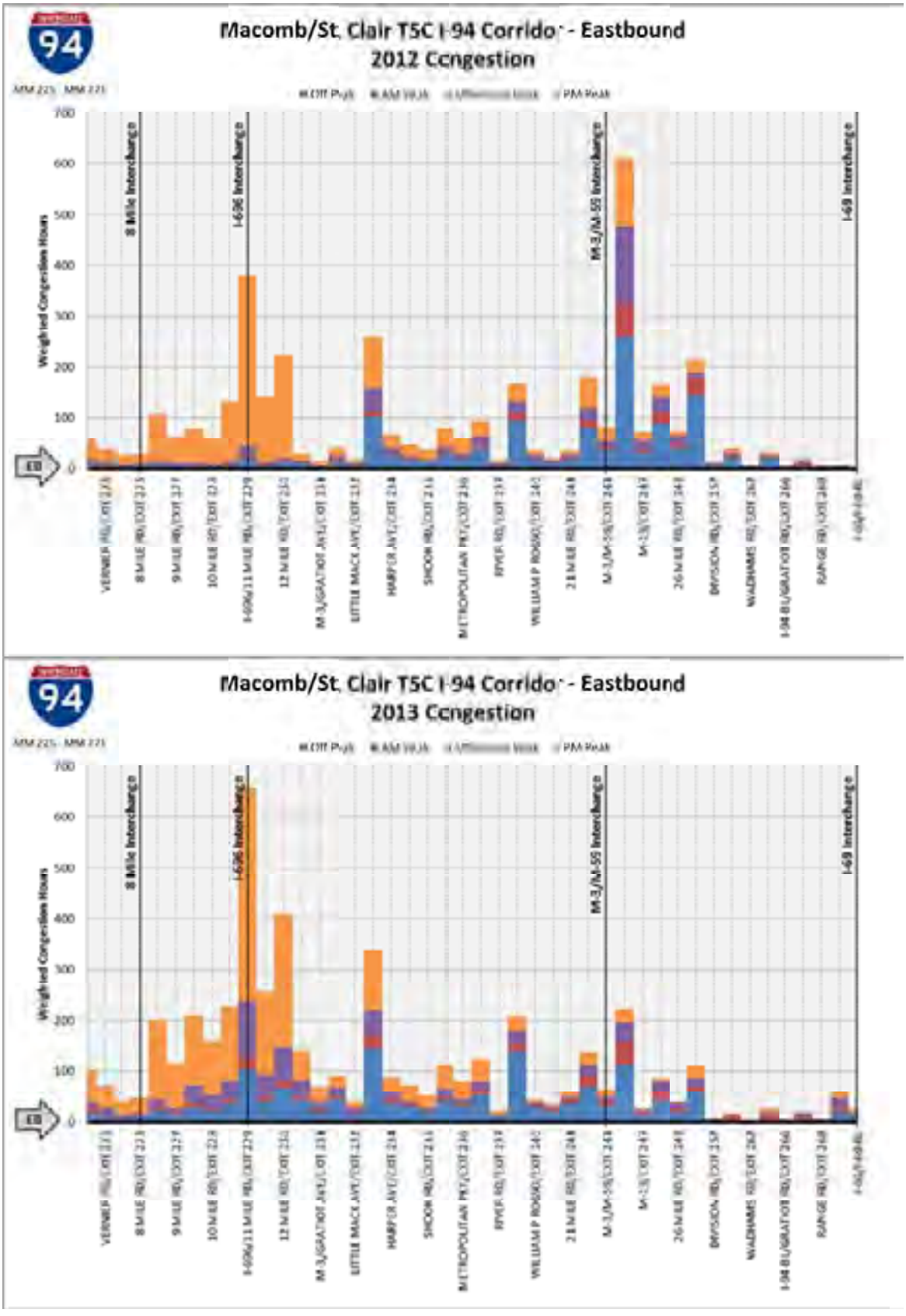
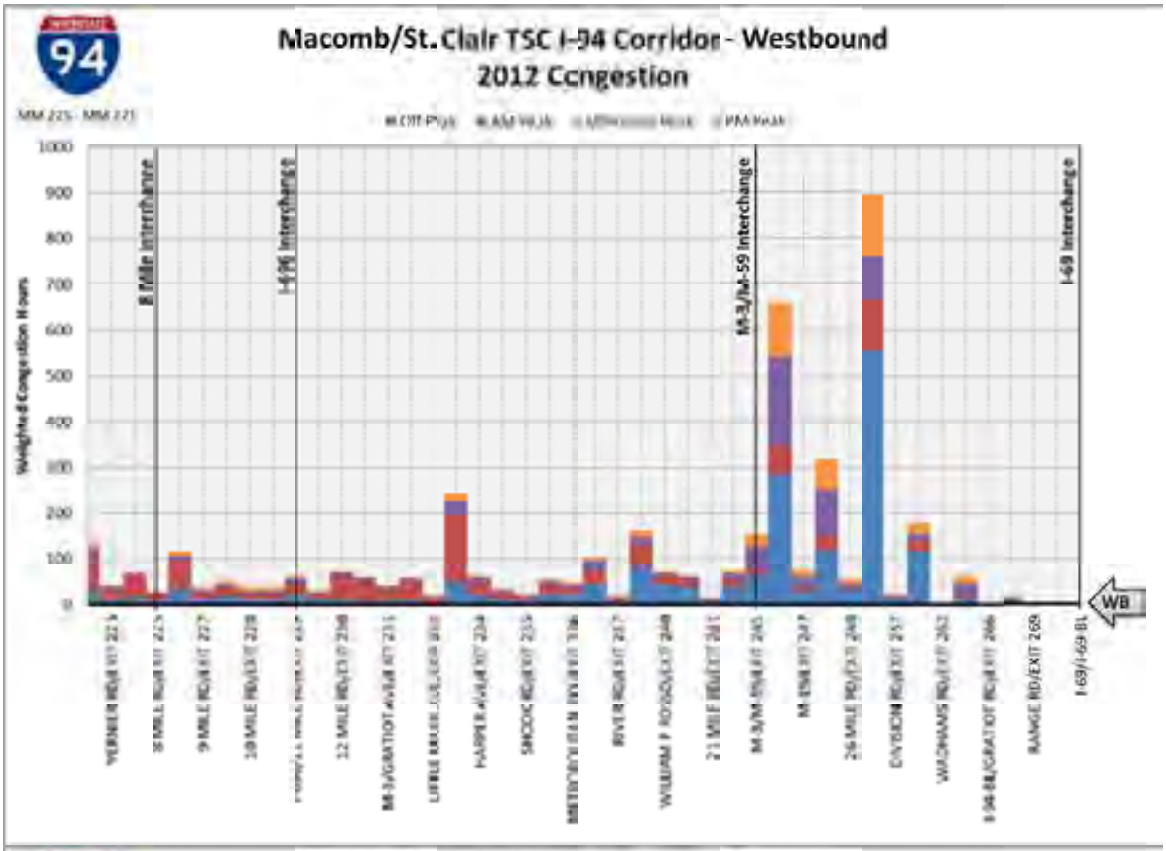

94
Macomb/St. Clair TSC I-94 Corrido - Eastbound
2012 Congestion
Weighted Congestion Hours
8 Mile Interchange
I-696 Interchange
M-3/M-59 Interchange
I-69 Interchange
94
Macomb/St. Clair TSC I-94 Corrido - Eastbound
2013 Congestion
Weighted Congestion Hours
8 Mile Interchange
I-696 Interchange
M-3/M-59 Interchange
I-69 Interchange

Figure 42


94
Macomb/St. Clair TSC I-94 Corridor - Westbound
2012 Congestion
8 Mile Interchange
I-696 Interchange
M-3/M-59 Interchange
I-69 Interchange
WB

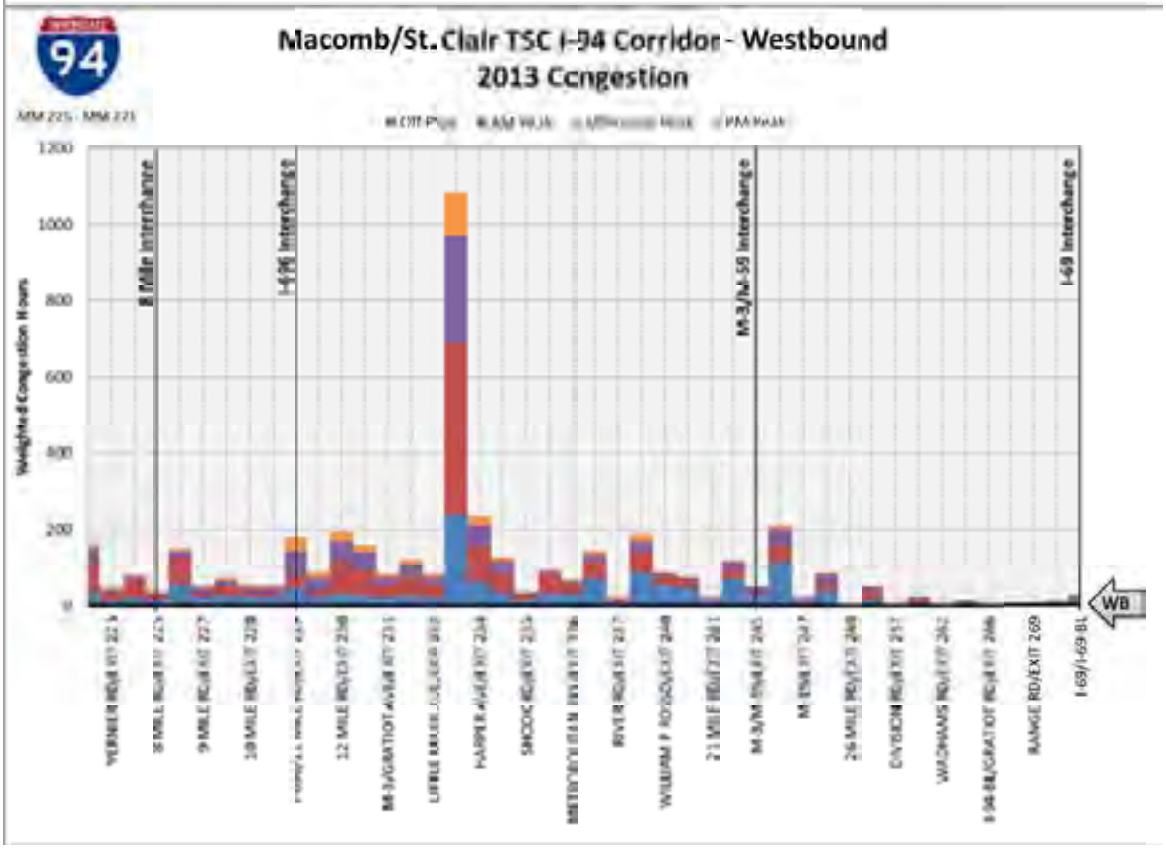
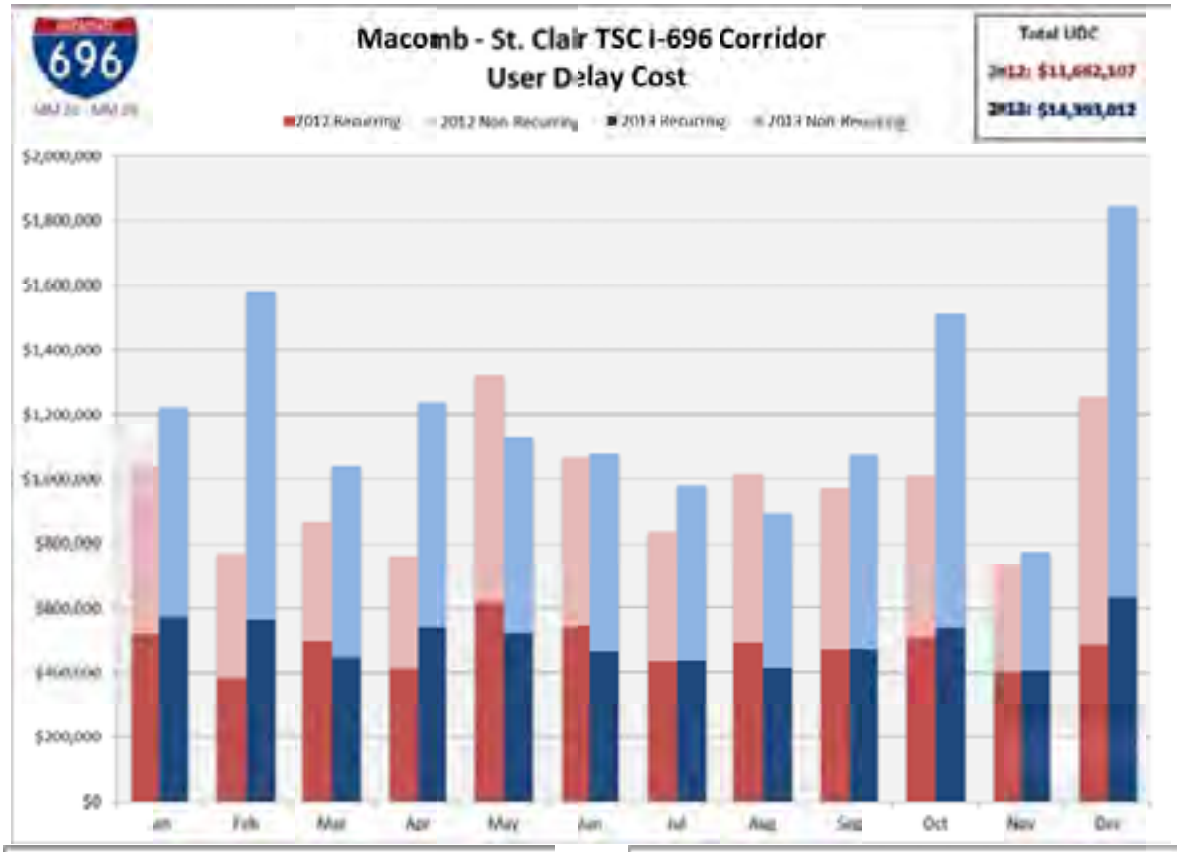
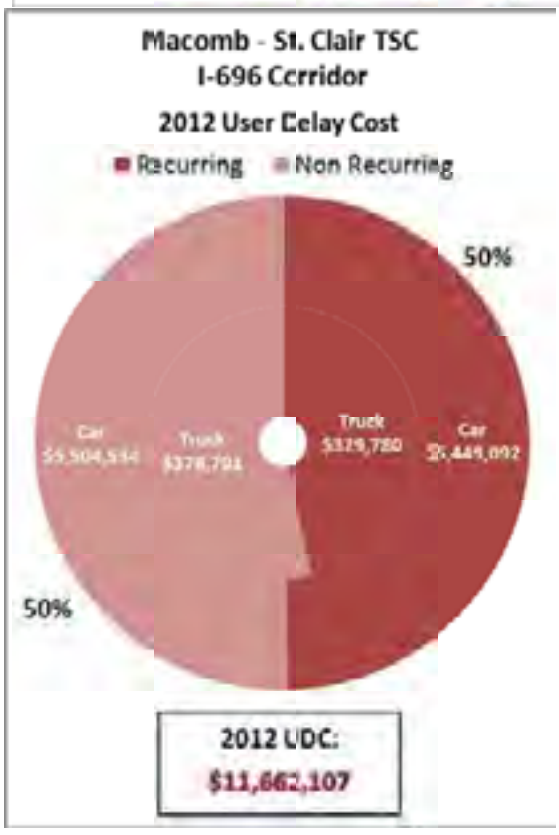

94
Macomb/St. Clair TSC I-94 Corridor - Westbound
2013 Congestion
8 Mile Interchange
I-696 Interchange
M-3/M-59 Interchange
I-69 Interchange
WB

Figure 43


696
Macomb - St. Clair TSC I-696 Corridor
User Delay Cost
Total UDC
2012: $11,662,107
2013: $14,393,012
2012 Recurring
2012 Non Recurring
2013 Recurring
$2,000,000
$1,800,000
$1,600,000
$1,400,000
$1,200,000
$1,000,000
$800,000
$600,000
$400,000
$200,000
$0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec


Macomb - St. Clair TSC
I-696 Corridor
2012 User Delay Cost
Recurring
Non Recurring
50%
50%
Car
Truck
$329,780
Car
Truck
2012 UDC:
$11,662,107

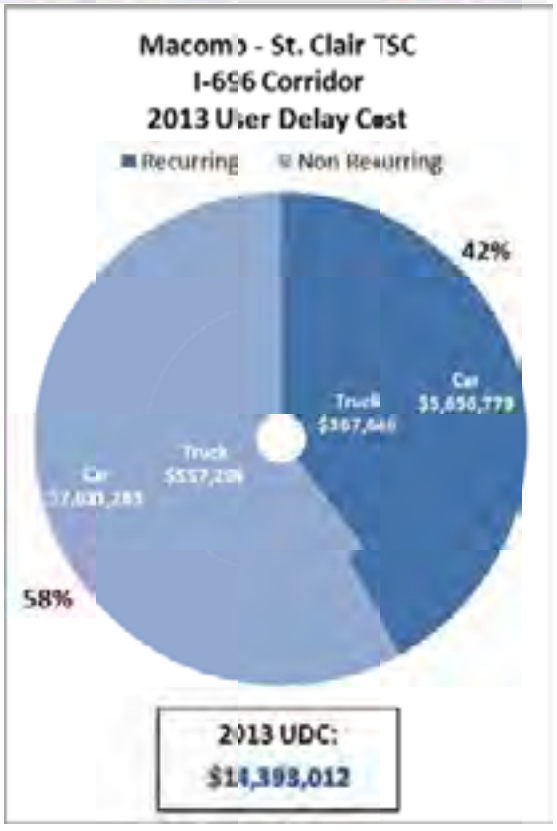
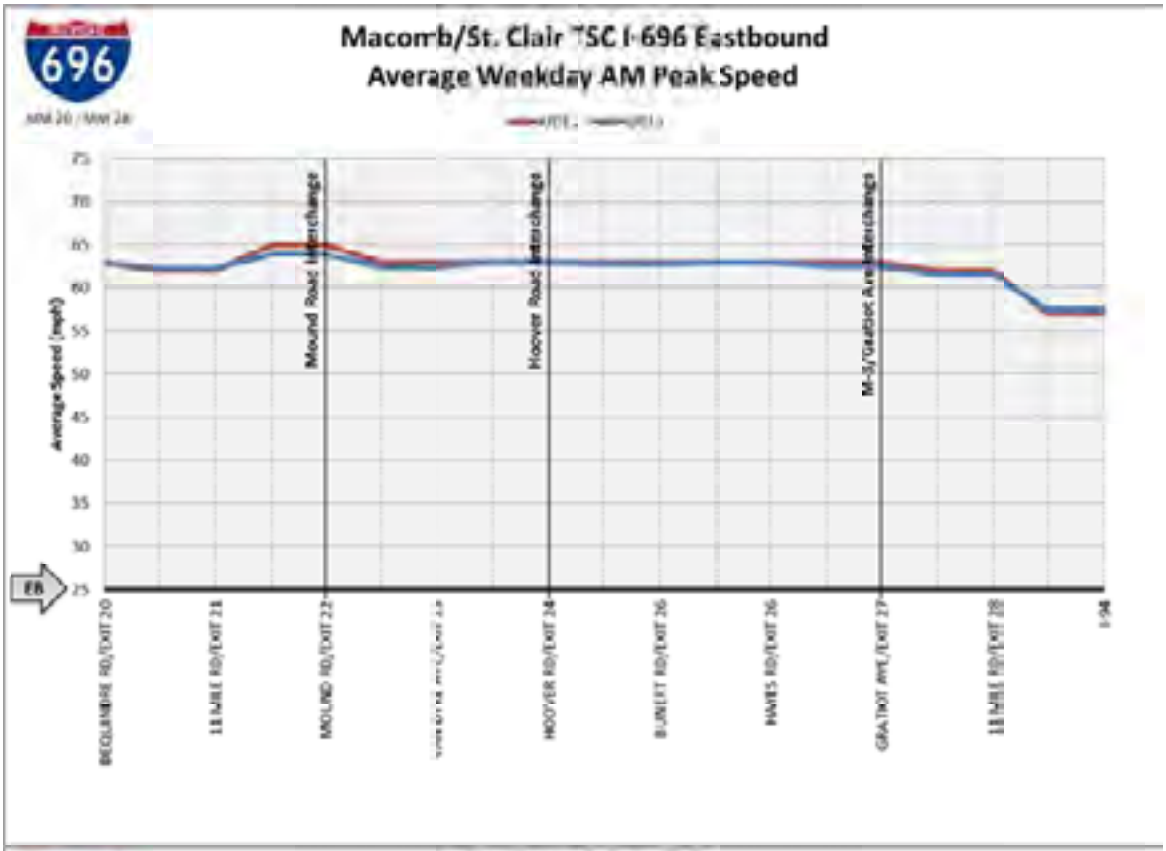

Macomb - St. Clair TSC
I-696 Corridor
2013 User Delay Cost
Recurring
Non Recurring
42%
58%
Car
$5,656,779
Truck
Truck
Car
2013 UDC:
$14,393,012

Figure 44


696
Macomb/St. Clair TSC I-696 Eastbound
Average Weekday AM Peak Speed
Average Speed (mph)
Mound Road Interchange
Hoover Road Interchange
EB

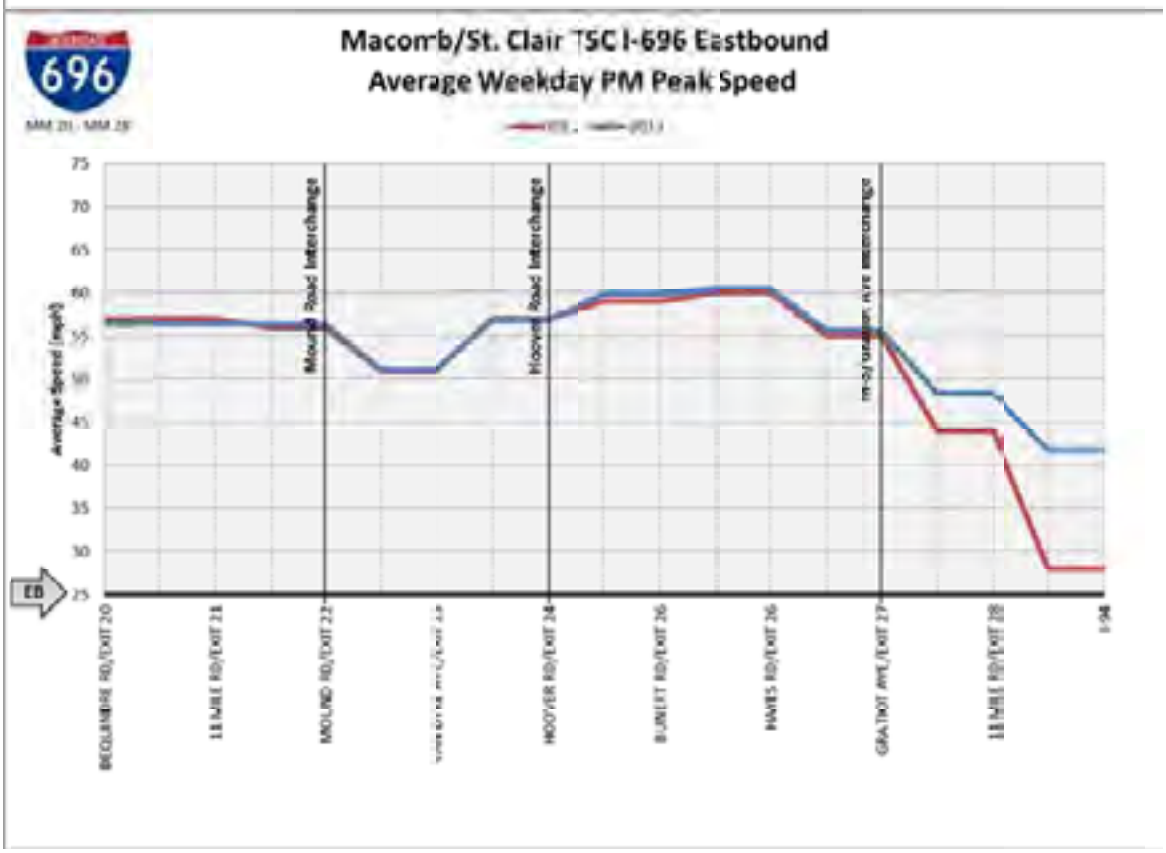
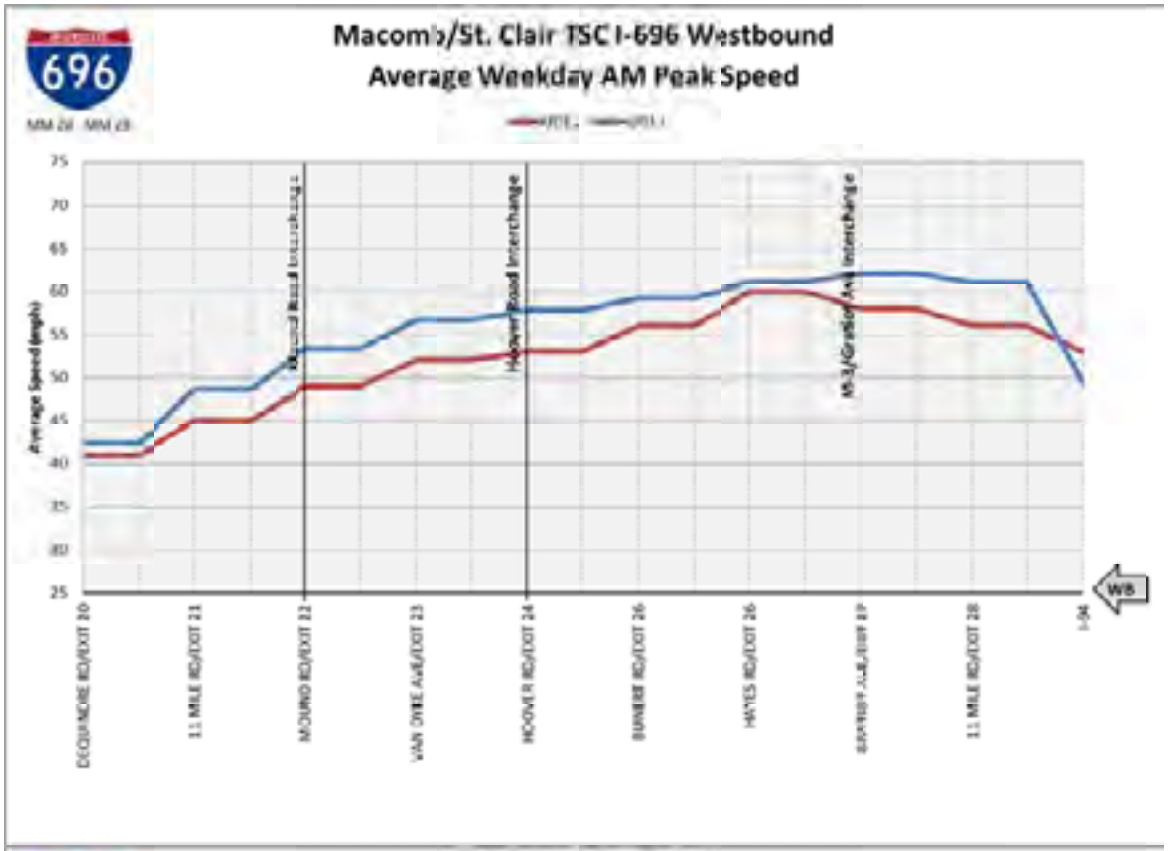

696
Macomb/St. Clair TSC I-696 Eastbound
Average Weekday PM Peak Speed
Average Speed (mph)
Mound Road Interchange
Hoover Road Interchange
EB

Figure 45


696
Macomb/St. Clair TSC I-696 Westbound
Average Weekday AM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
30
25
Hoover Road Interchange
M-3/Gratiot Ave Interchange
WB

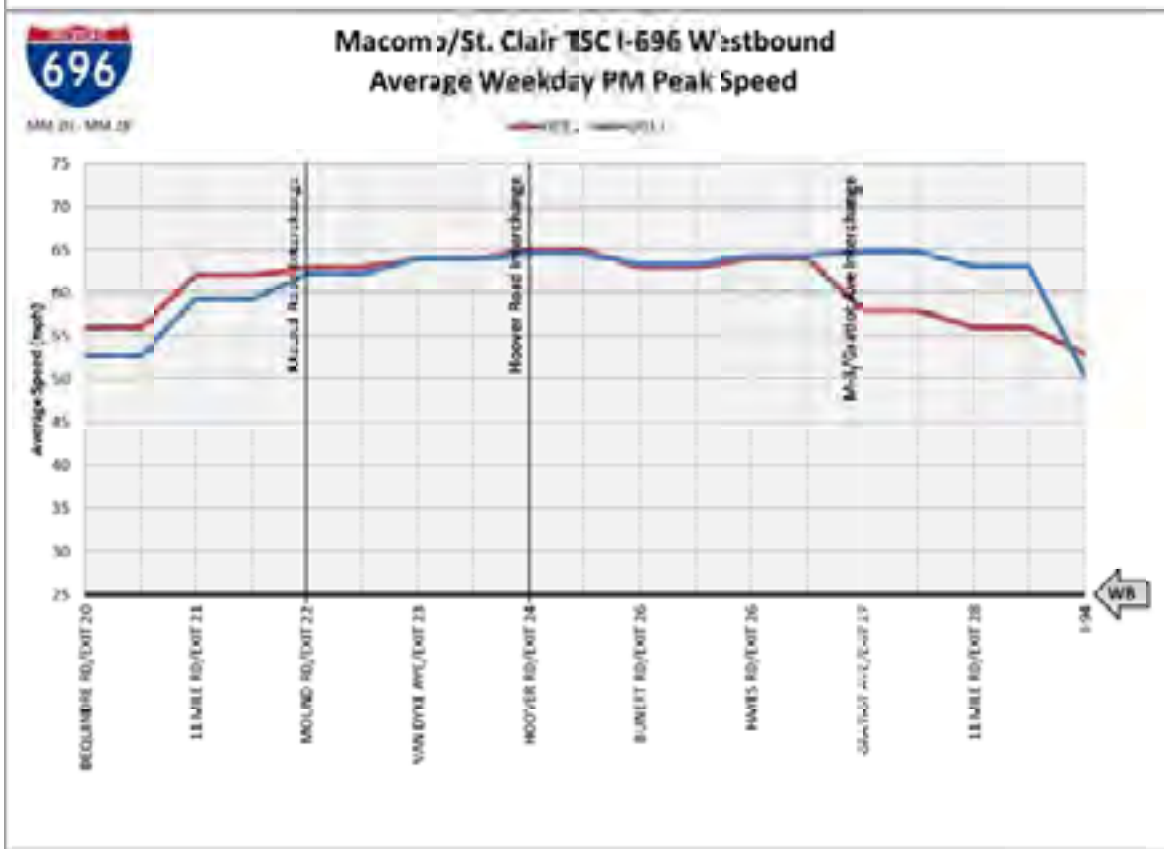
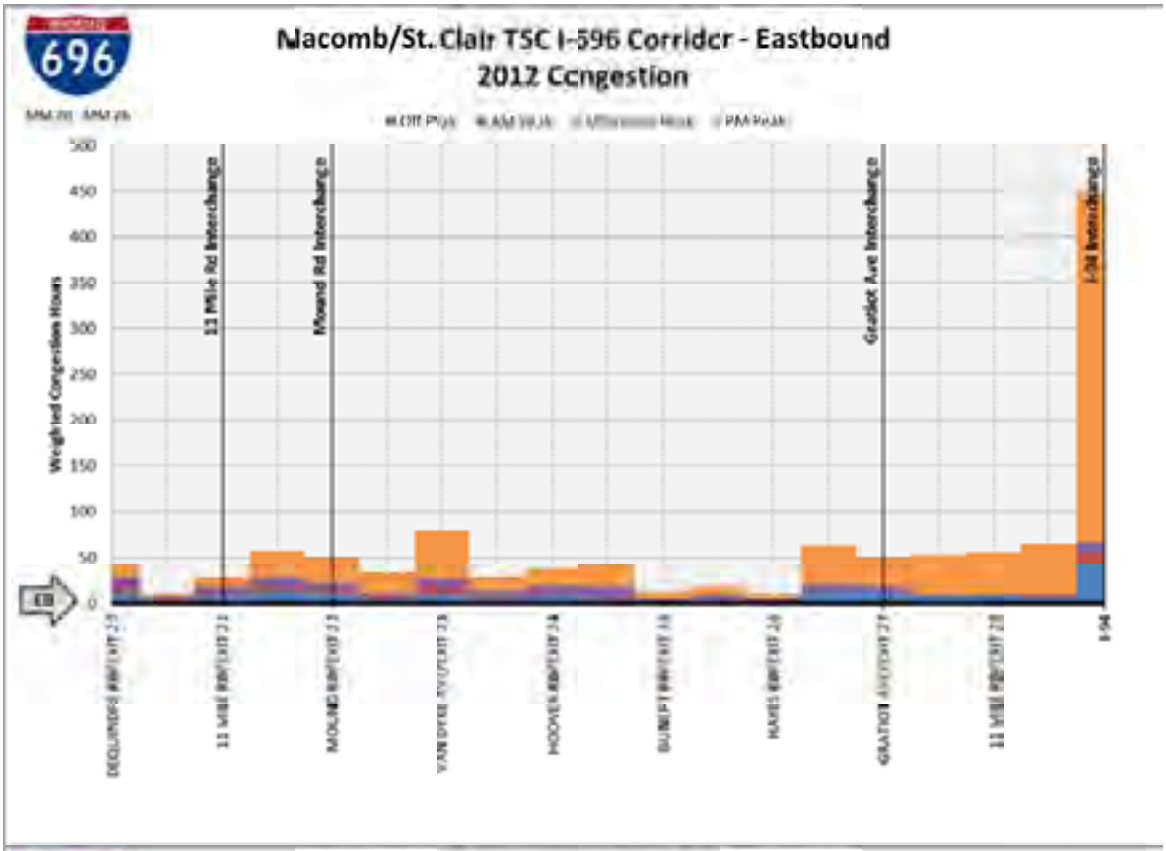

696
Macomb/St. Clair TSC I-696 Westbound
Average Weekday PM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
30
25
Hoover Road Interchange
WB

Figure 46


696
Macomb/St. Clair TSC I-696 Corridor - Eastbound
2012 Congestion
Weighted Congestion Hours
0
50
100
150
200
250
300
350
400
450
500
12 Mile Rd Interchange
Mound Rd Interchange
Gratiot Ave Interchange
I-94 Interchange

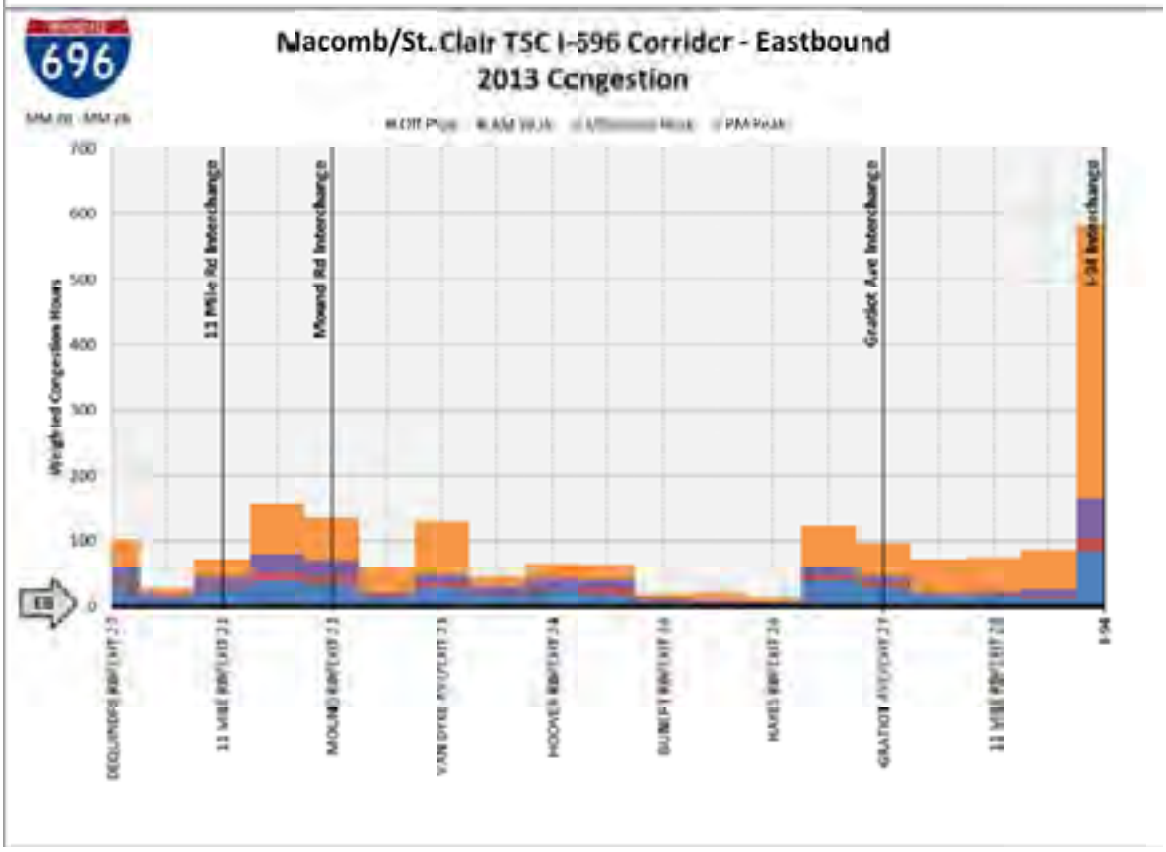
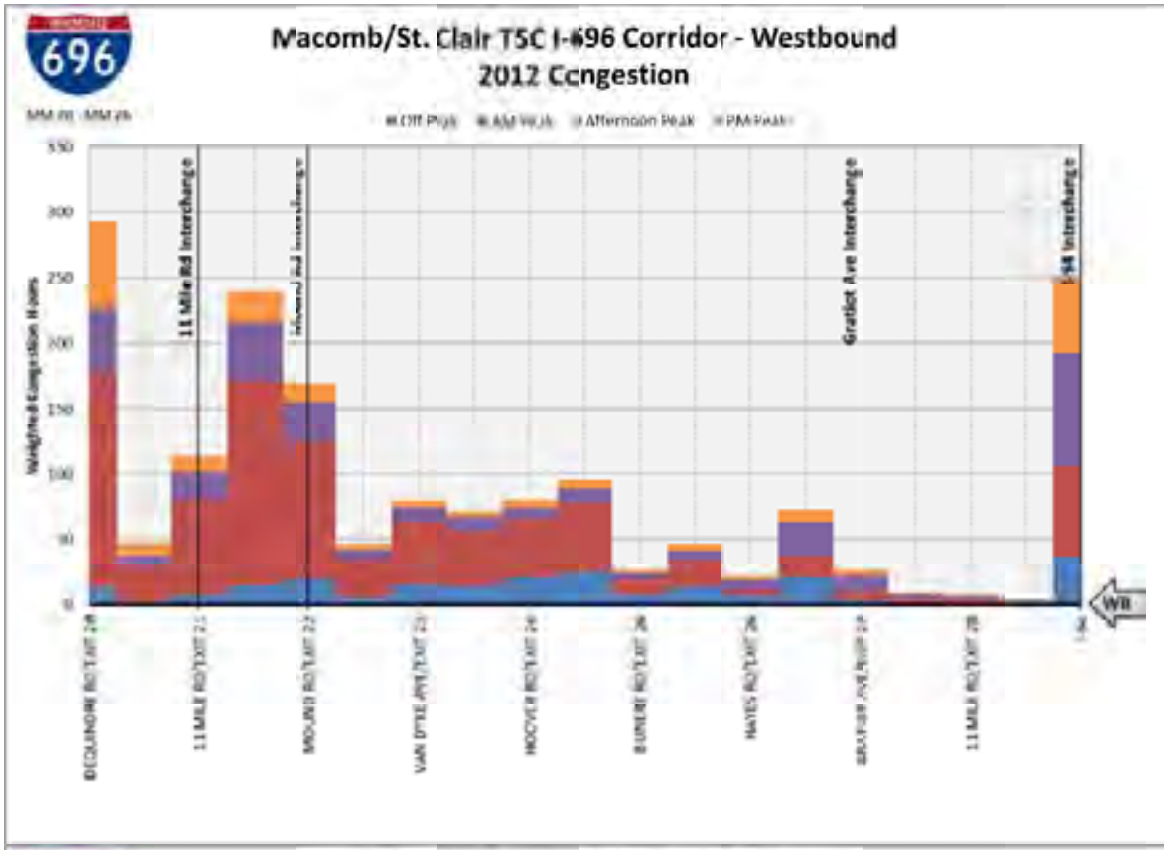

696
Macomb/St. Clair TSC I-696 Corridor - Eastbound
2013 Congestion
Weighted Congestion Hours
0
100
200
300
400
500
600
700
12 Mile Rd Interchange
Mound Rd Interchange
Gratiot Ave Interchange
I-94 Interchange

Figure 47


696
Macomb/St. Clair TSC I-696 Corridor - Westbound
2012 Congestion
11 Mile Rd Interchange
Gratiot Ave Interchange
I-94 Interchange
WB

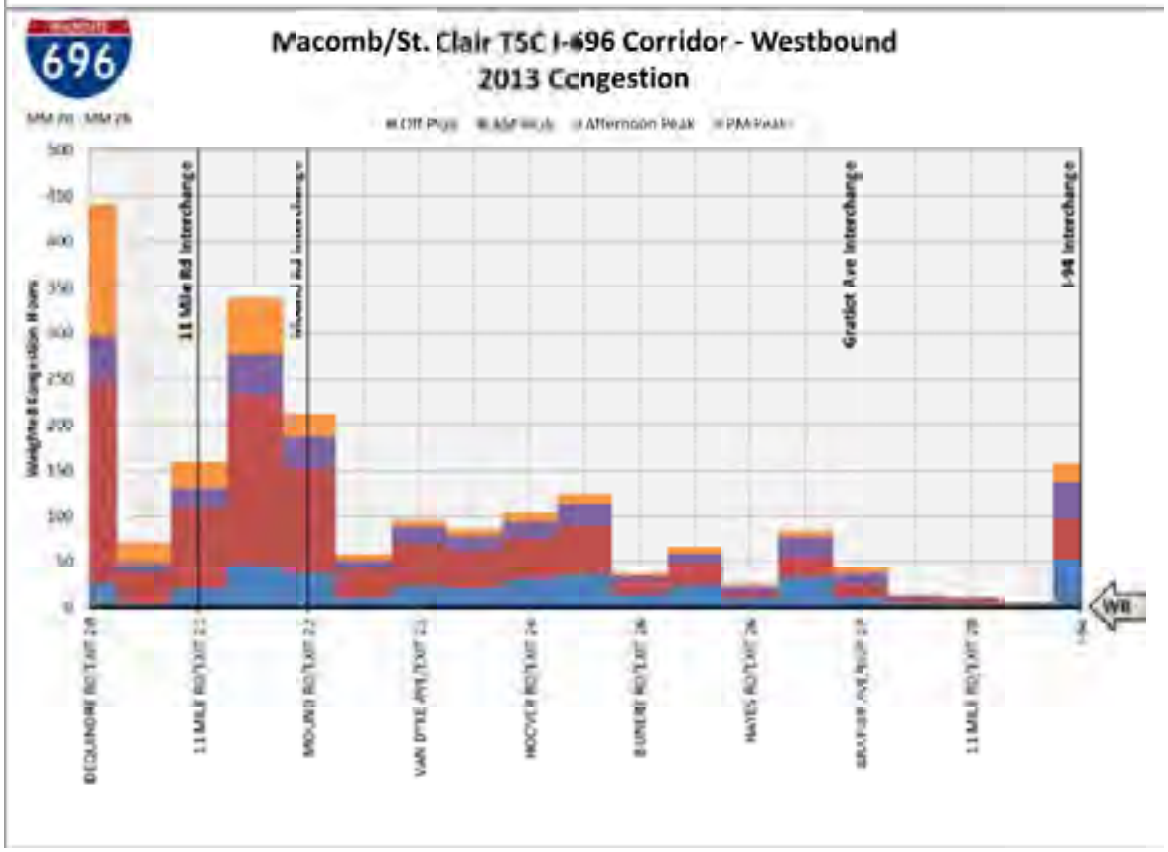
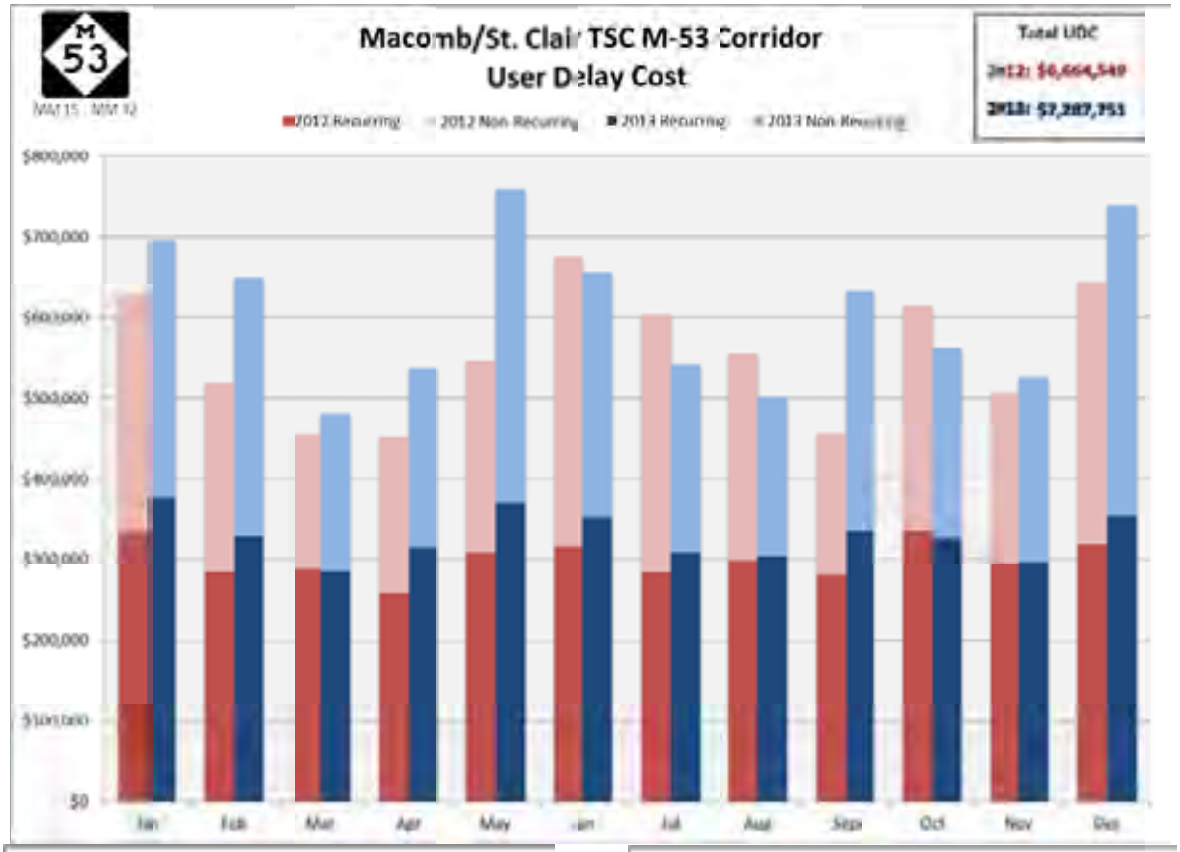
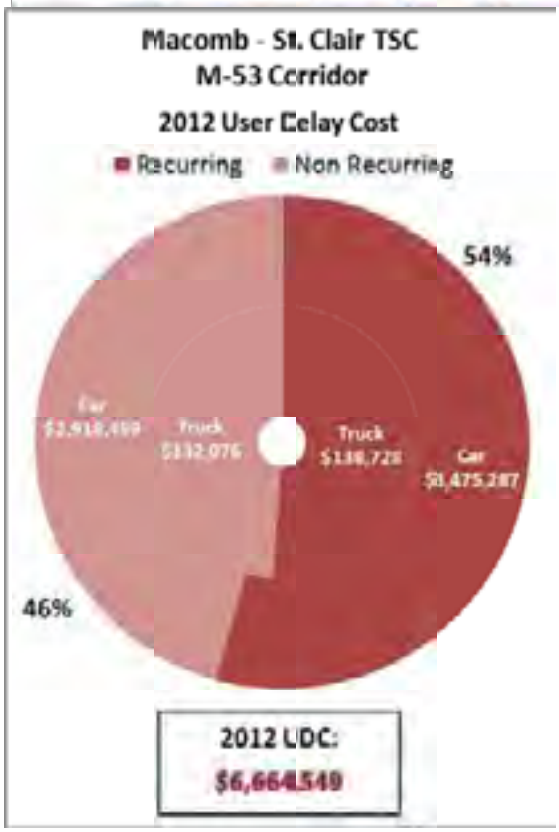

696
Macomb/St. Clair TSC I-696 Corridor - Westbound
2013 Congestion
11 Mile Rd Interchange
Gratiot Ave Interchange
I-94 Interchange
WB

Figure 48


M 53
Macomb/St. Clair TSC M-53 Corridor
User Delay Cost
2012 Recurring
2012 Non Recurring
2013 Recurring
$800,000
$700,000
$600,000
$500,000
$400,000
$300,000
$200,000
$100,000
$0


Macomb - St. Clair TSC
M-53 Corridor
2012 User Delay Cost
Recurring
Non Recurring
54%
46%
Car
$2,918,499
Truck
$332,076
Truck
$138,728
Car
$1,475,287
2012 UDC:
$6,664,549

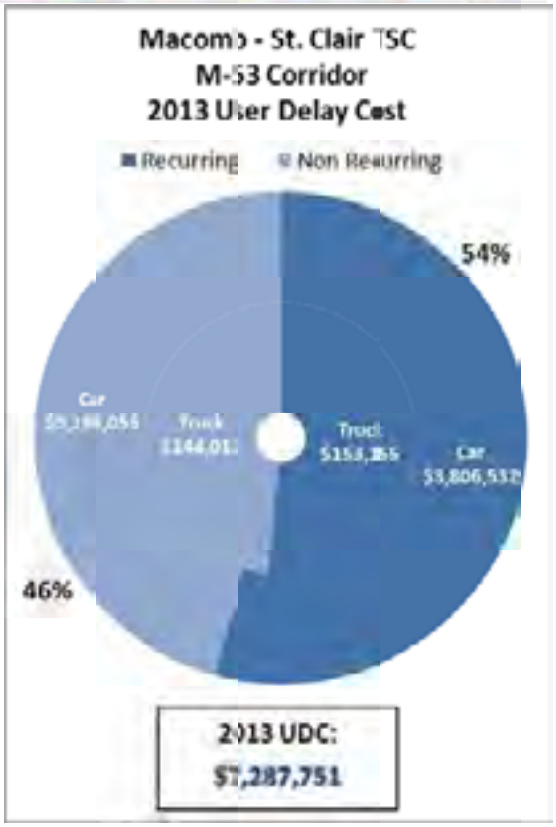
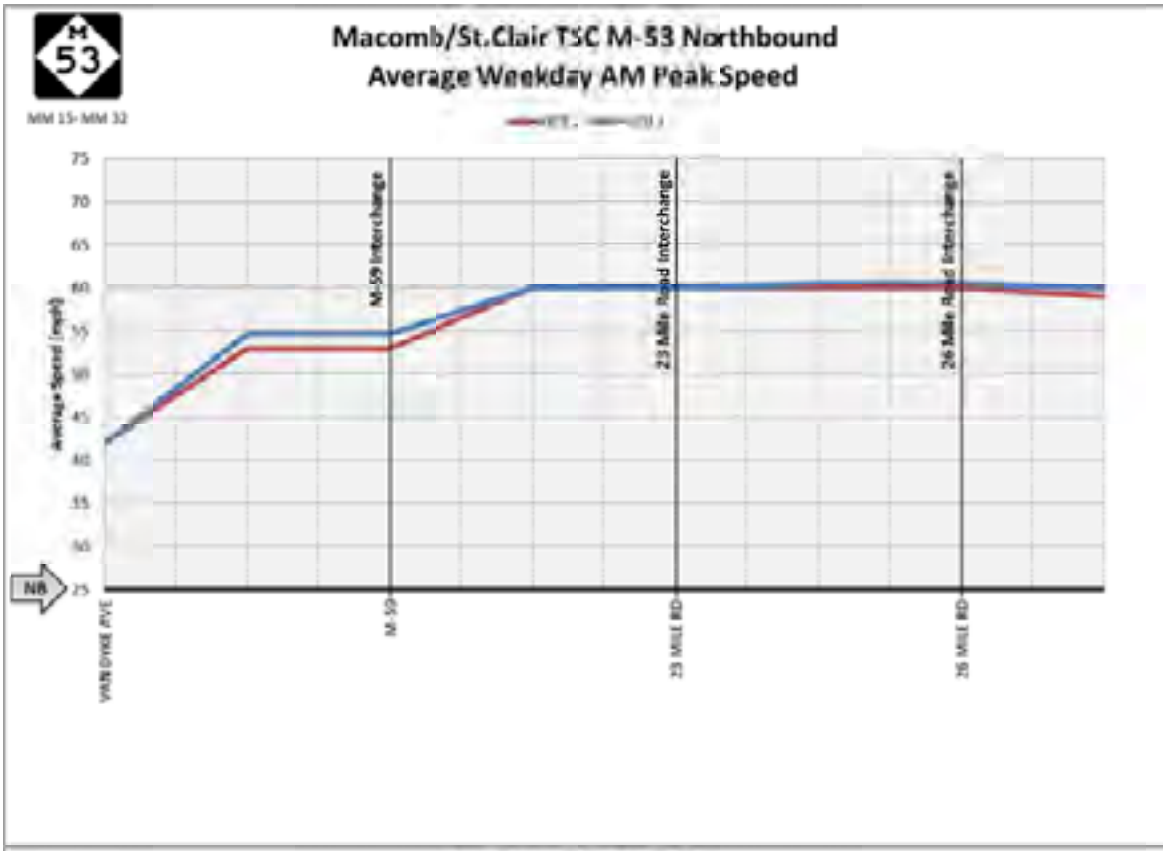

Macomb - St. Clair TSC
M-53 Corridor
2013 User Delay Cost
Recurring
Non Recurring
54%
46%
Car
Truck
Truck
Car
$3,806,532
2013 UDC:
$7,287,751

Figure 49


M 53
MM 15- MM 32
Macomb/St.Clair TSC M-53 Northbound
Average Weekday AM Peak Speed
75
70
65
60
55
50
45
40
35
30
25
Average Speed (mph)
M-59 Interchange
23 Mile Road Interchange
26 Mile Road Interchange
NB
VAN DYKE AVE
M-59
23 MILE RD
26 MILE RD

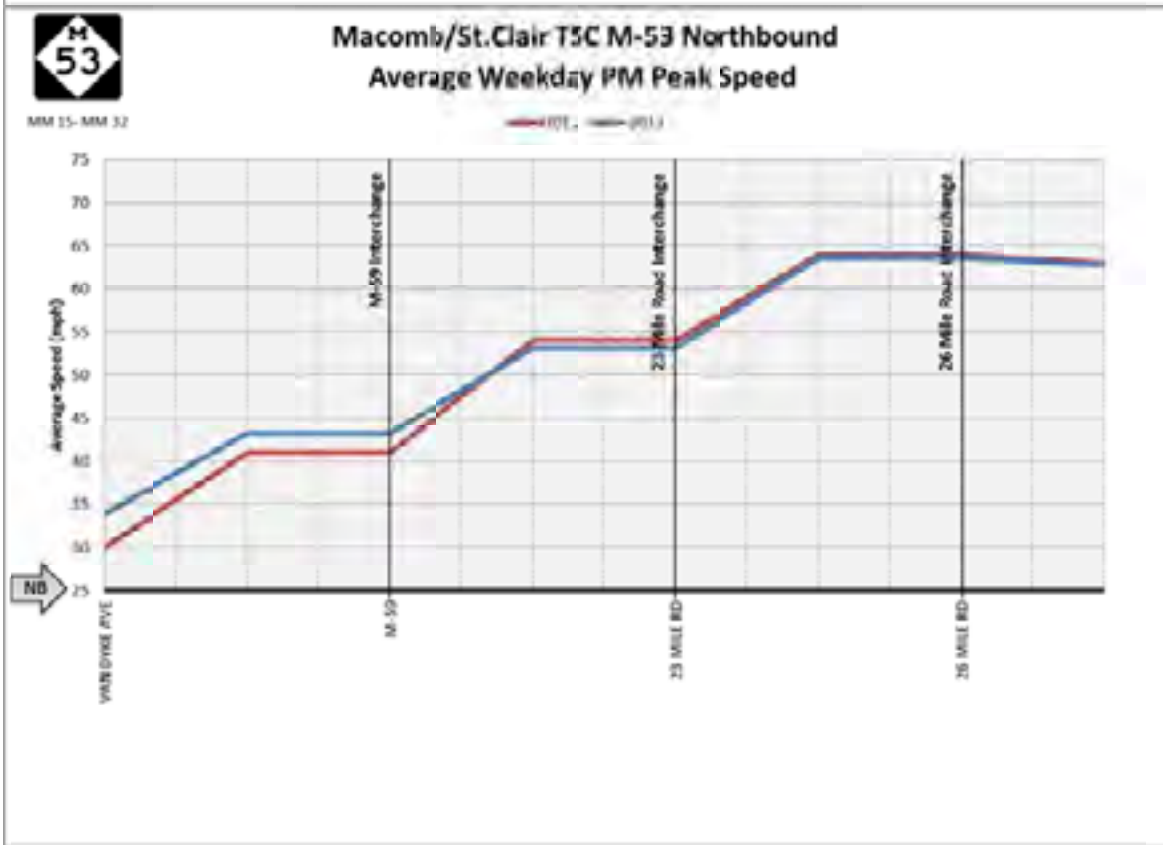
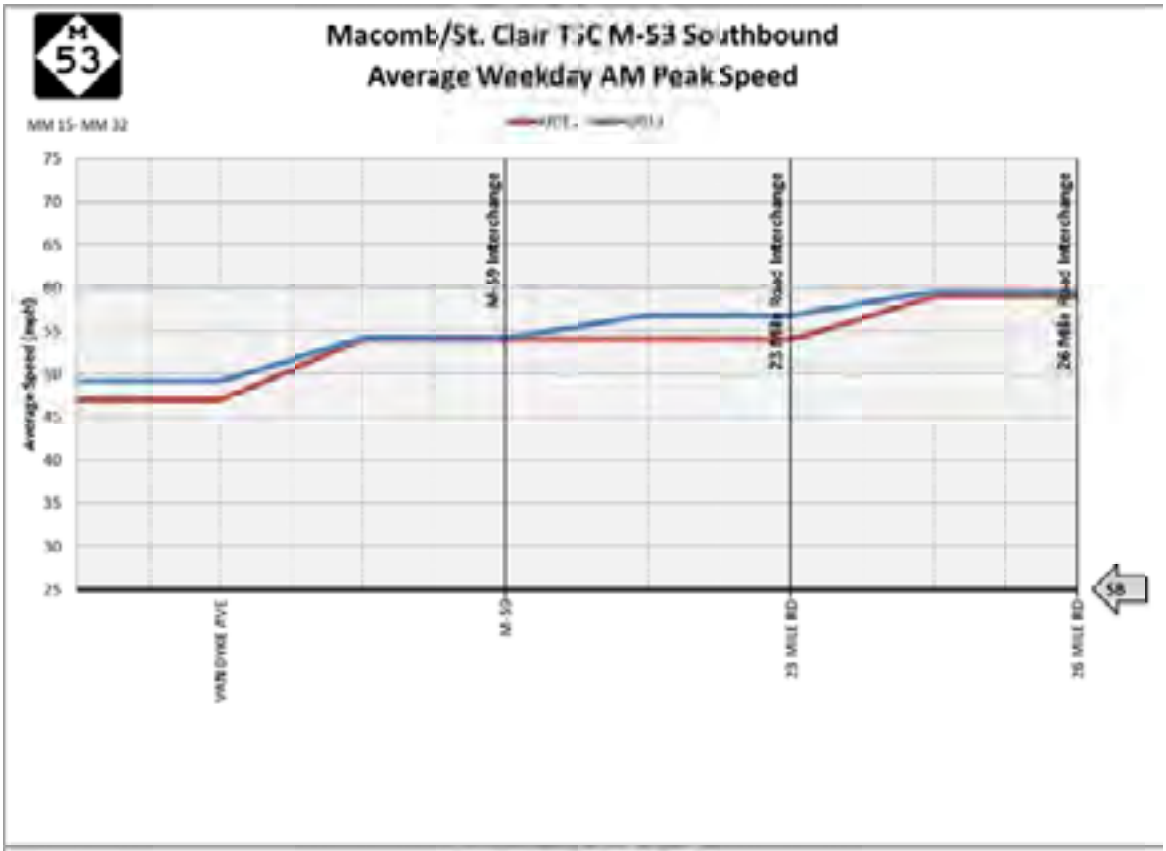

M 53
MM 15- MM 32
Macomb/St.Clair TSC M-53 Northbound
Average Weekday PM Peak Speed
75
70
65
60
55
50
45
40
35
30
25
Average Speed (mph)
M-59 Interchange
23 Mile Road Interchange
26 Mile Road Interchange
NB
VAN DYKE AVE
M-59
23 MILE RD
26 MILE RD

Figure 50


Macomb/St. Clair TSC M-53 Southbound
Average Weekday AM Peak Speed
MM 15- MM 32
Average Speed (mph)
75
70
65
60
55
50
45
40
35
30
25
M-59 Interchange
23 Mile Road Interchange
26 Mile Road Interchange
VAN DYKE AVE
M-59
23 MILE RD
26 MILE RD
SB

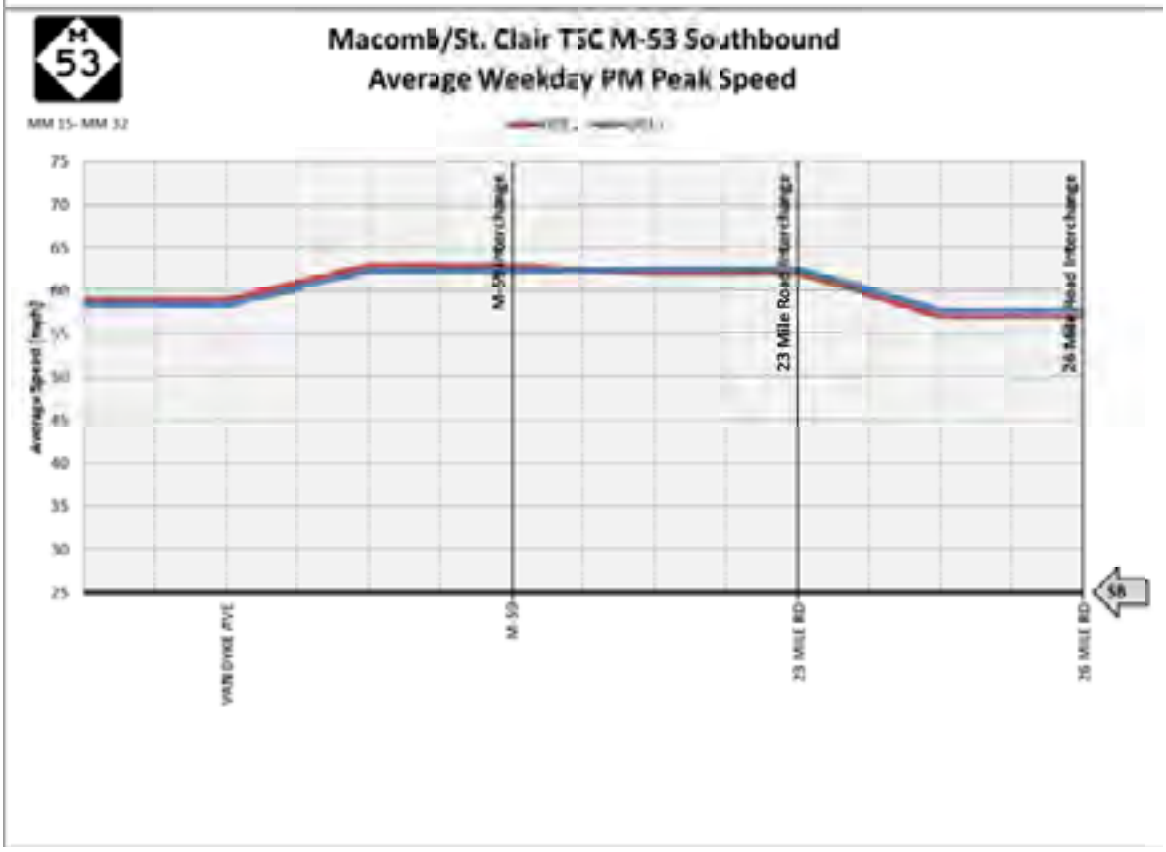
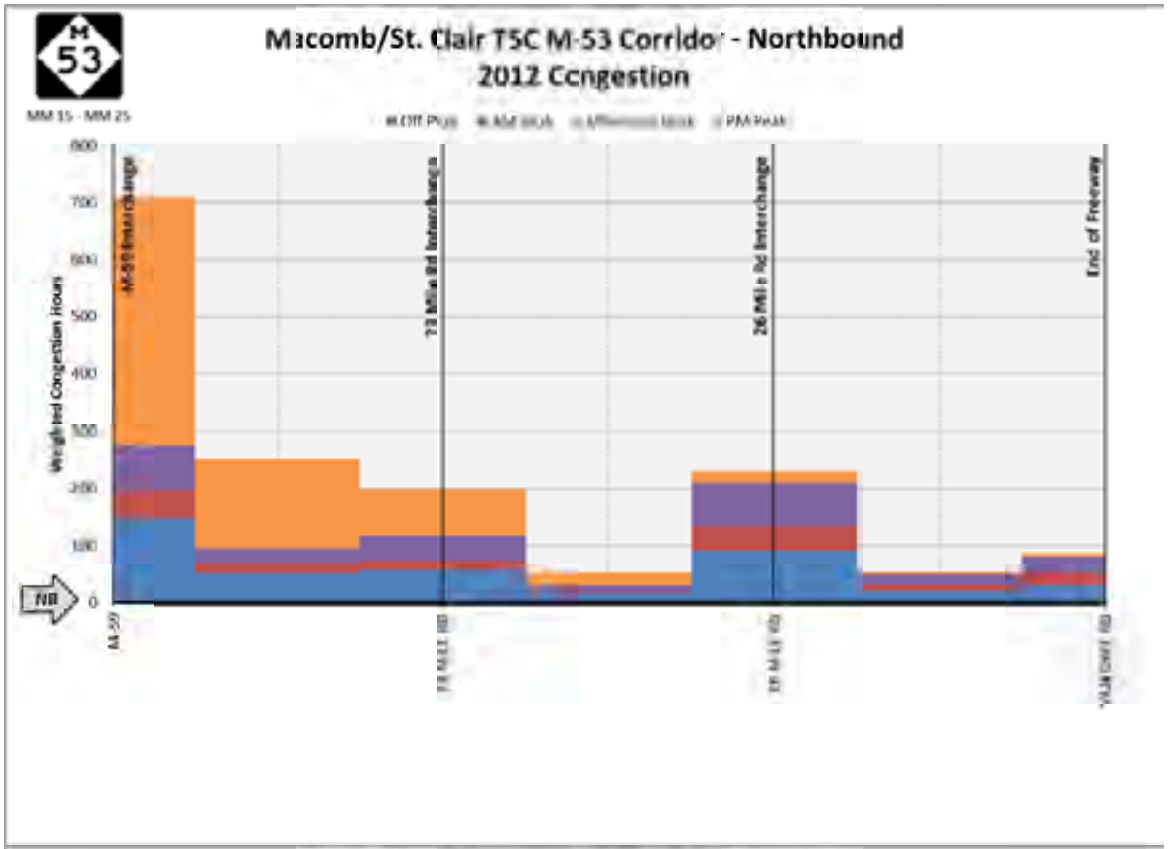

Macomb/St. Clair TSC M-53 Southbound
Average Weekday PM Peak Speed
MM 15- MM 32
Average Speed (mph)
75
70
65
60
55
50
45
40
35
30
25
M-59 Interchange
23 Mile Road Interchange
26 Mile Road Interchange
VAN DYKE AVE
M-59
23 MILE RD
26 MILE RD
SB

Figure 51


53
MM 15 - MM 25
Macomb/St. Clair TSC M-53 Corridor - Northbound
2012 Congestion
Weighted Congestion Hours
NB
End of Freeway

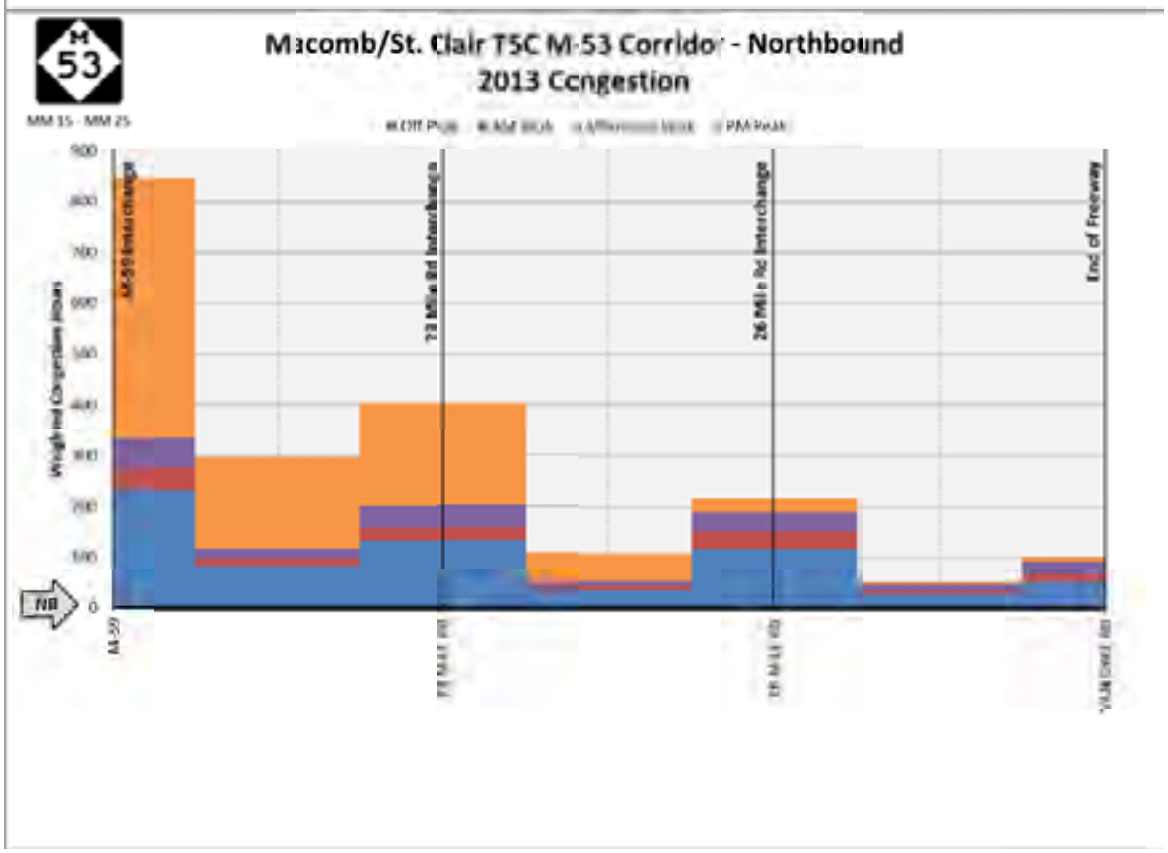
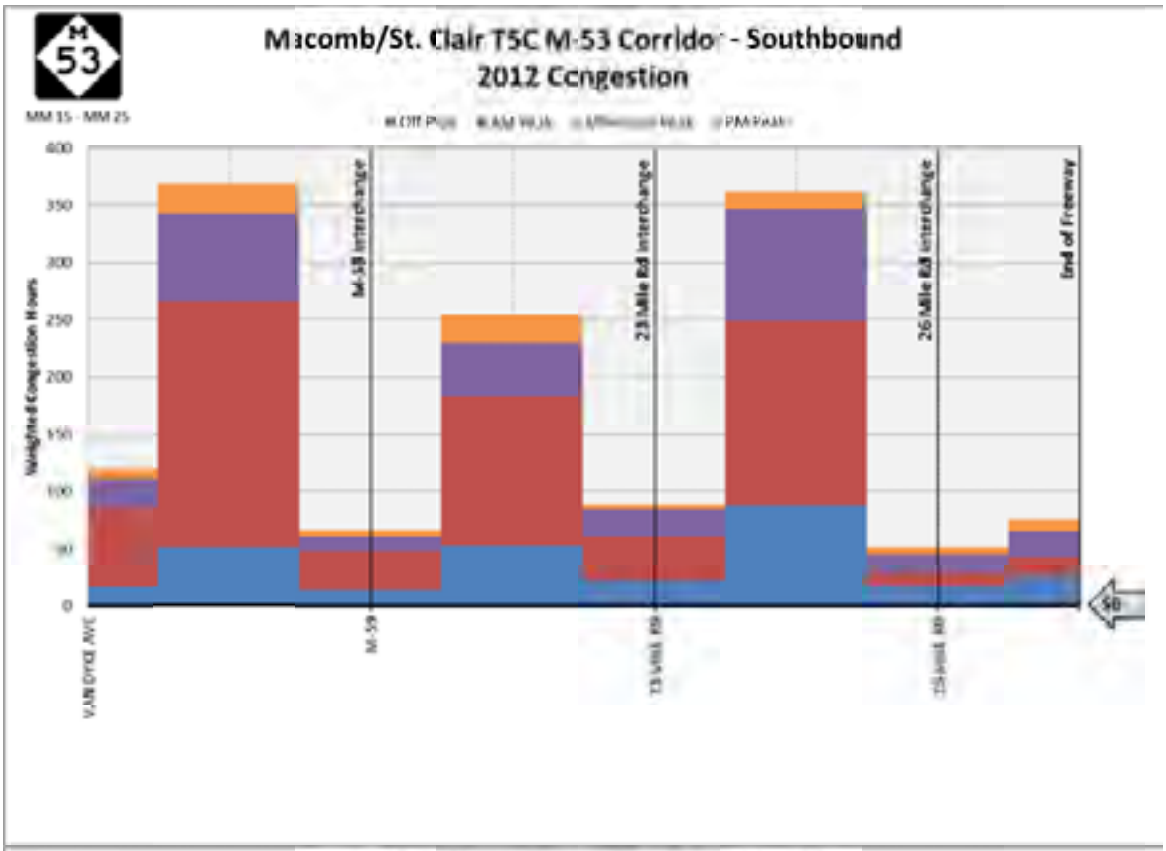

53
MM 15 - MM 25
Macomb/St. Clair TSC M-53 Corridor - Northbound
2013 Congestion
Weighted Congestion Hours
NB
End of Freeway

Figure 52


M 53
MM 15 - MM 25
Macomb/St. Clair T5C M-53 Corrido - Southbound
2012 Congestion
Weighted Congestion Hours
M-59 interchange
23 Mile Rd interchange
26 Mile Rd interchange
End of Freeway
VAN DYKE AVE
M-59
23 Mile Rd
26 Mile Rd

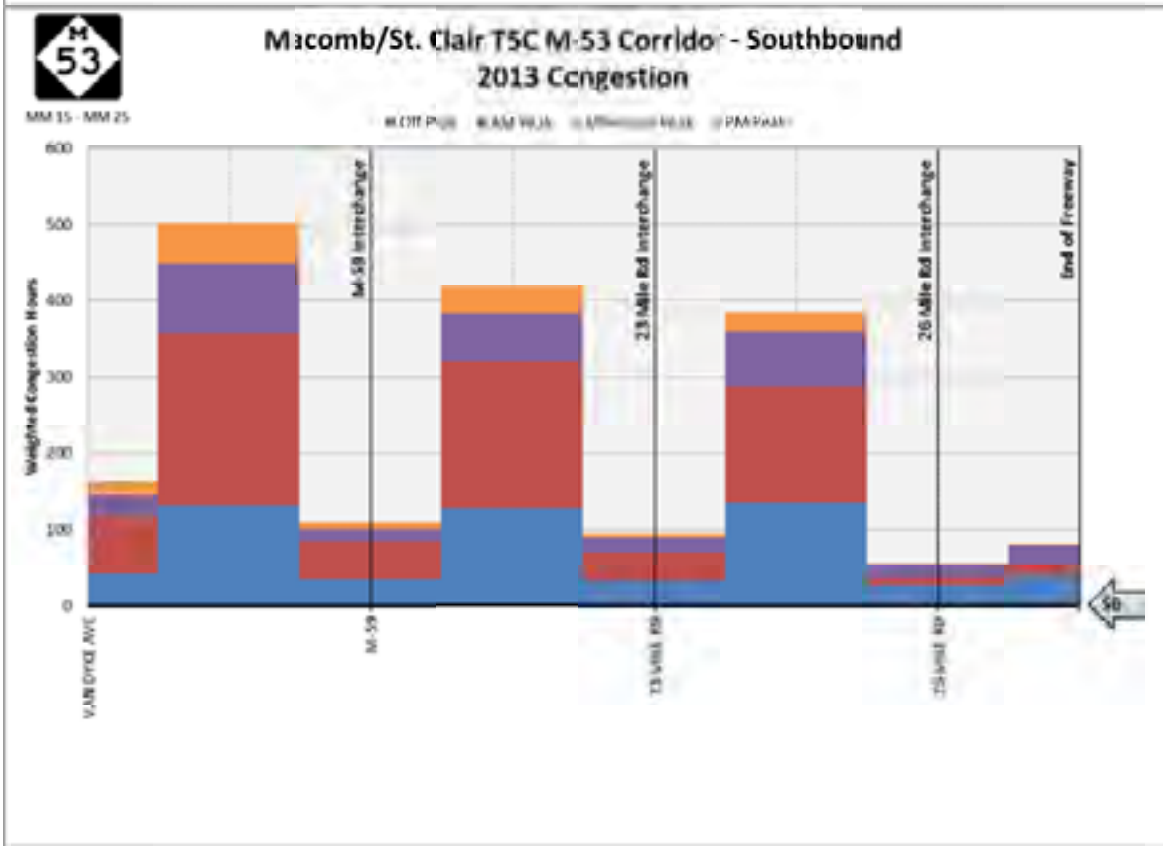
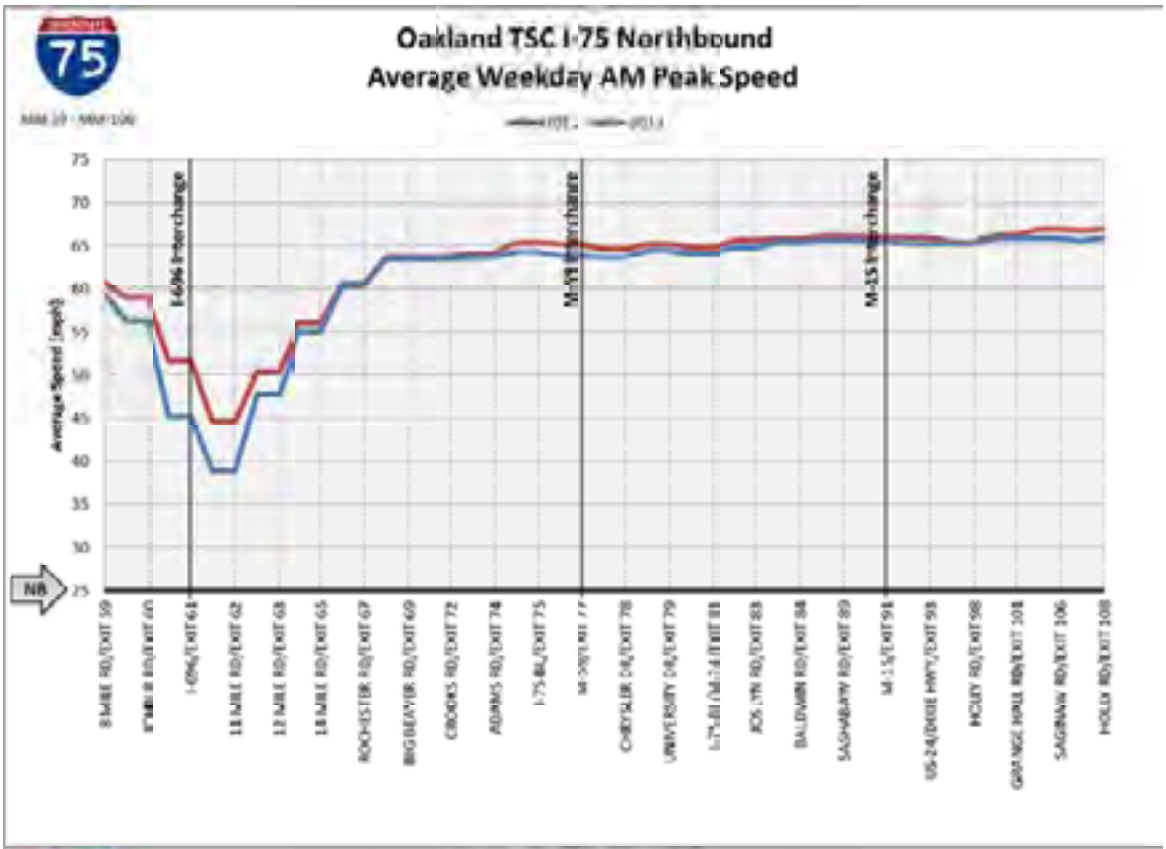

M 53
MM 15 - MM 25
Macomb/St. Clair T5C M-53 Corrido - Southbound
2013 Congestion
Weighted Congestion Hours
M-59 interchange
23 Mile Rd interchange
26 Mile Rd interchange
End of Freeway
VAN DYKE AVE
M-59
23 Mile Rd
26 Mile Rd

Figure 53

Oakland TSC I-75 Corridor
User Delay Cost
2012 Recurring
2012 Non Recurring
2013 Recurring
$7,000,000
$6,000,000
$5,000,000
$4,000,000
$3,000,000
$2,000,000
$1,000,000
$0
Oakland TSC I-75 Corridor
2012 User Delay Cost
Recurring
Non Recurring
48%
52%
Truck
$1,450,790
2012 UDC:
$45,179,445
Oakland TSC I-75 Corridor
2013 User Delay Cost
Recurring
Non Recurring
45%
55%
Truck
$1,667,128
2013 UDC:
$51,513,982

Figure 54


75
Oakland TSC I-75 Northbound
Average Weekday AM Peak Speed
Average Speed (mph)
NB
I-696 Interchange
M-59 Interchange
M-15 Interchange

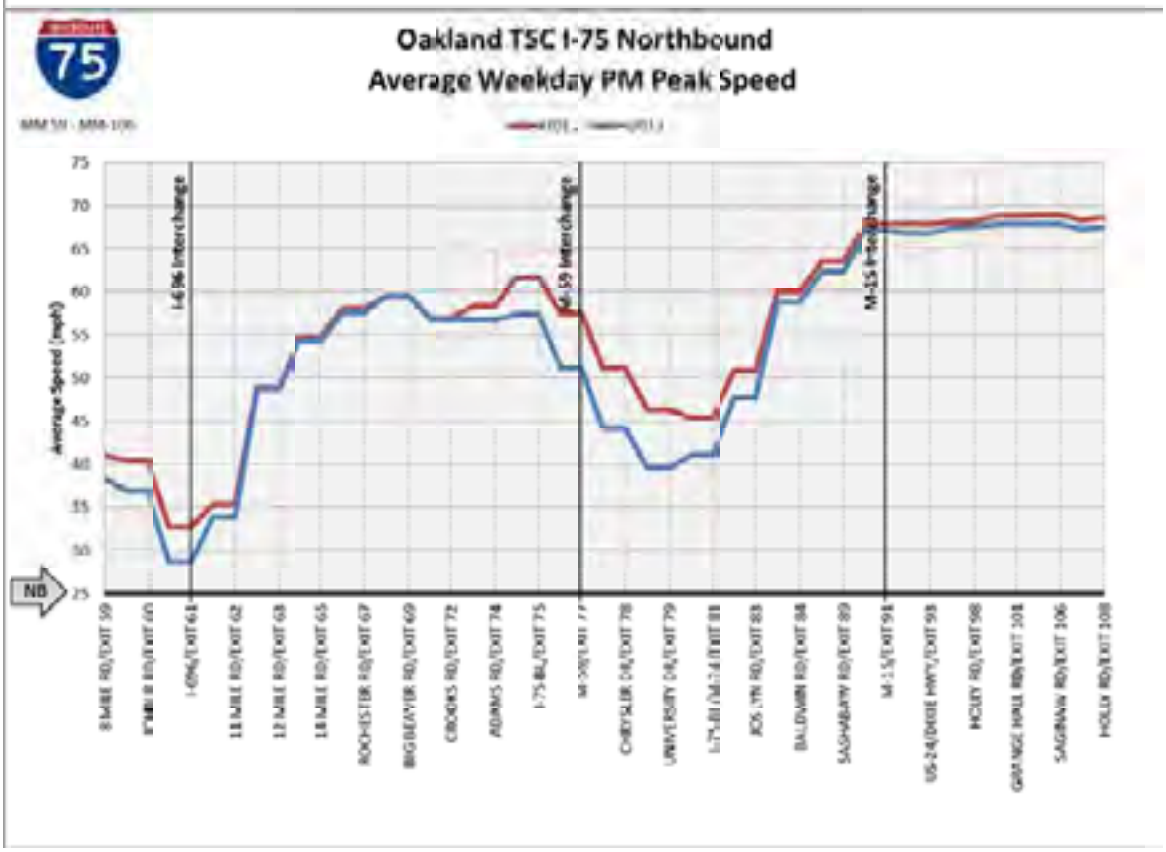
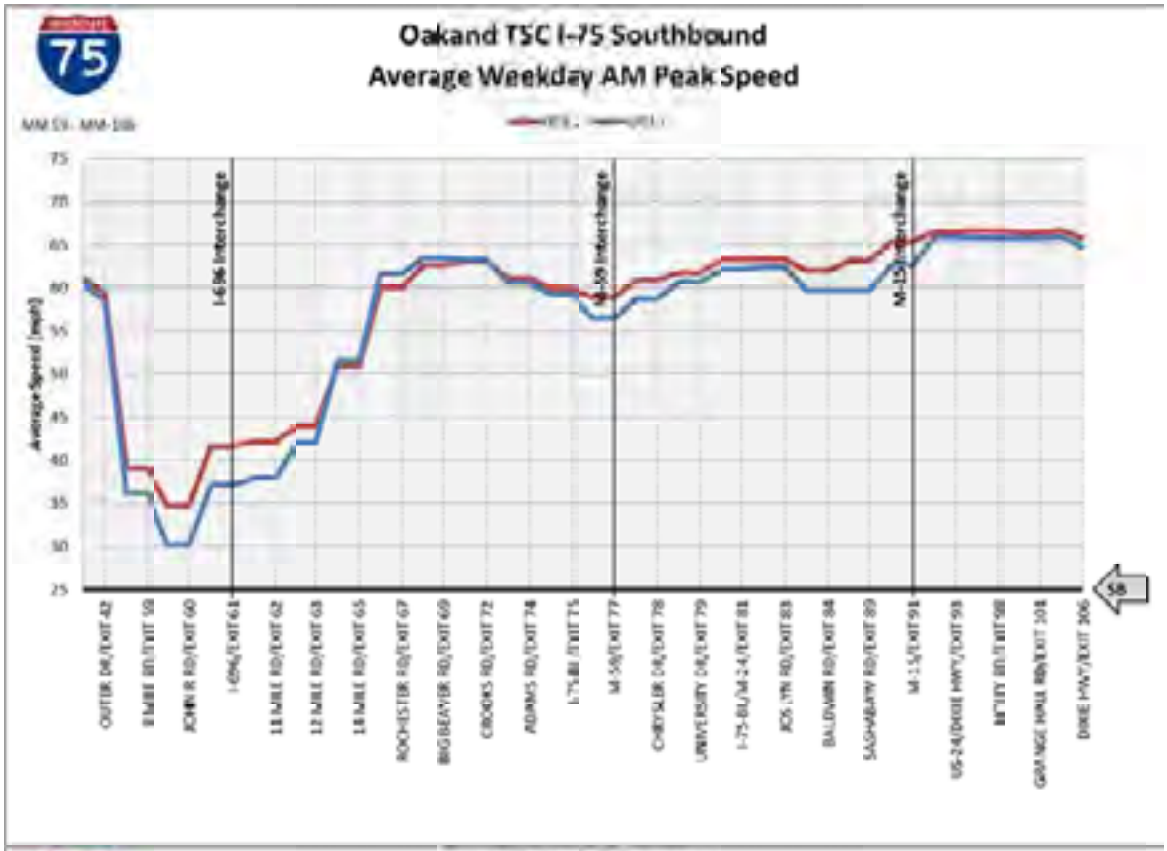

75
Oakland TSC I-75 Northbound
Average Weekday PM Peak Speed
Average Speed (mph)
NB
I-696 Interchange
M-59 Interchange
M-15 Interchange

Figure 55


Oakland TSC I-75 Southbound
Average Weekday AM Peak Speed
Average Speed (mph)
I-696 Interchange
M-59 Interchange
M-15 Interchange

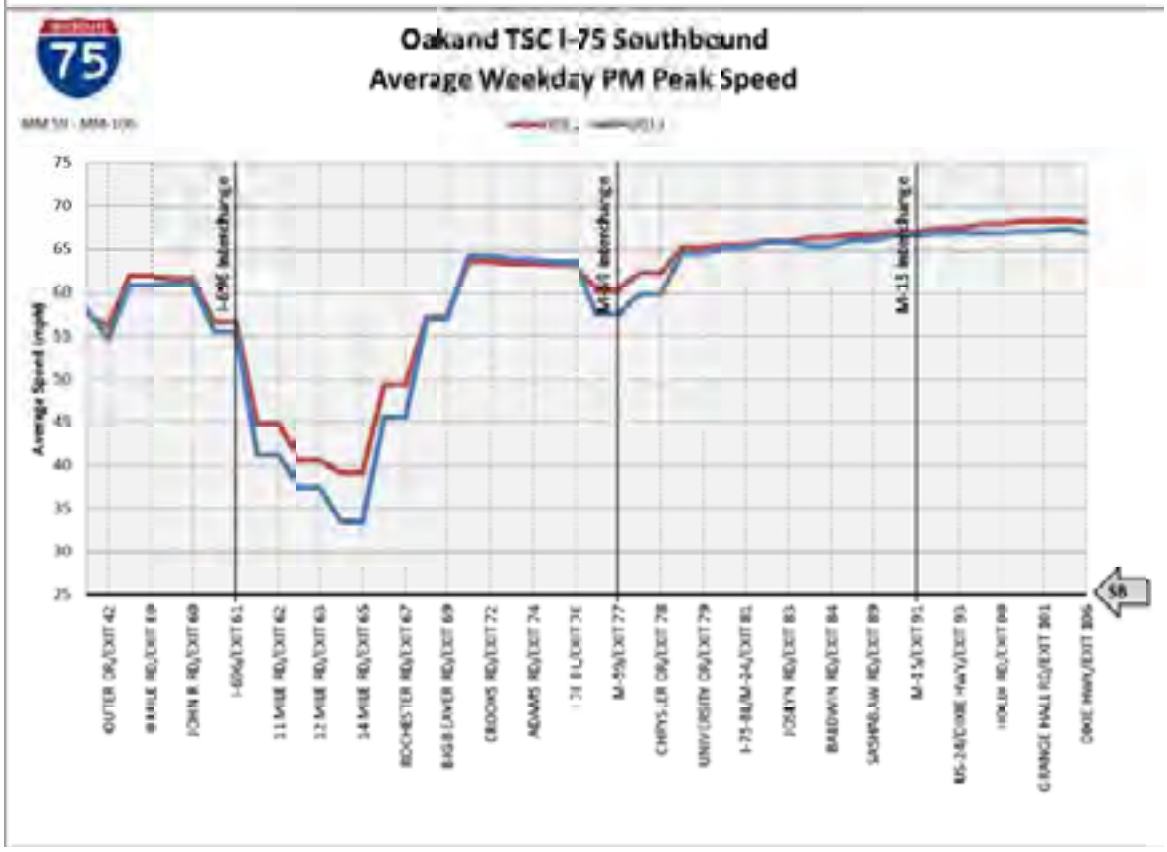
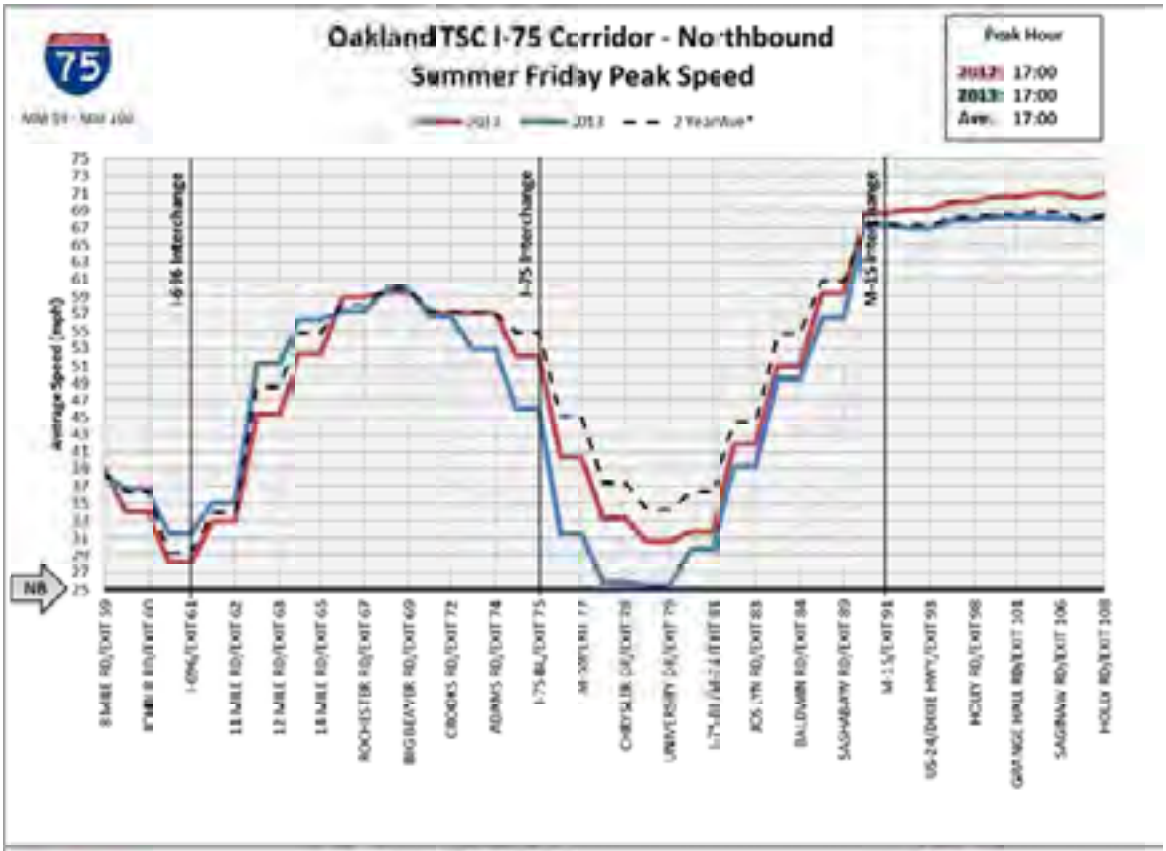

Oakland TSC I-75 Southbound
Average Weekday PM Peak Speed
Average Speed (mph)
I-696 Interchange
M-59 Interchange
M-15 Interchange

Figure 56


Oakland TSC I-75 Corridor - Northbound
Summer Friday Peak Speed
Peak Hour
2012: 17:00
2013: 17:00
Ave: 17:00
Average Speed (mph)
I-696 Interchange
I-75 Interchange
M-15 Interchange
NB

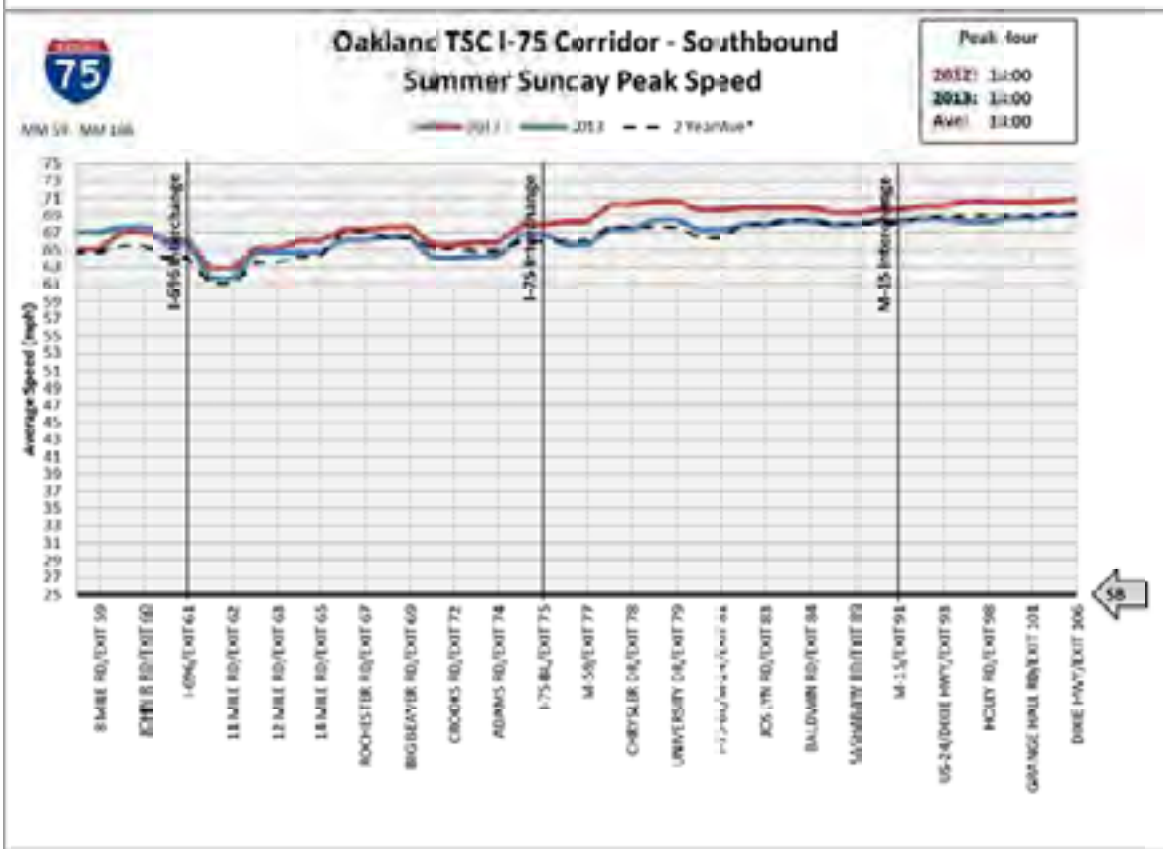
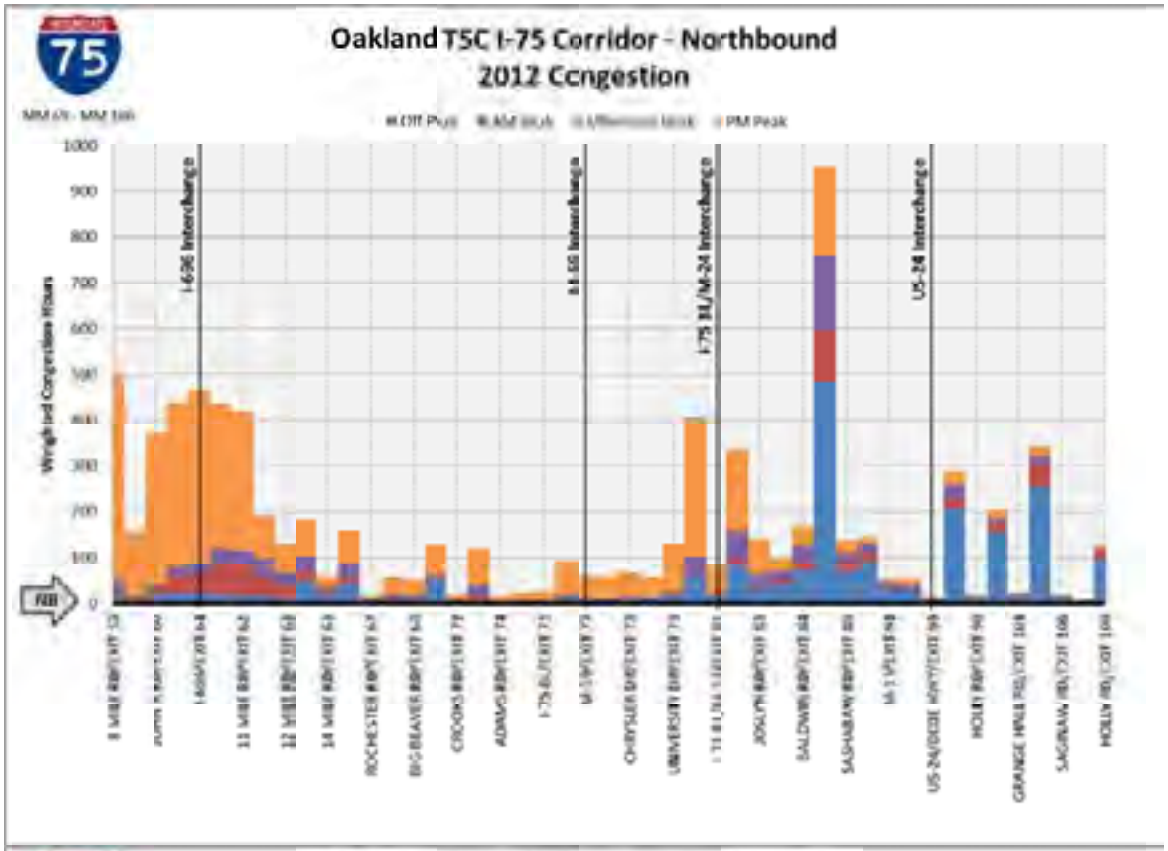

Oakland TSC I-75 Corridor - Southbound
Summer Sunday Peak Speed
Peak Hour
2012: 11:00
2013: 11:00
Ave: 11:00
Average Speed (mph)
I-696 Interchange
I-75 Interchange
M-15 Interchange
SB

Figure 57


75
Oakland TSC I-75 Corridor - Northbound
2012 Congestion
Weighted Congestion Hours
I-696 Interchange
M-59 Interchange
I-75 BL/M-24 Interchange
US-24 Interchange
NB

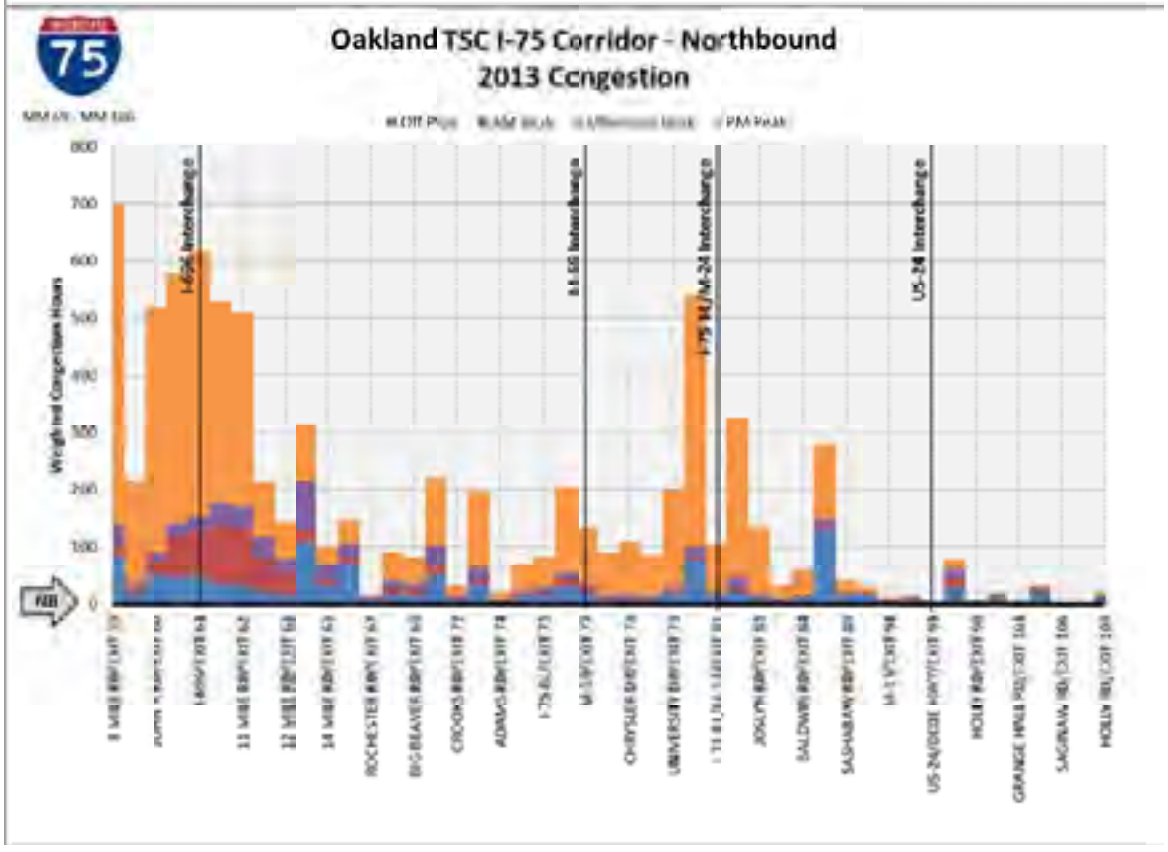
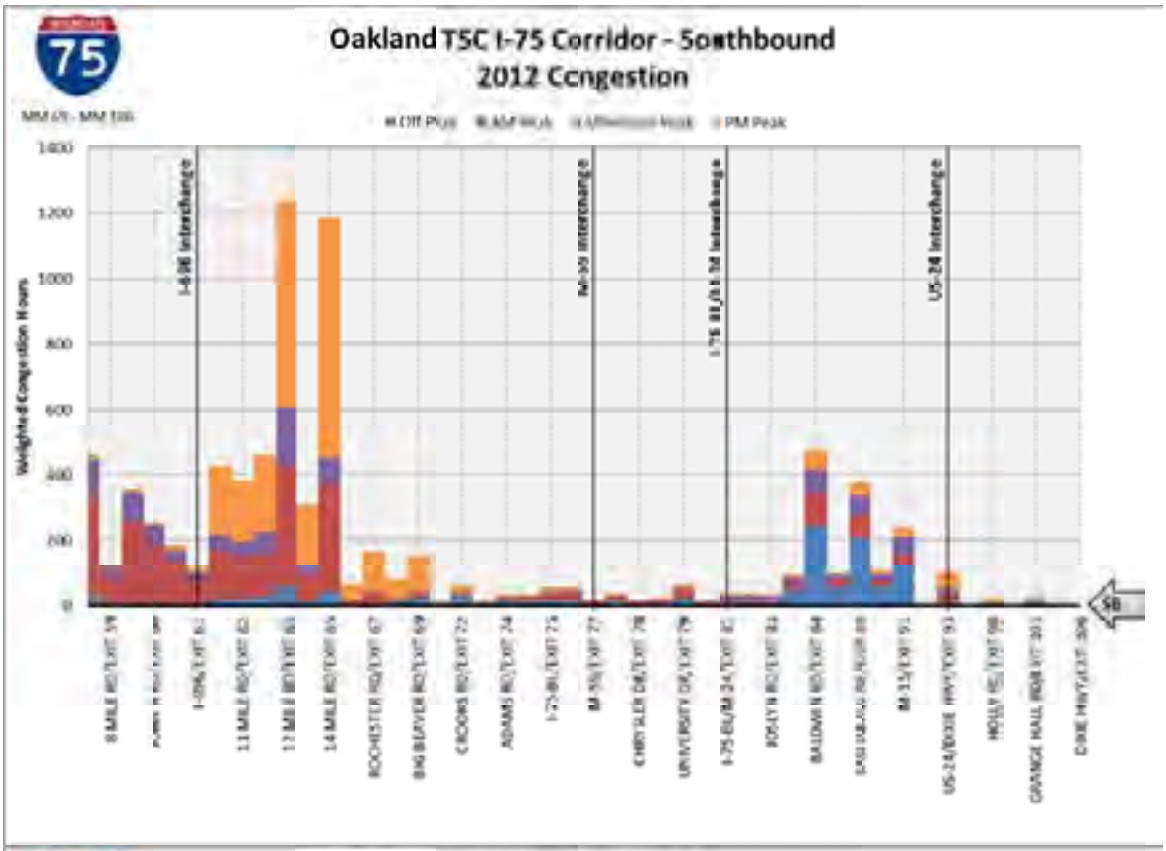

75
Oakland TSC I-75 Corridor - Northbound
2013 Congestion
Weighted Congestion Hours
I-696 Interchange
M-59 Interchange
I-75 BL/M-24 Interchange
US-24 Interchange
NB

Figure 58


75
Oakland TSC I-75 Corridor - Southbound
2012 Congestion
Weighted Congestion Hours
I-696 Interchange
M-59 Interchange
I-75 BL/Lt Td Interchange
US-24 Interchange
SB

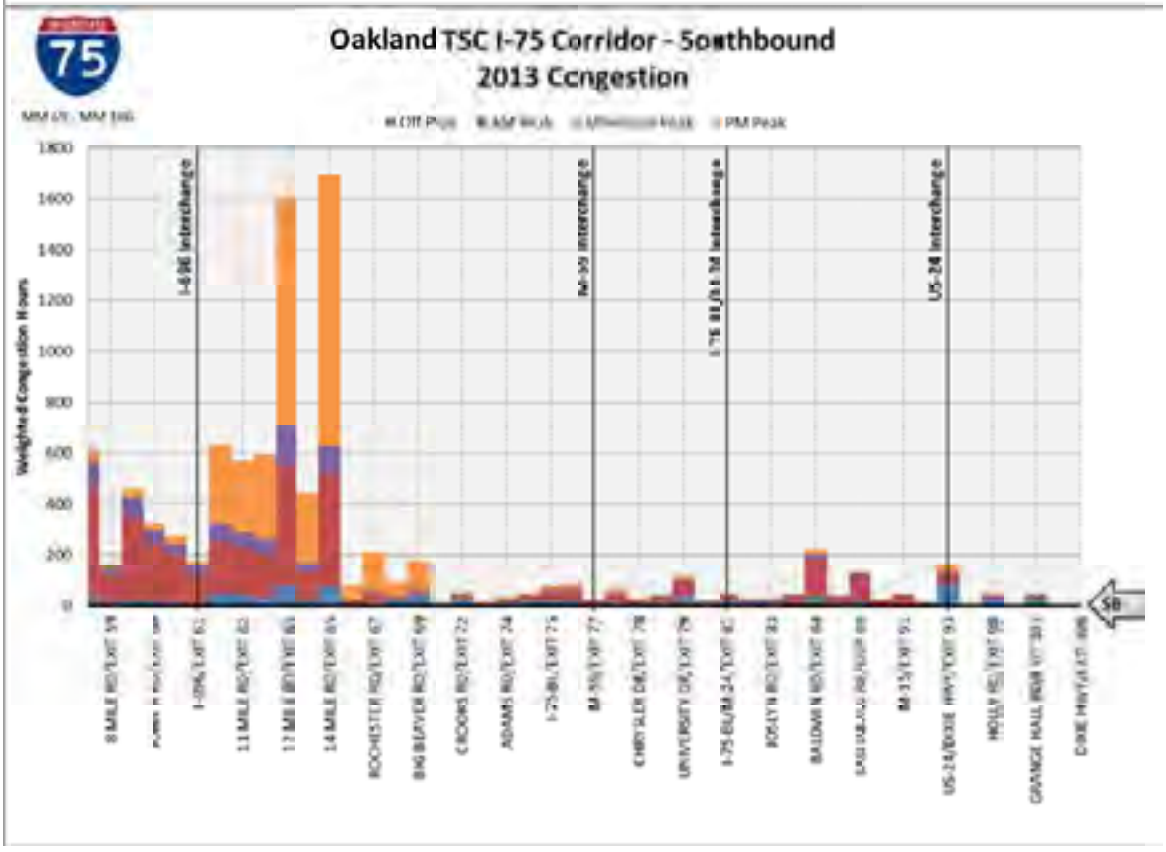

75
Oakland TSC I-75 Corridor - Southbound
2013 Congestion
Weighted Congestion Hours
I-696 Interchange
M-59 Interchange
I-75 BL/Lt Td Interchange
US-24 Interchange
SB

Figure 59

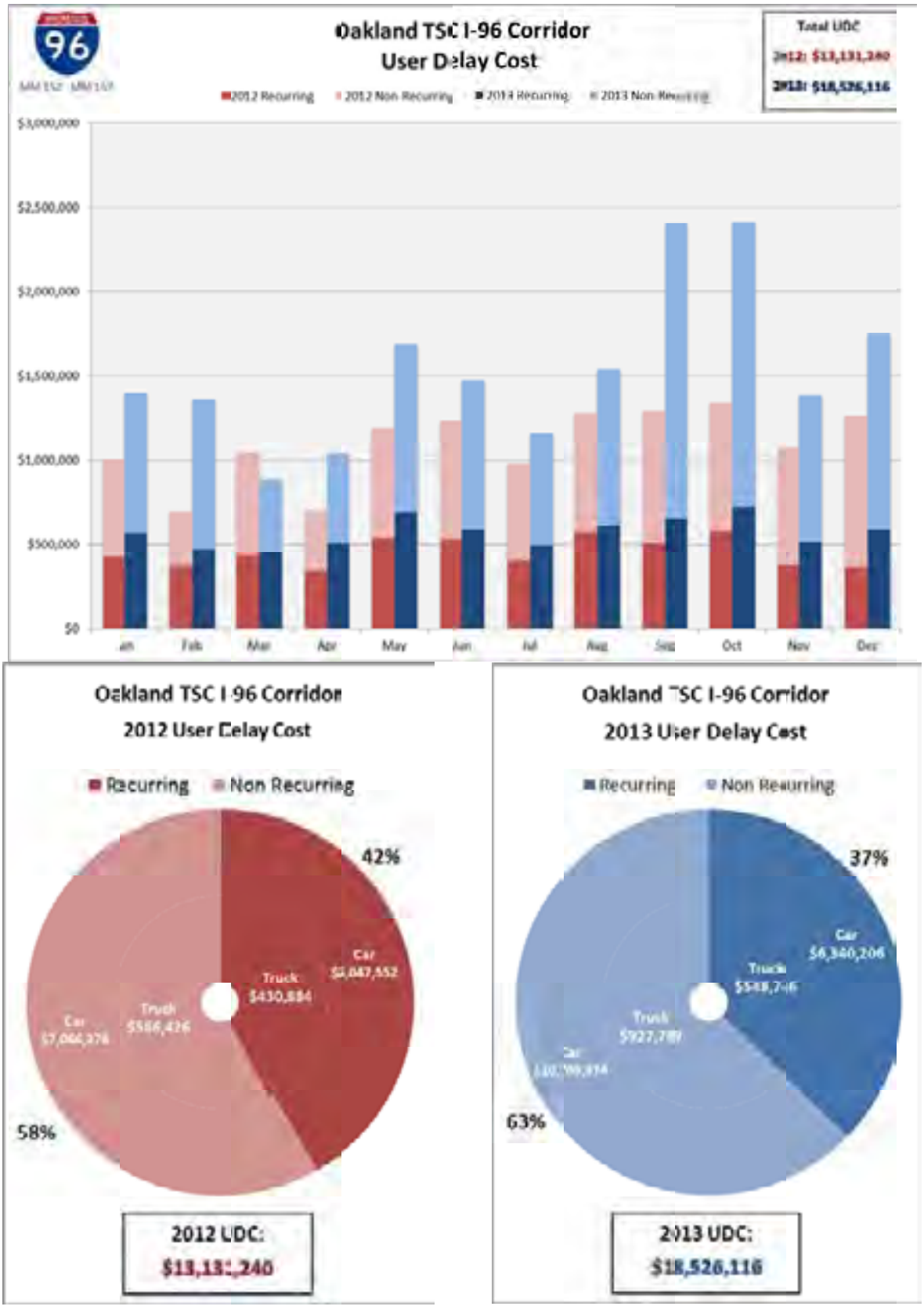
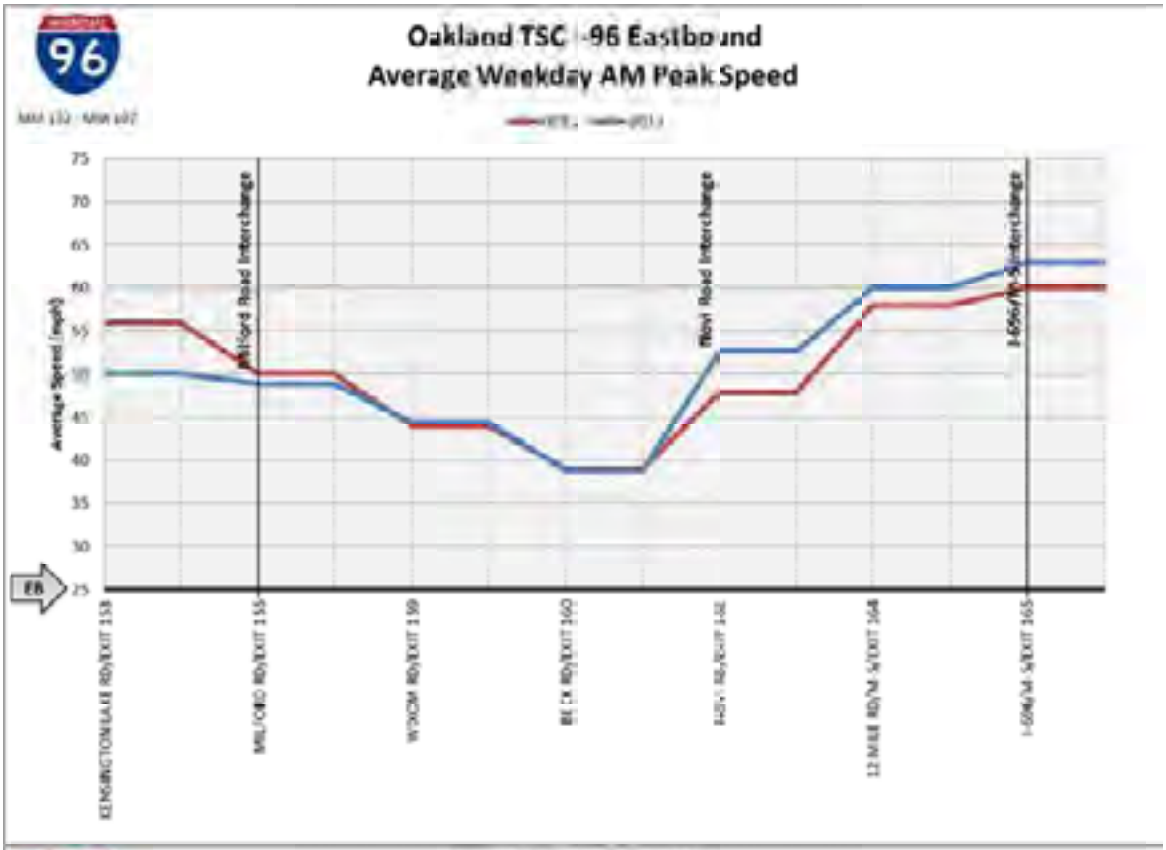

Oakland TSC I-96 Corridor
User Delay Cost
Total UDC
2012 Recurring
2012 Non Recurring
2013 Recurring
$3,000,000
$2,500,000
$2,000,000
$1,500,000
$1,000,000
$500,000
$0
Feb
Mar
Apr
May
Oct
Nov
Dec
Oakland TSC I 96 Corridor
2012 User Delay Cost
Recurring
Non Recurring
42%
58%
Truck
$430,884
Truck
$566,426
2012 UDC:
Oakland TSC I-96 Corridor
2013 User Delay Cost
Recurring
Non Recurring
37%
63%
Car
$6,340,206
Truck
$927,789
2013 UDC:
$18,526,116

Figure 60


96
Oakland TSC -96 Eastbound
Average Weekday AM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
30
25
EB
Milford Road Interchange
Novi Road Interchange
I-696/M-5 Interchange

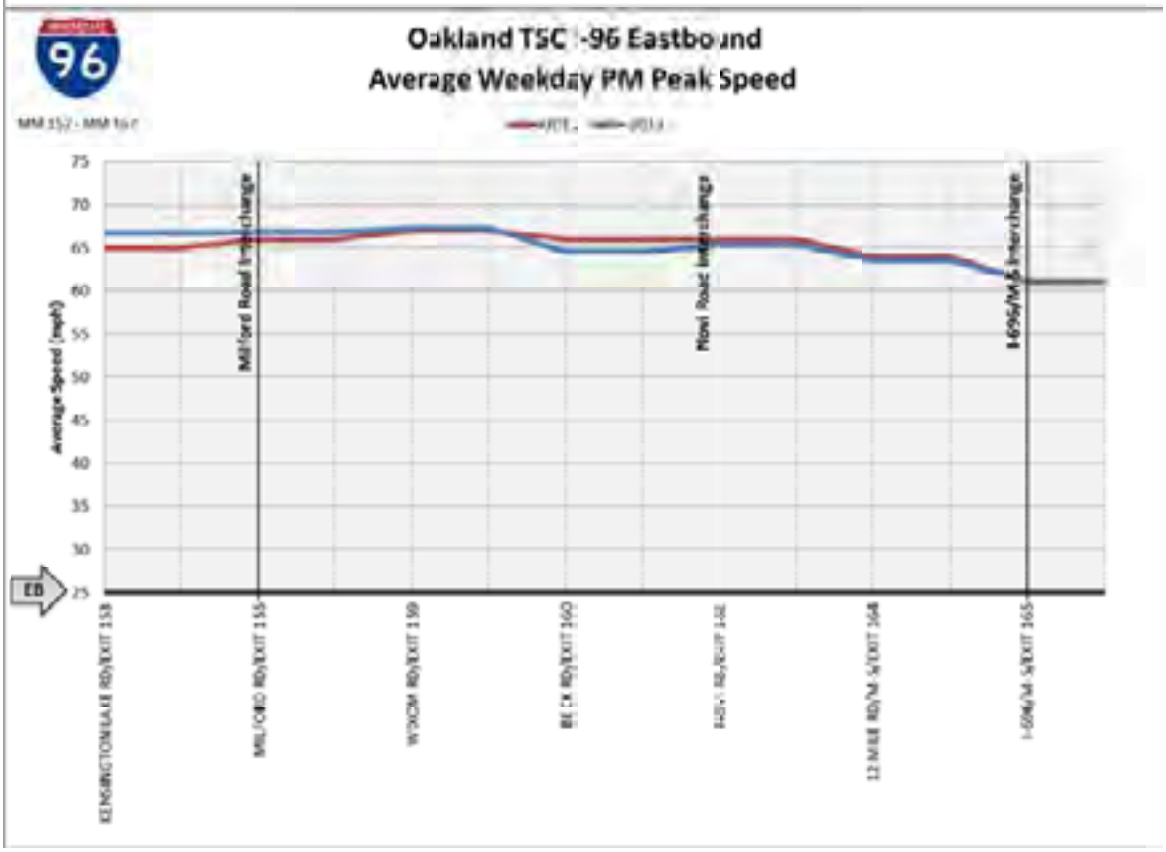
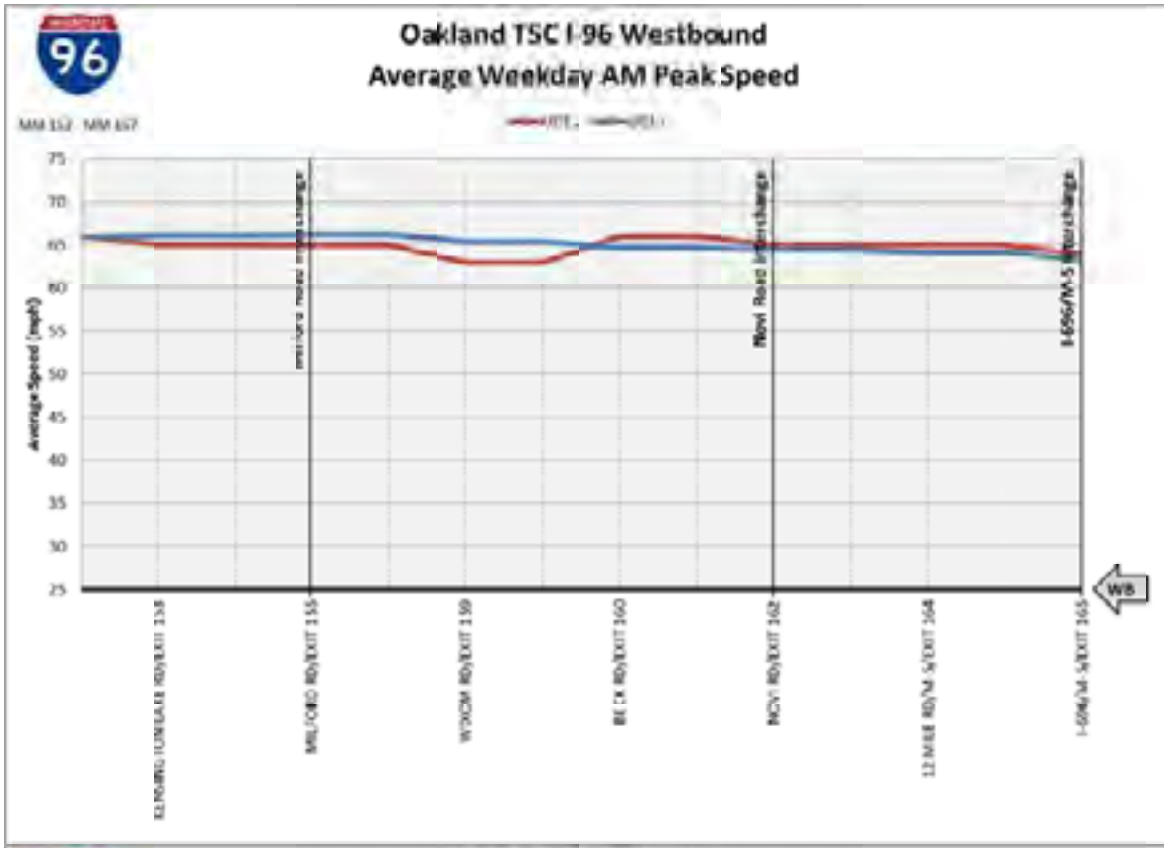

96
Oakland TSC -96 Eastbound
Average Weekday PM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
30
25
EB
Milford Road Interchange
Novi Road Interchange
I-696/M-5 Interchange

Figure 61


Oakland TSC I-96 Westbound
Average Weekday AM Peak Speed
Average Speed (mph)
Novi Road Interchange
I-696/M-5 Interchange
WB

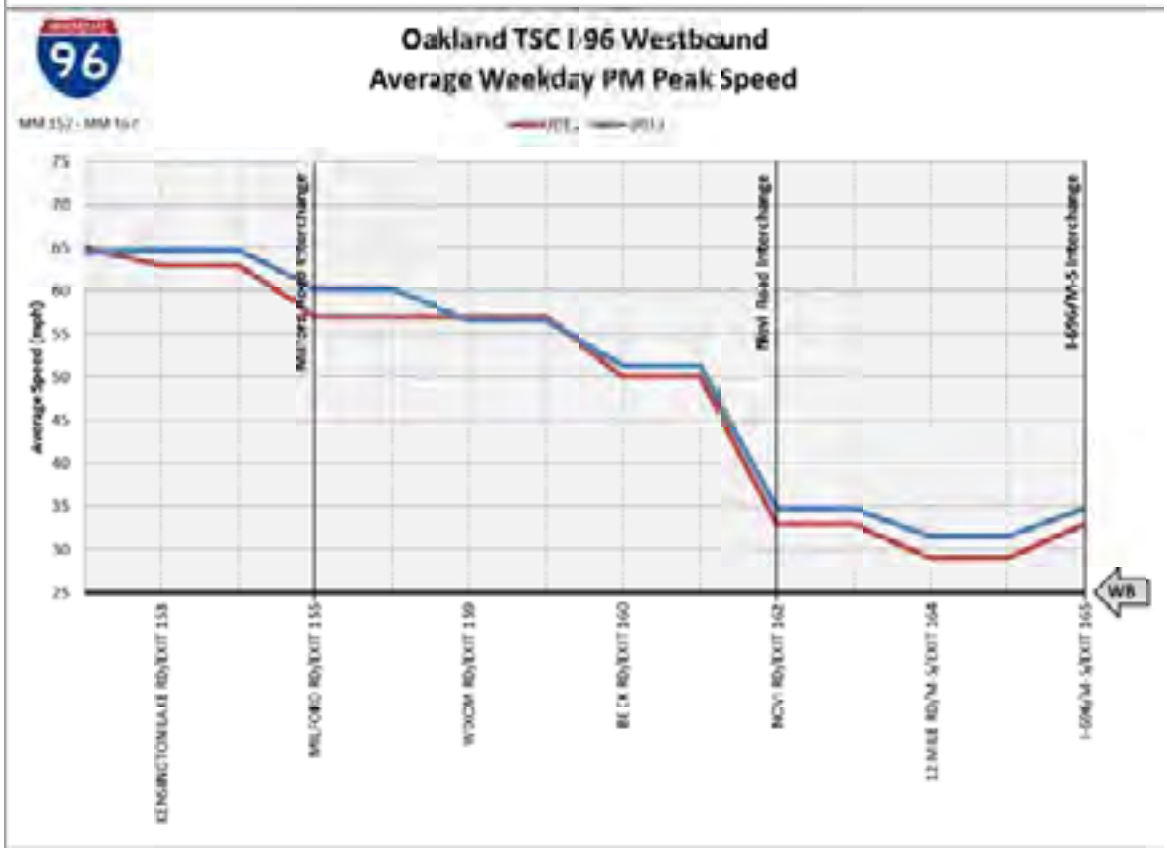
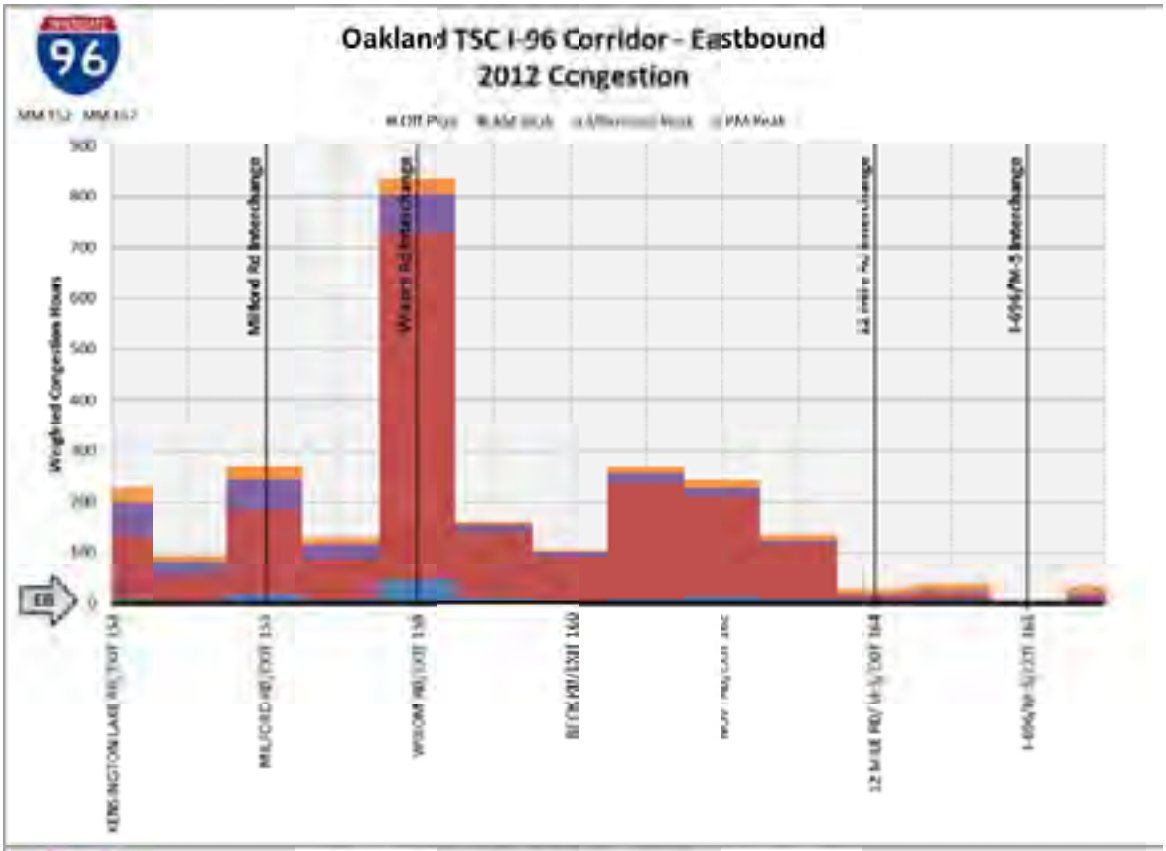

Oakland TSC I-96 Westbound
Average Weekday PM Peak Speed
Average Speed (mph)
Novi Road Interchange
I-696/M-5 Interchange
WB

Figure 62


96
Oakland TSC I-96 Corridor - Eastbound
2012 Congestion
Weighted Congestion Hours
Milford Rd Interchange
Wixom Rd Interchange
I-696/M-5 Interchange

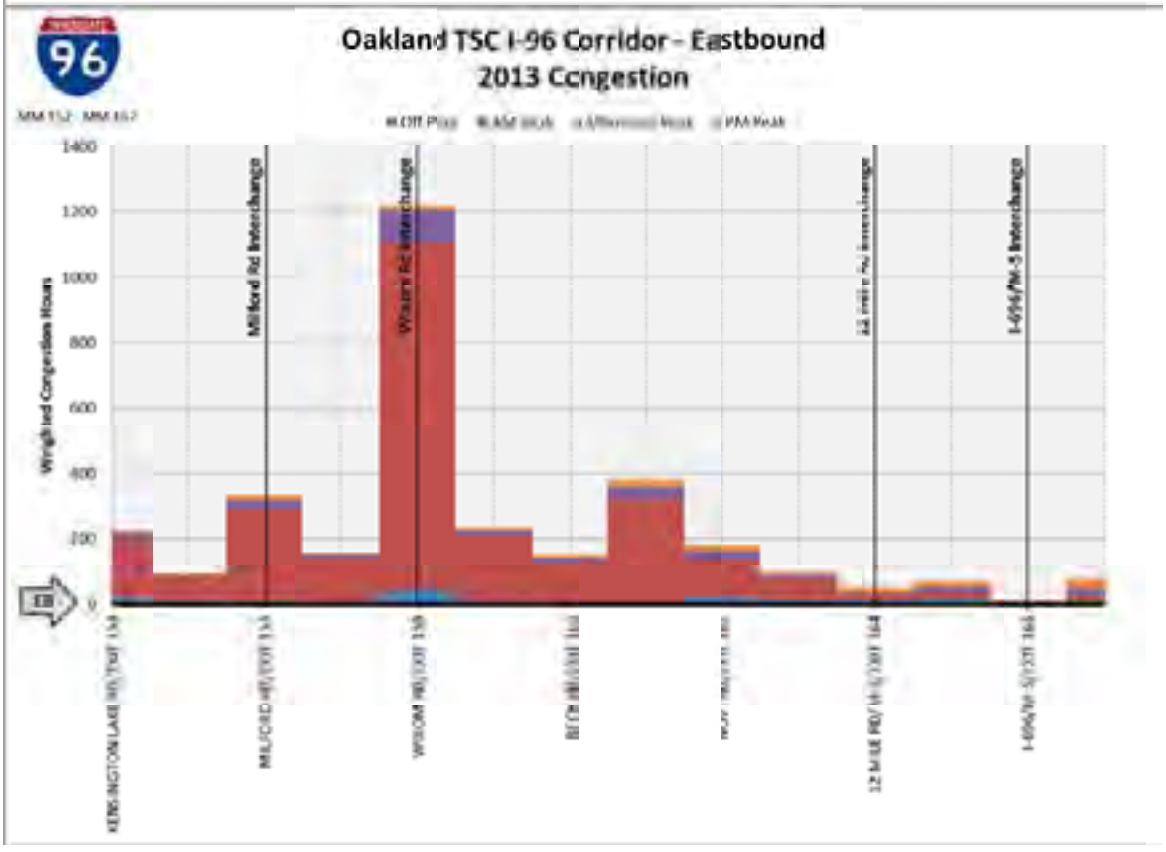
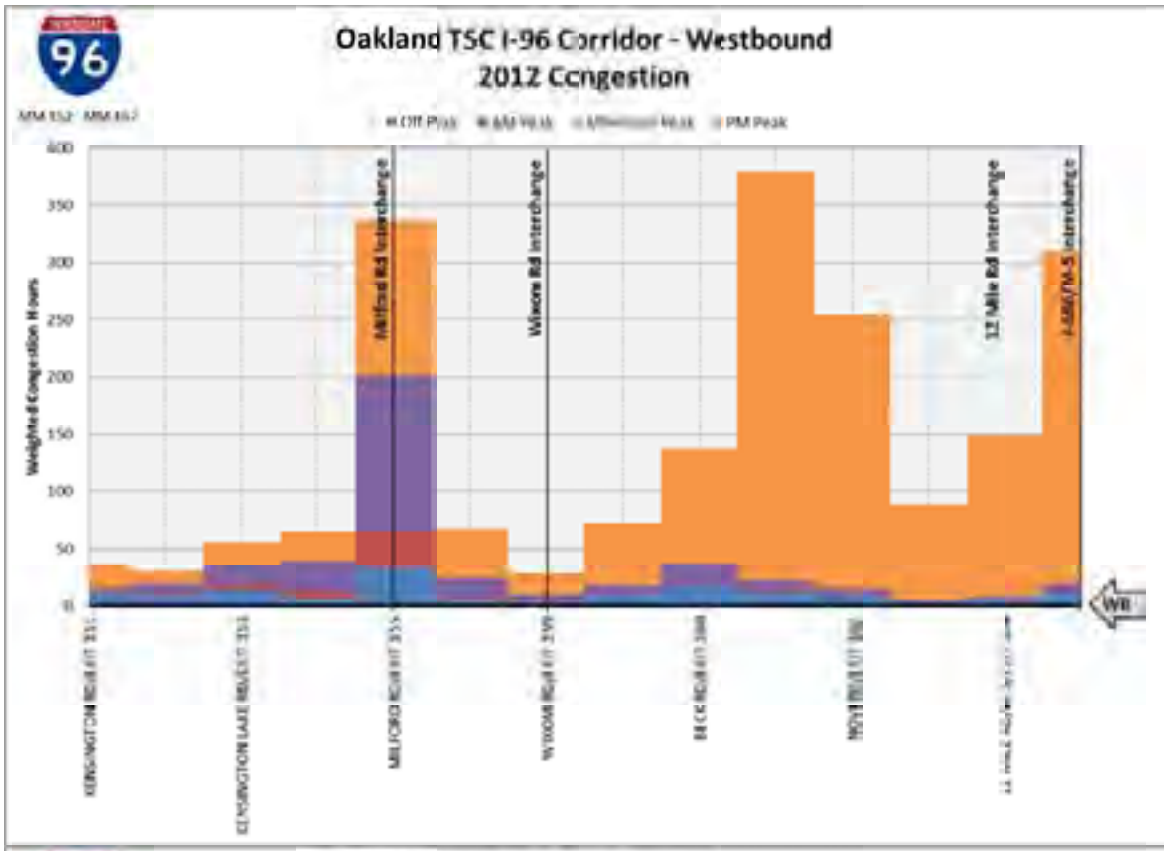

96
Oakland TSC I-96 Corridor - Eastbound
2013 Congestion
Weighted Congestion Hours
Milford Rd Interchange
Wixom Rd Interchange
I-696/M-5 Interchange

Figure 63


Oakland TSC I-96 Corridor - Westbound
2012 Congestion
Weighted Congestion Hours
Milford Rd Interchange
Wixom Rd Interchange
12 Mile Rd Interchange
I-696/M-5 Interchange
WB

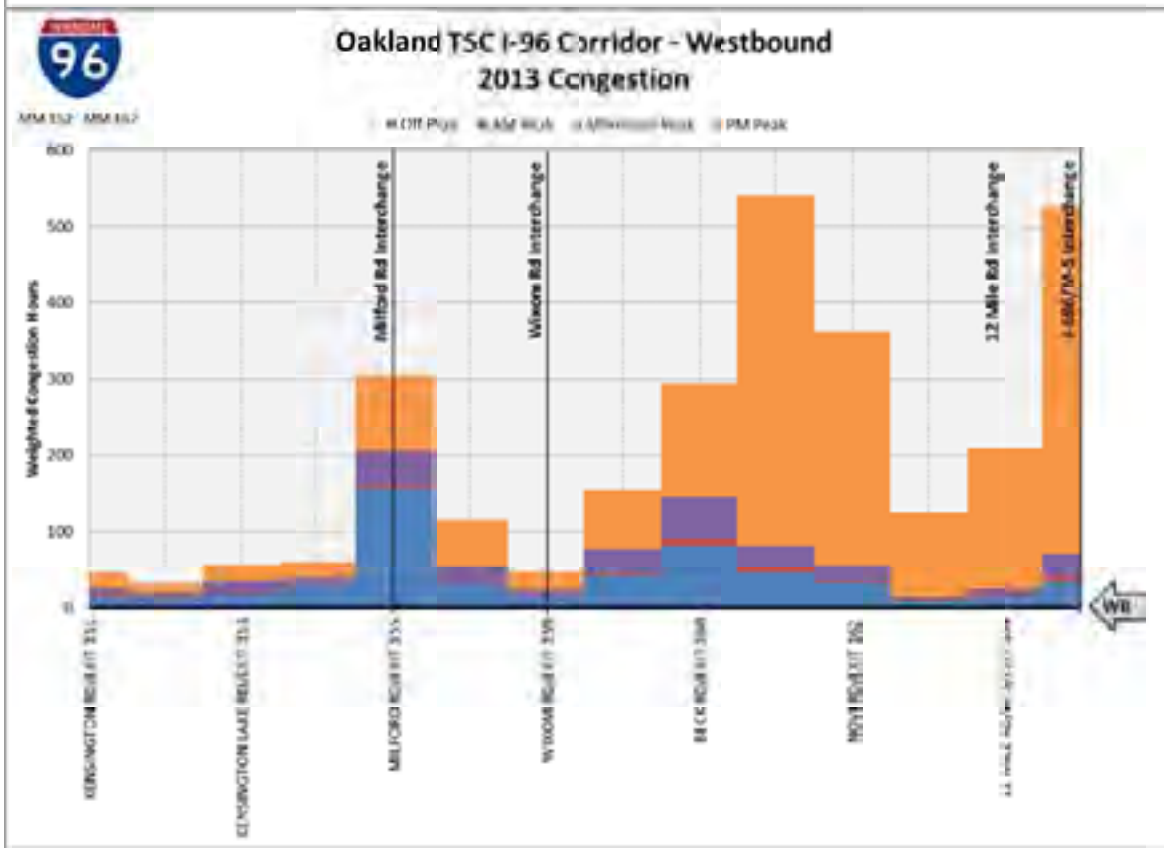
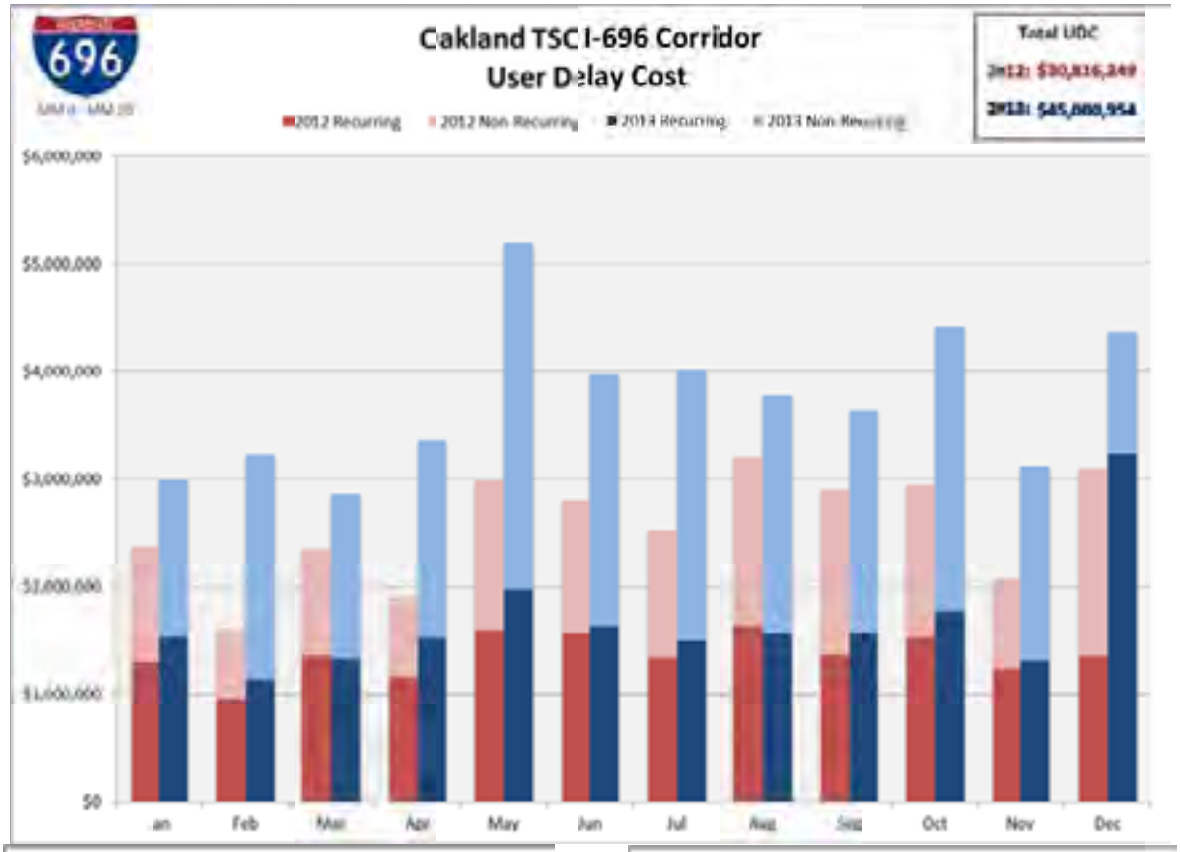
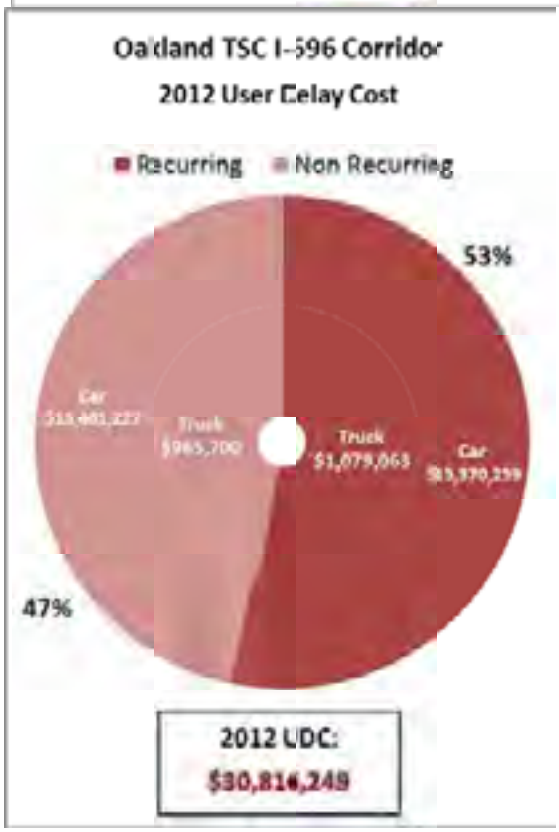

Oakland TSC I-96 Corridor - Westbound
2013 Congestion
Weighted Congestion Hours
Milford Rd Interchange
Wixom Rd Interchange
12 Mile Rd Interchange
I-696/M-5 Interchange
WB

Figure 64


696
Oakland TSC I-696 Corridor
User Delay Cost
2012 Recurring
2012 Non Recurring
2013 Recurring
Total UDC
$6,000,000
$5,000,000
$4,000,000
$3,000,000
$2,000,000
$1,000,000
$0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec


Oakland TSC I-696 Corridor
2012 User Delay Cost
Recurring
Non Recurring
53%
47%
Truck
$1,079,063
Car
$965,700
2012 UDC:
$30,816,249

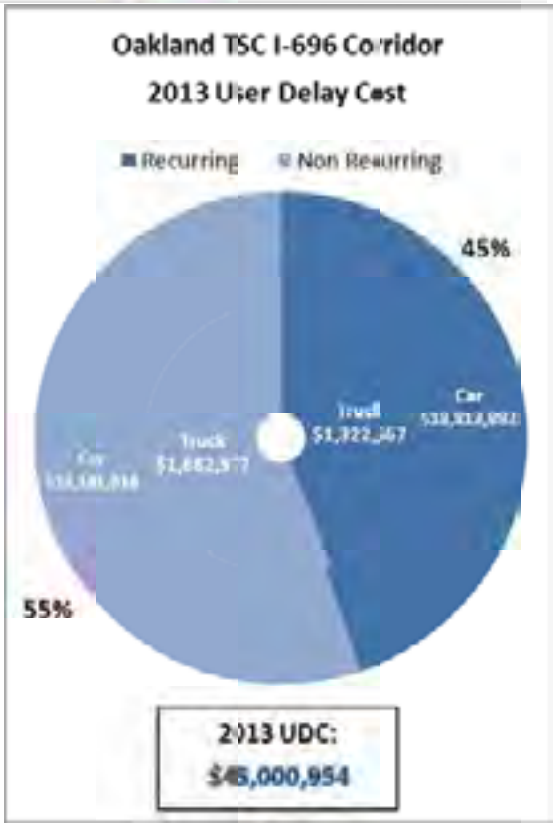
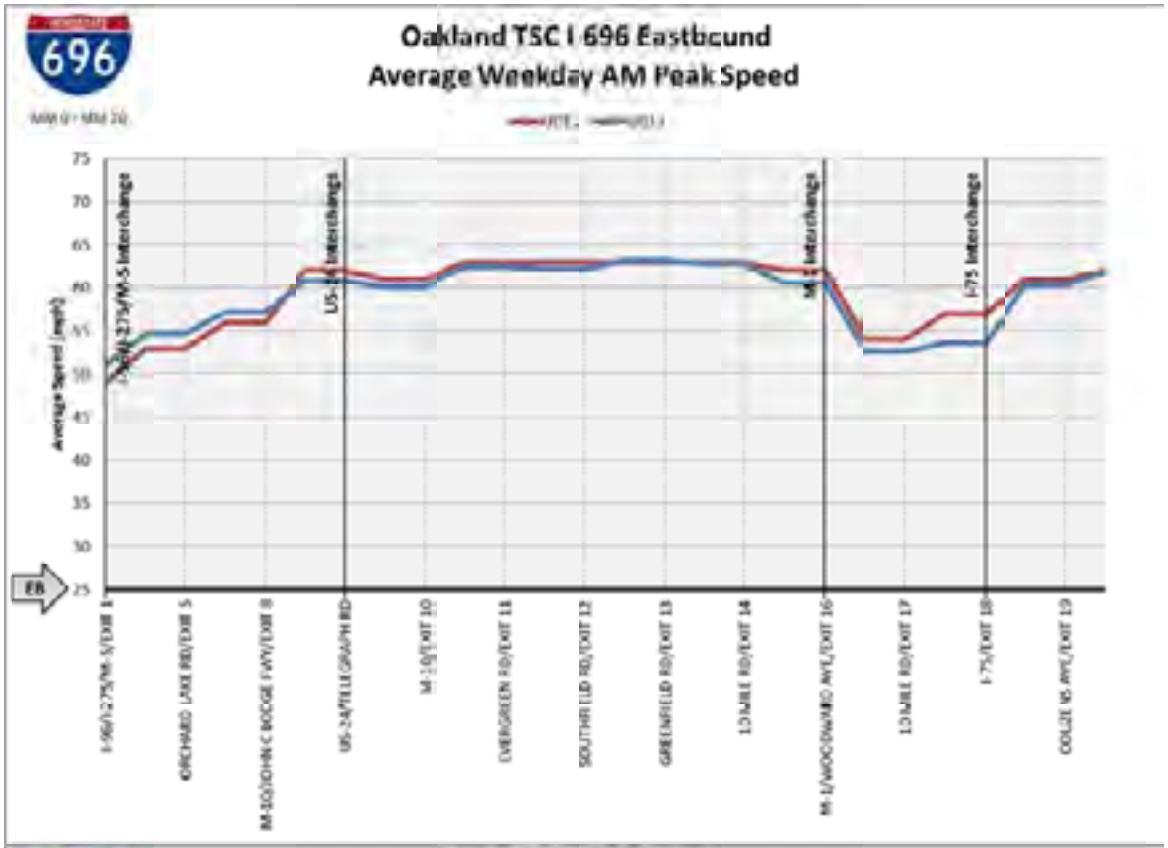

Oakland TSC I-696 Corridor
2013 User Delay Cost
Recurring
Non Recurring
45%
55%
Truck
$1,682,977
Car
2013 UDC:
$46,000,954

Figure 65


696
Oakland TSC I 696 Eastbound
Average Weekday AM Peak Speed
Average Speed (mph)
EB
I-96/I-275/M-5 Interchange
US-24 Interchange
M-1 Interchange
I-75 Interchange

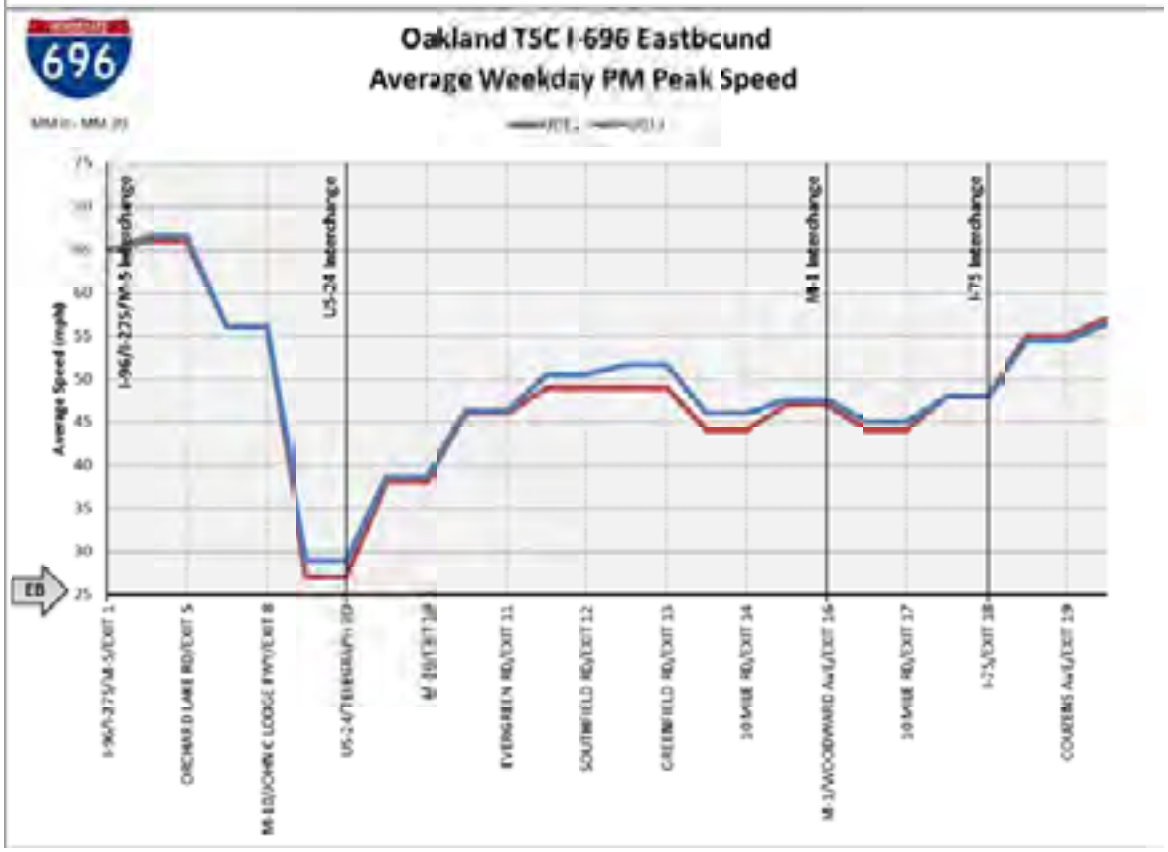
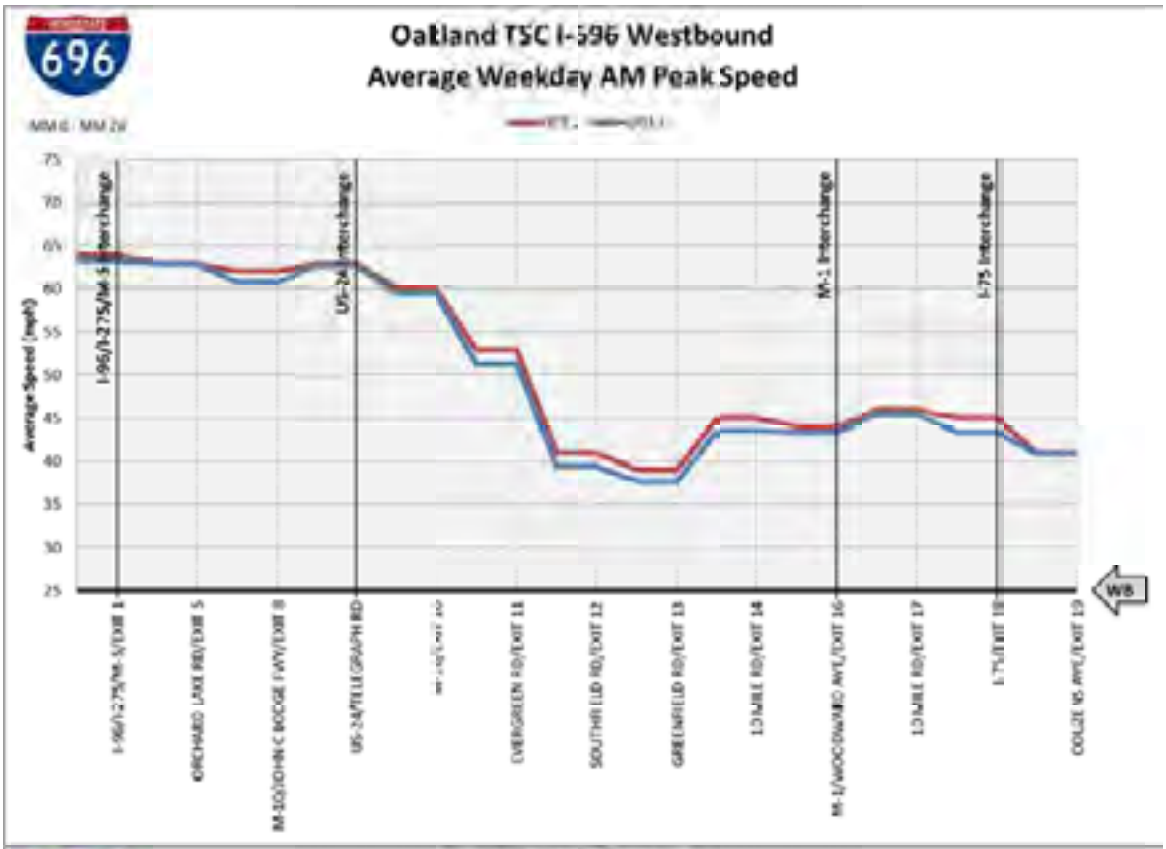

696
Oakland TSC I-696 Eastbound
Average Weekday PM Peak Speed
Average Speed (mph)
EB
I-96/I-275/M-5 Interchange
US-24 Interchange
M-1 Interchange
I-75 Interchange

Figure 66


696
Oakland TSC I-696 Westbound
Average Weekday AM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
30
25
I-96/I-275/M-5 Interchange
US-24 Interchange
M-1 Interchange
I-75 Interchange
WB

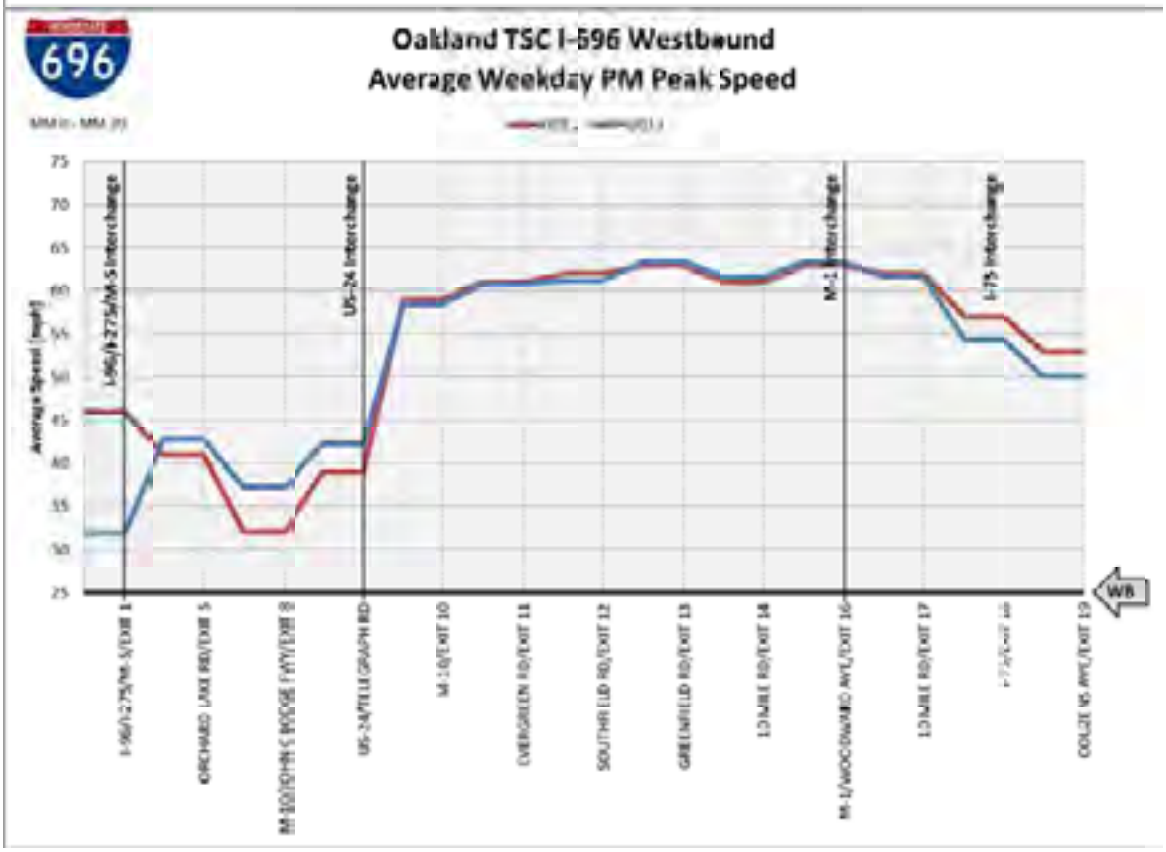
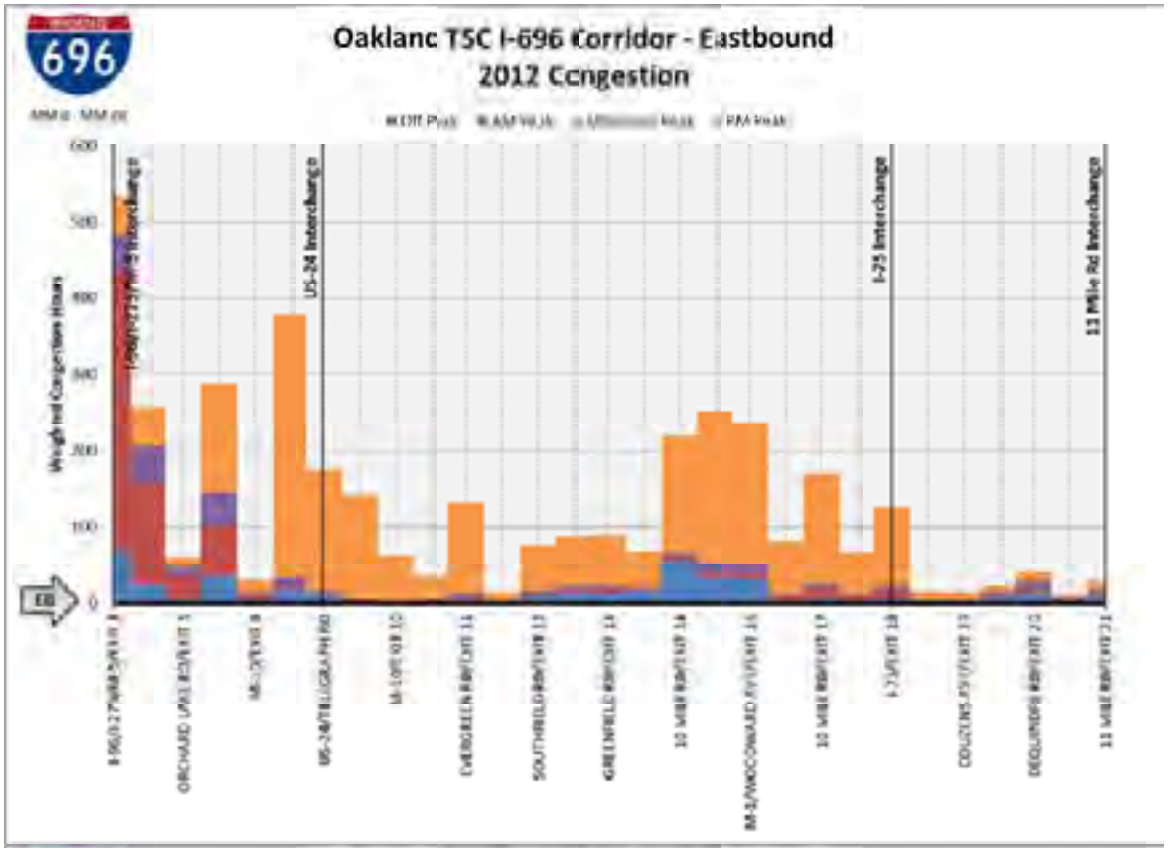

696
Oakland TSC I-696 Westbound
Average Weekday PM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
30
25
I-96/I-275/M-5 Interchange
US-24 Interchange
M-1 Interchange
I-75 Interchange
WB

Figure 67


696
Oaklanc TSC I-696 Corridor - Eastbound
2012 Congestion
Weighted Congestion Hours
EB
US-24 Interchange
I-75 Interchange
11 Mile Rd Interchange

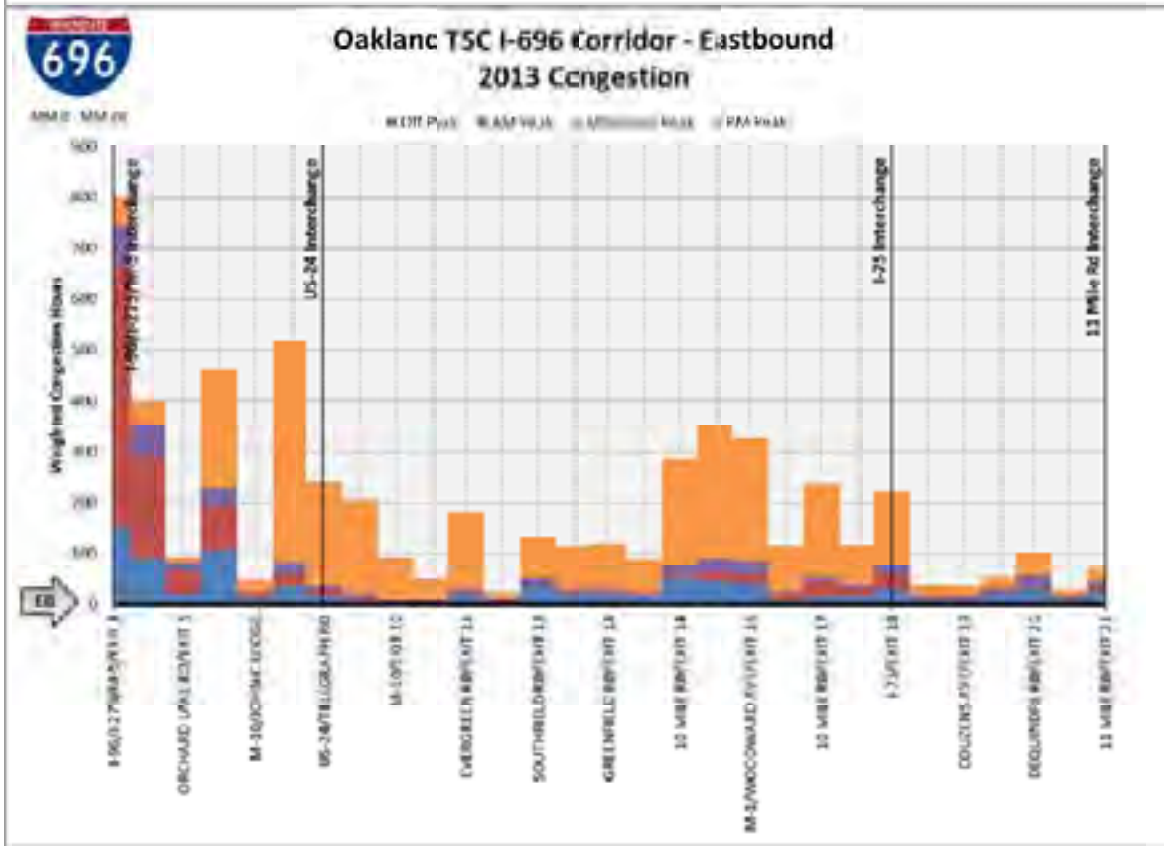
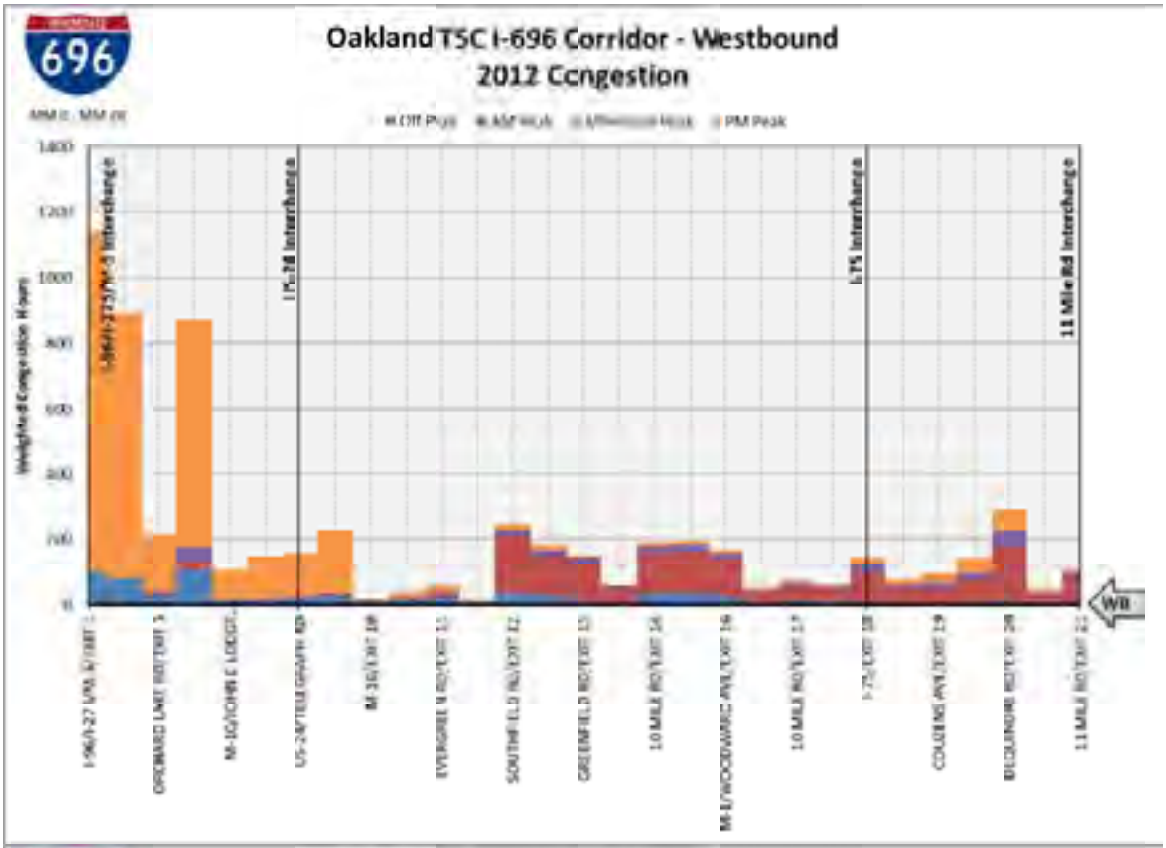

696
Oaklanc TSC I-696 Corridor - Eastbound
2013 Congestion
Weighted Congestion Hours
EB
US-24 Interchange
I-75 Interchange
11 Mile Rd Interchange

Figure 68


696
Oakland TSC I-696 Corridor - Westbound
2012 Congestion
Weighted Congestion Hours
I-75 Interchange
11 Mile Rd Interchange
WB

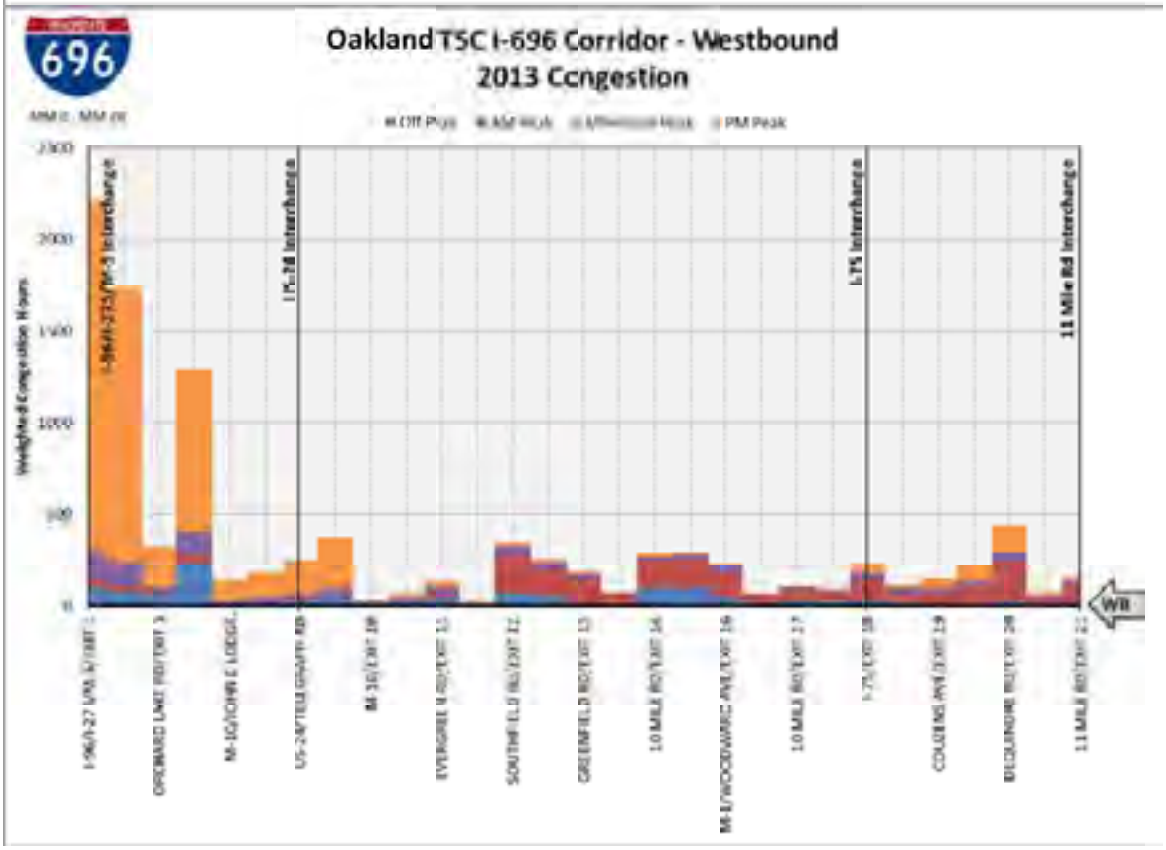

696
Oakland TSC I-696 Corridor - Westbound
2013 Congestion
Weighted Congestion Hours
I-75 Interchange
11 Mile Rd Interchange
WB

Figure 69

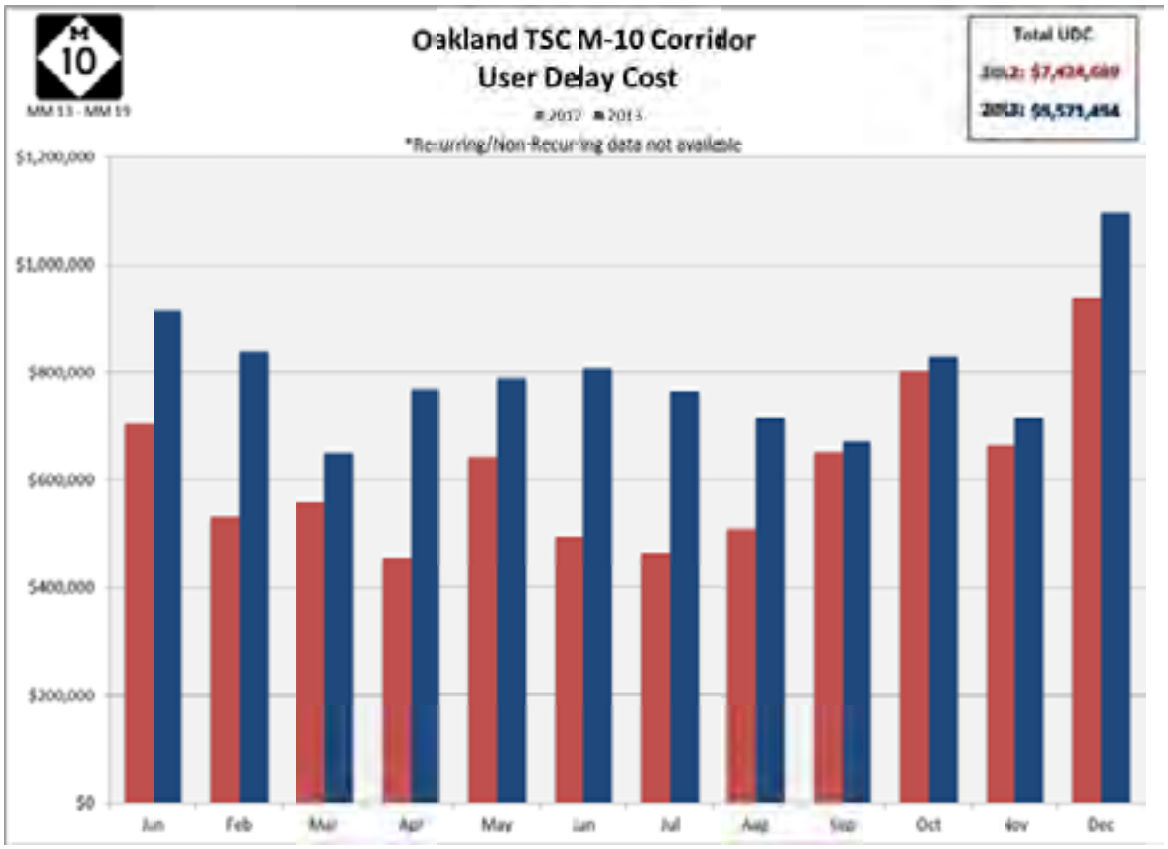
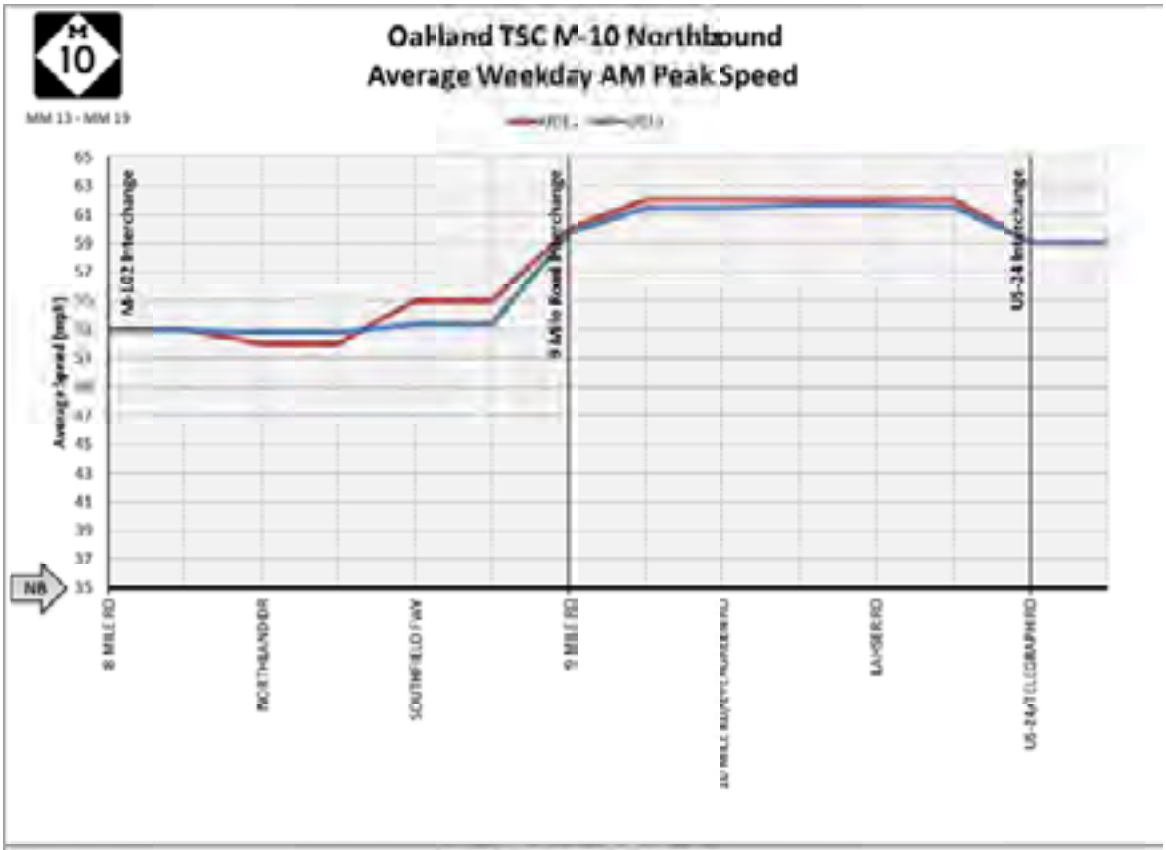

M
10
MM 13 - MM 19
Oakland TSC M-10 Corridor
User Delay Cost
*Recurring/Non-Recurring data not available
Total UDC
$1,200,000
$1,000,000
$800,000
$600,000
$400,000
$200,000
$0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

Figure 70


M 10
MM 13 - MM 19
Oakland TSC M-10 Northbound
Average Weekday AM Peak Speed
Average Speed (mph)
NB
8 MILE RD
NORTHLAND DR
SOUTHFIELD FWY
9 MILE RD
LAHSER RD
US-24 Interchange

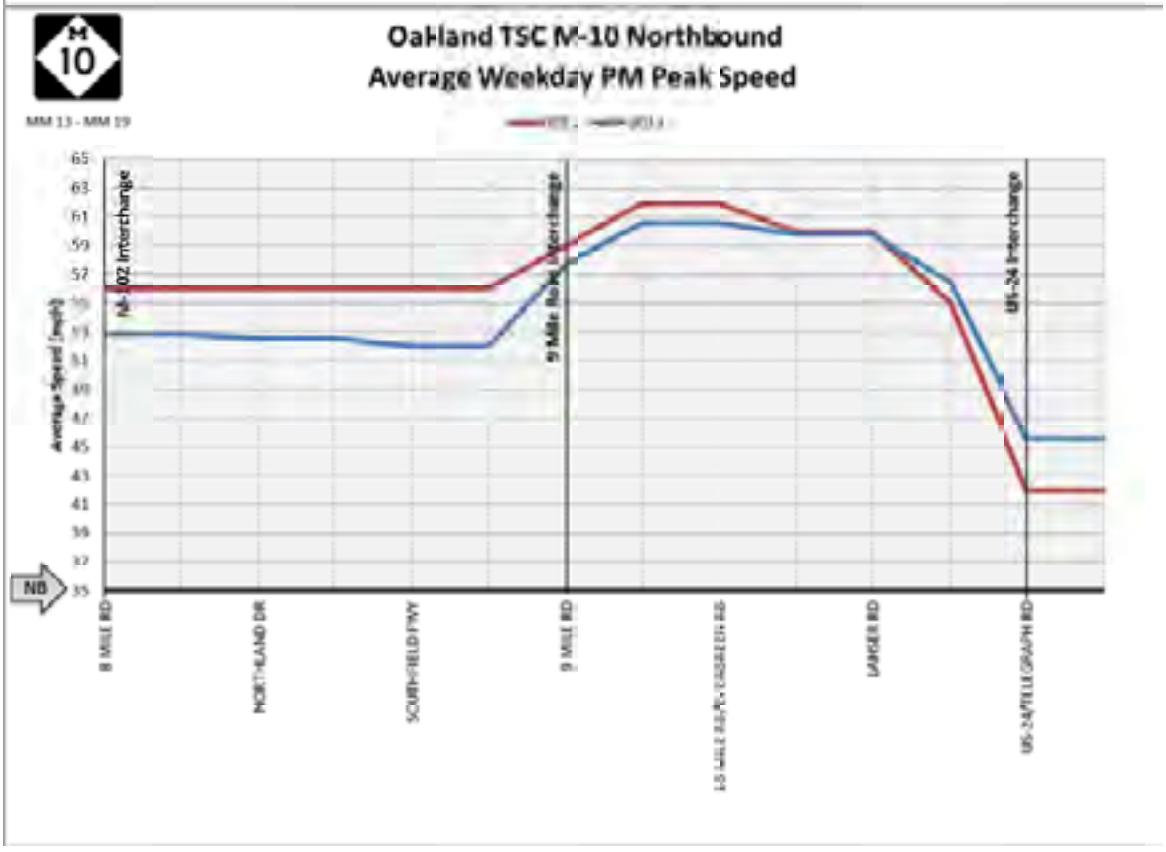
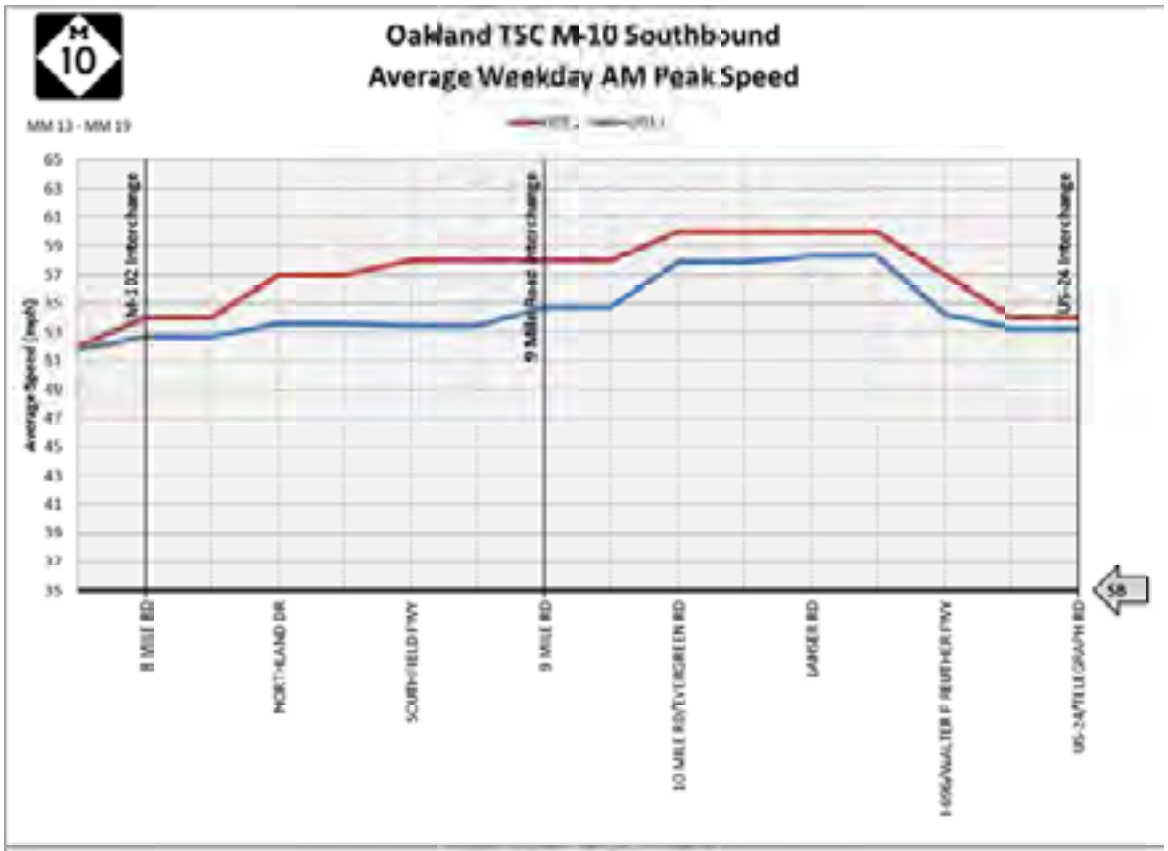

M 10
MM 13 - MM 19
Oakland TSC M-10 Northbound
Average Weekday PM Peak Speed
Average Speed (mph)
NB
8 MILE RD
NORTHLAND DR
SOUTHFIELD FWY
9 MILE RD
LAHSER RD
US-24 Interchange

Figure 71


Oakland TSC M-10 Southbound
Average Weekday AM Peak Speed
MM 13 - MM 19
Average Speed (mph)
M-102 Interchange
9 Mile Road Interchange
US-24 Interchange
8 MILE RD
NORTHLAND DR
SOUTHFIELD FWY
9 MILE RD
10 MILE RD/EVERGREEN RD
LAHSER RD
I-696/WALTER P REUTHER FWY
US-24/TELEGRAPH RD

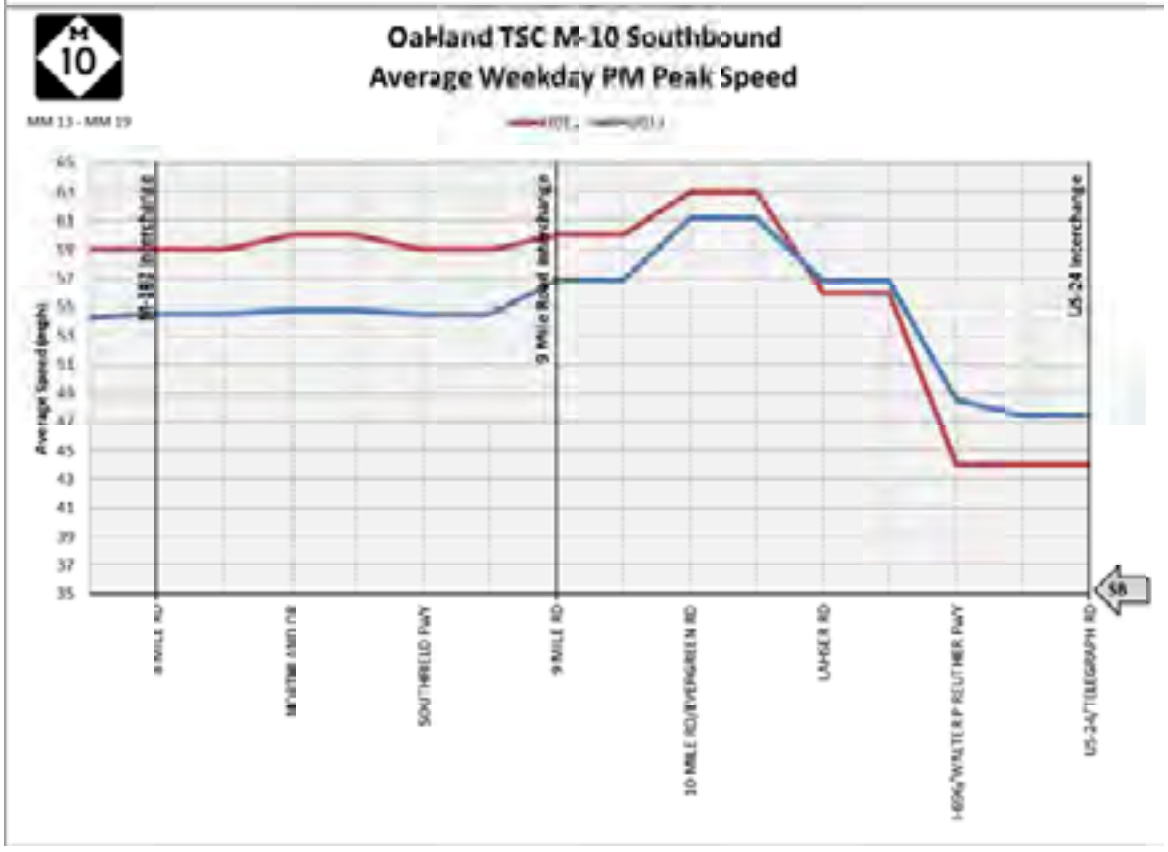
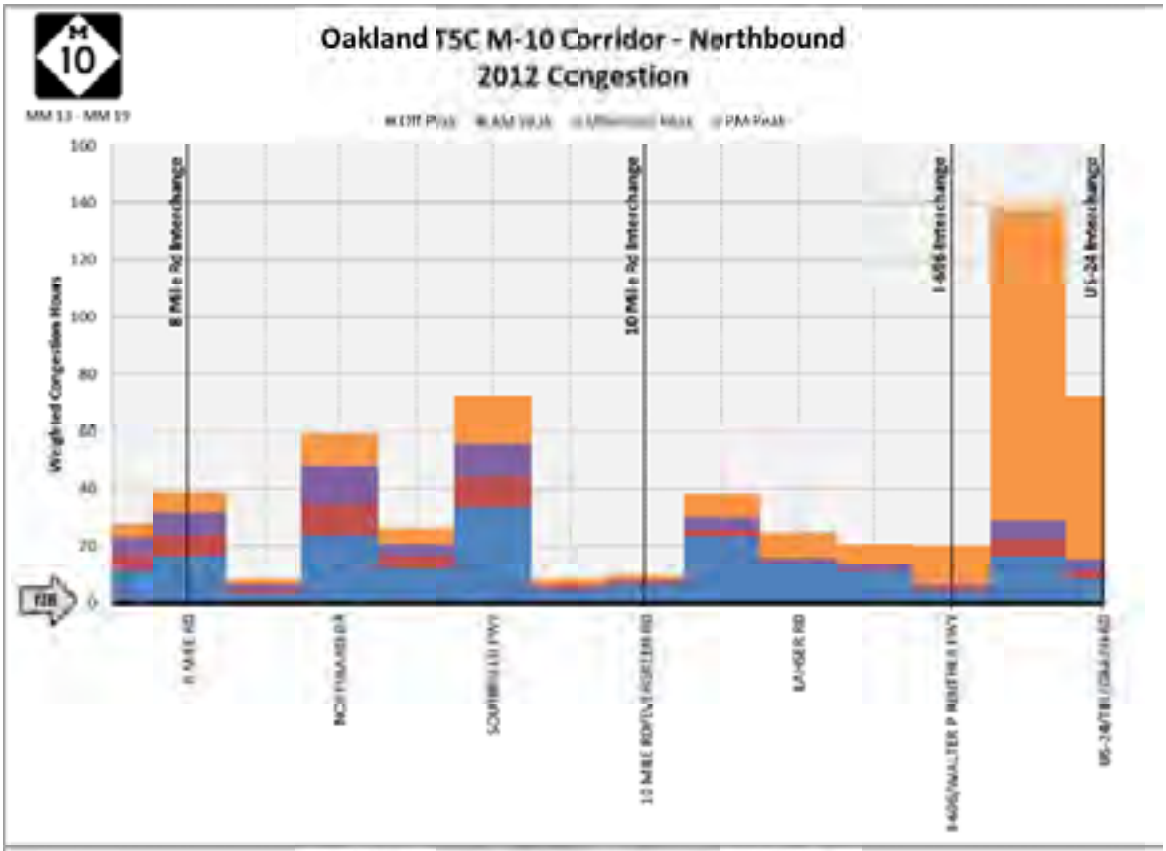

Oakland TSC M-10 Southbound
Average Weekday PM Peak Speed
MM 13 - MM 19
Average Speed (mph)
M-102 Interchange
9 Mile Road Interchange
US-24 Interchange
SOUTHFIELD FWY
9 MILE RD
10 MILE RD/EVERGREEN RD
LAHSER RD
I-696/WALTER P REUTHER FWY
US-24/TELEGRAPH RD

Figure 72


M 10
Oakland TSC M-10 Corridor - Northbound
2012 Congestion
MM 13 - MM 19
Weighted Congestion Hours
8 Mile Rd Interchange
10 Mile Rd Interchange
I-696 Interchange
US-24 Interchange
LAHSER RD
I-696/WALTER P REUTHER FWY

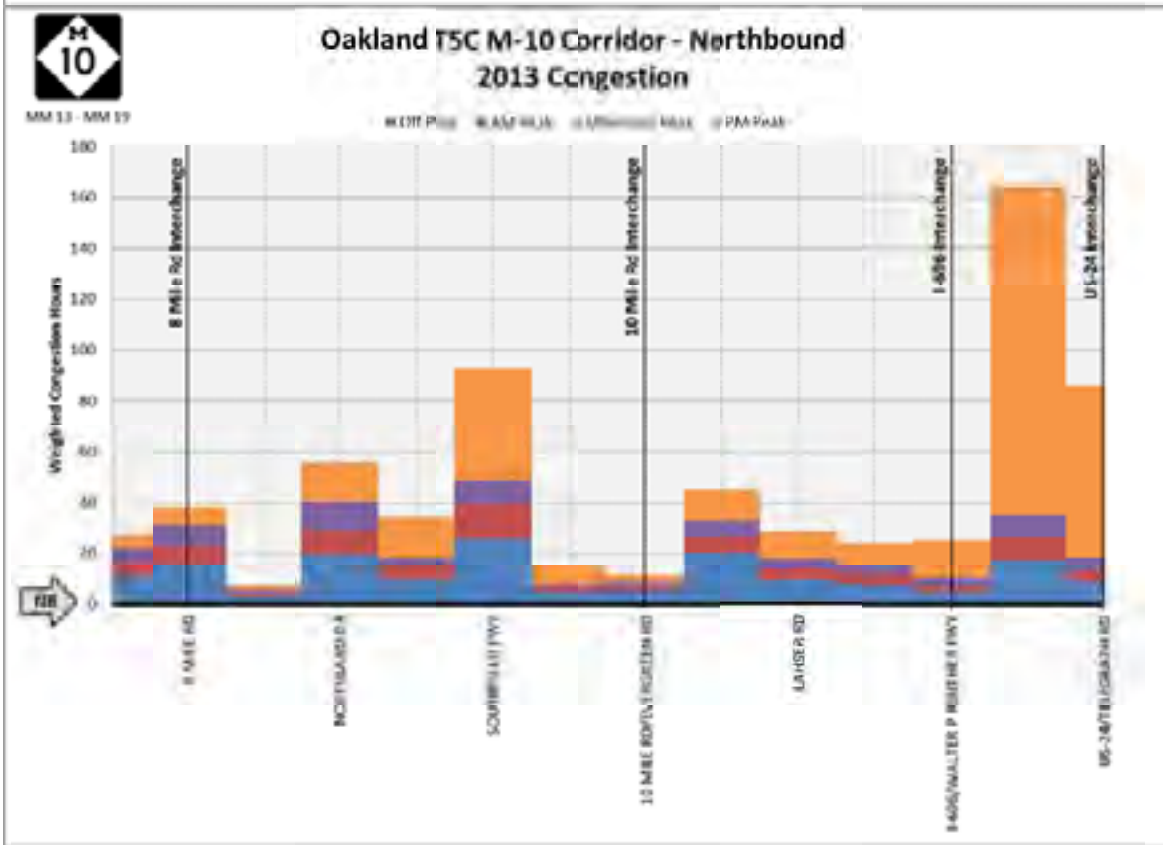
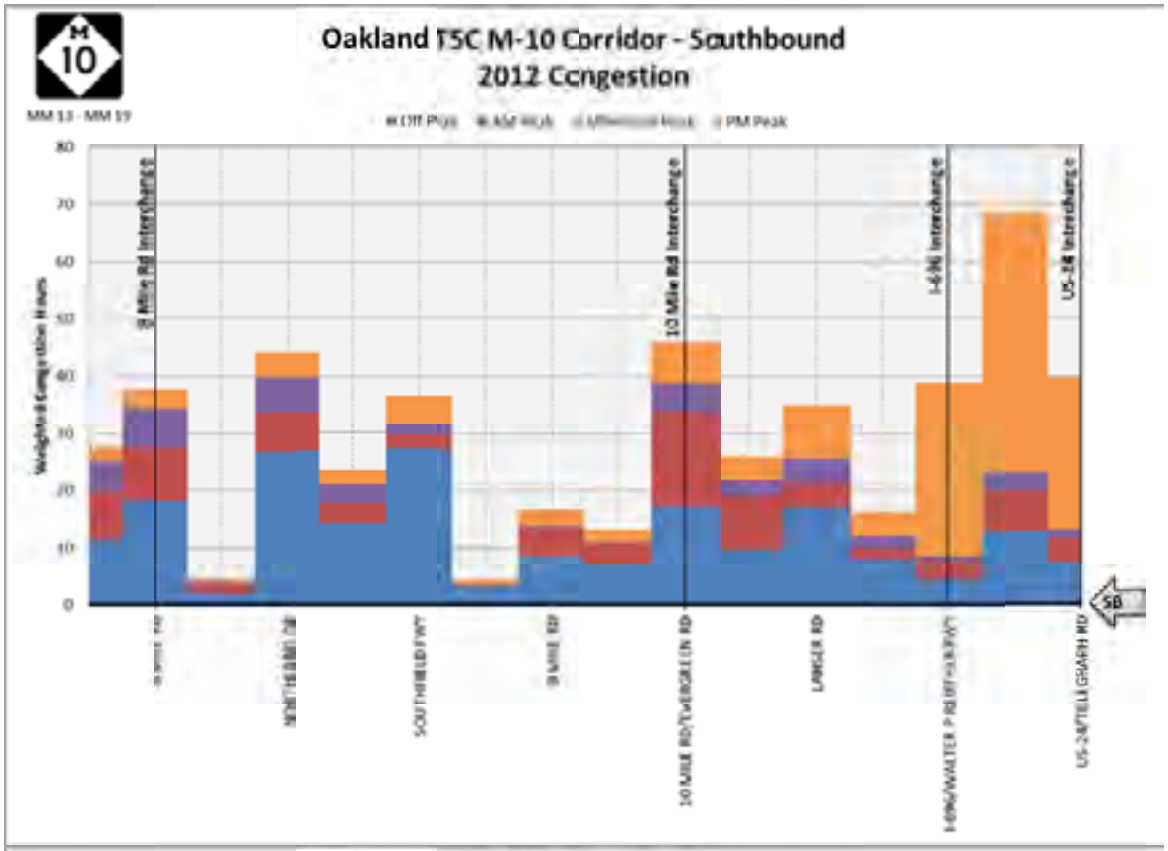

M 10
Oakland TSC M-10 Corridor - Northbound
2013 Congestion
MM 13 - MM 19
Weighted Congestion Hours
8 Mile Rd Interchange
10 Mile Rd Interchange
I-696 Interchange
US-24 Interchange
LAHSER RD
I-696/WALTER P REUTHER FWY

Figure 73


M 10
MM 13 - MM 19
Oakland TSC M-10 Corridor - Southbound
2012 Congestion
AM Peak
PM Peak
Weighted Congestion Hours
8 Mile Rd Interchange
10 Mile Rd Interchange
I-696 Interchange
US-24 Interchange
SB

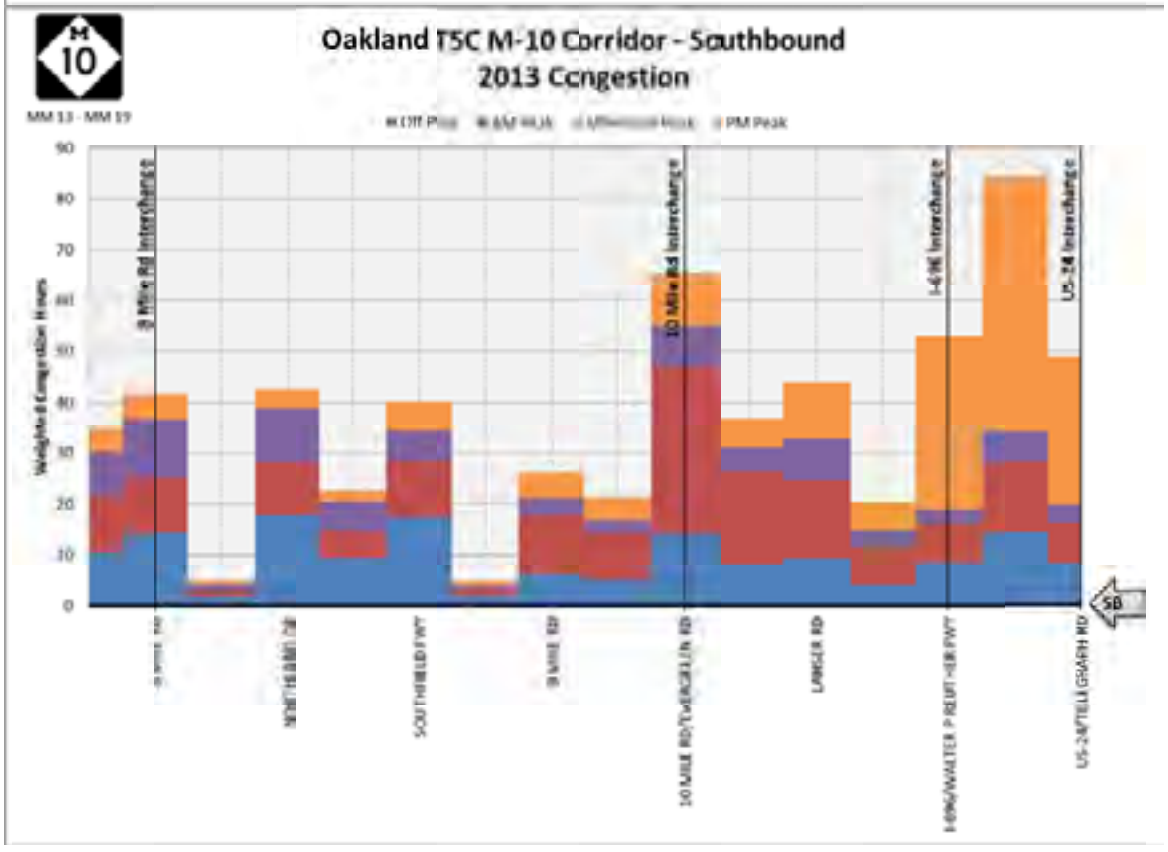
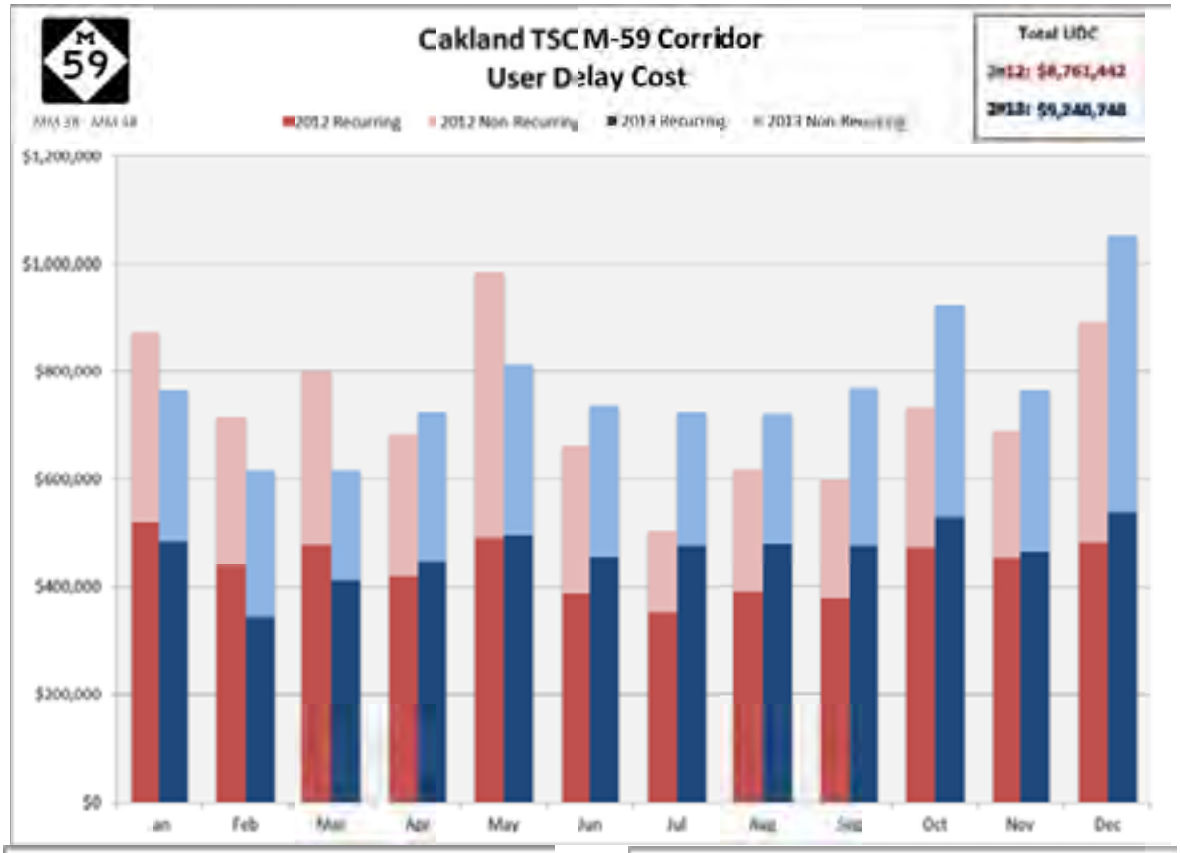
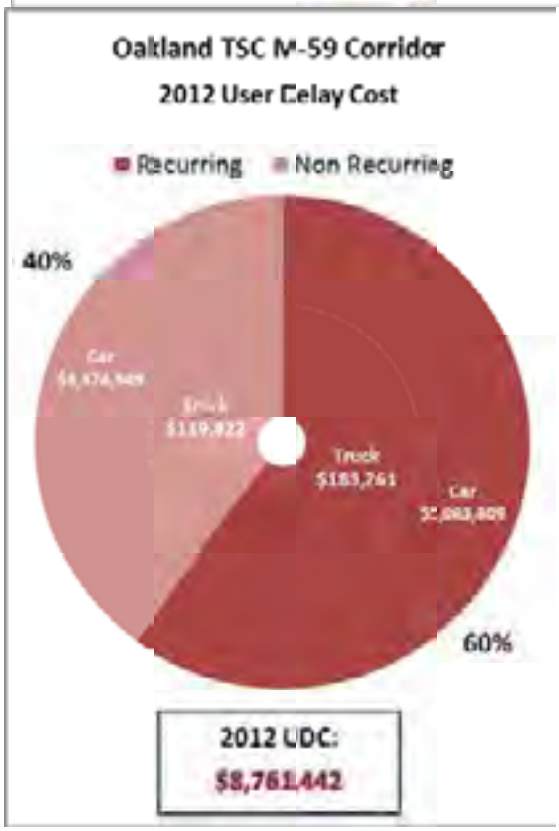

M 10
MM 13 - MM 19
Oakland TSC M-10 Corridor - Southbound
2013 Congestion
AM Peak
PM Peak
Weighted Congestion Hours
8 Mile Rd Interchange
10 Mile Rd Interchange
I-696 Interchange
US-24 Interchange
SB

Figure 74


Cakland TSC M-59 Corridor
User Delay Cost
Total UDC
2012 Recurring
2012 Non Recurring
2013 Recurring
$1,200,000
$1,000,000
$800,000
$600,000
$400,000
$200,000
$0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec


Oakland TSC M-59 Corridor
2012 User Delay Cost
Recurring
Non Recurring
40%
Truck
$183,761
60%
2012 UDC:
$8,761,442

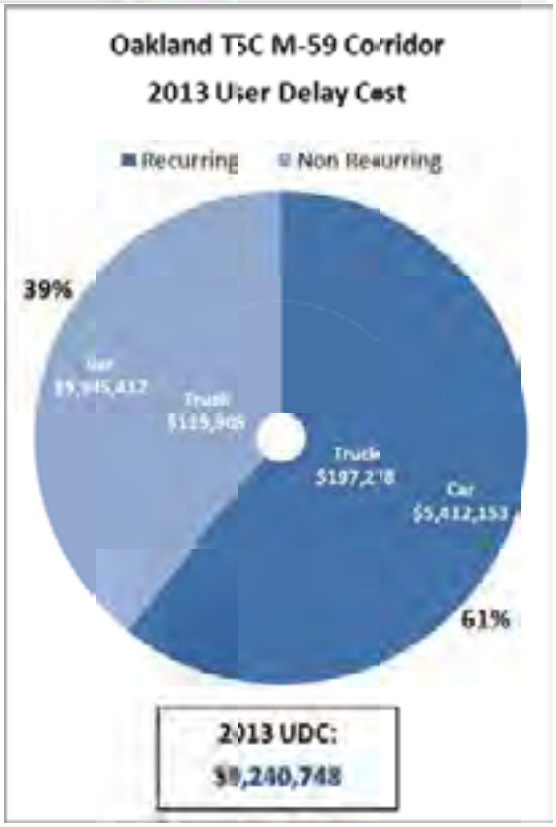
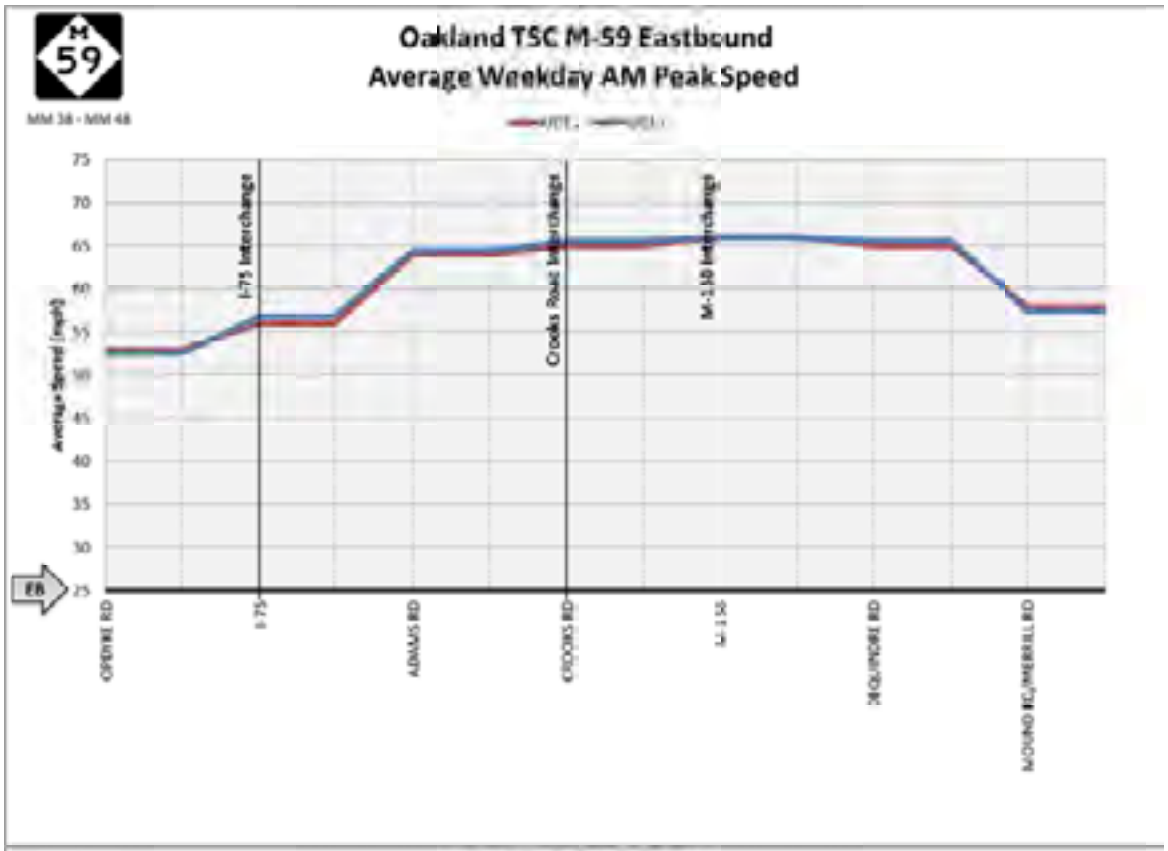

Oakland TSC M-59 Corridor
2013 User Delay Cost
Recurring
Non Recurring
39%
Truck
$197,278
Car
$5,432,153
61%
2013 UDC:
$9,240,748

Figure 75


M 59
MM 38 - MM 48
Oakland TSC M-59 Eastbound
Average Weekday AM Peak Speed
I-75 Interchange
Crooks Road Interchange
M-150 Interchange
Average Speed (mph)
75
70
65
60
55
50
45
40
35
30
25
EB
OPDYKE RD
I-75
ADAMS RD
CROOKS RD
M-150
SQUIRREL RD
MOUND RD/MERRILL RD

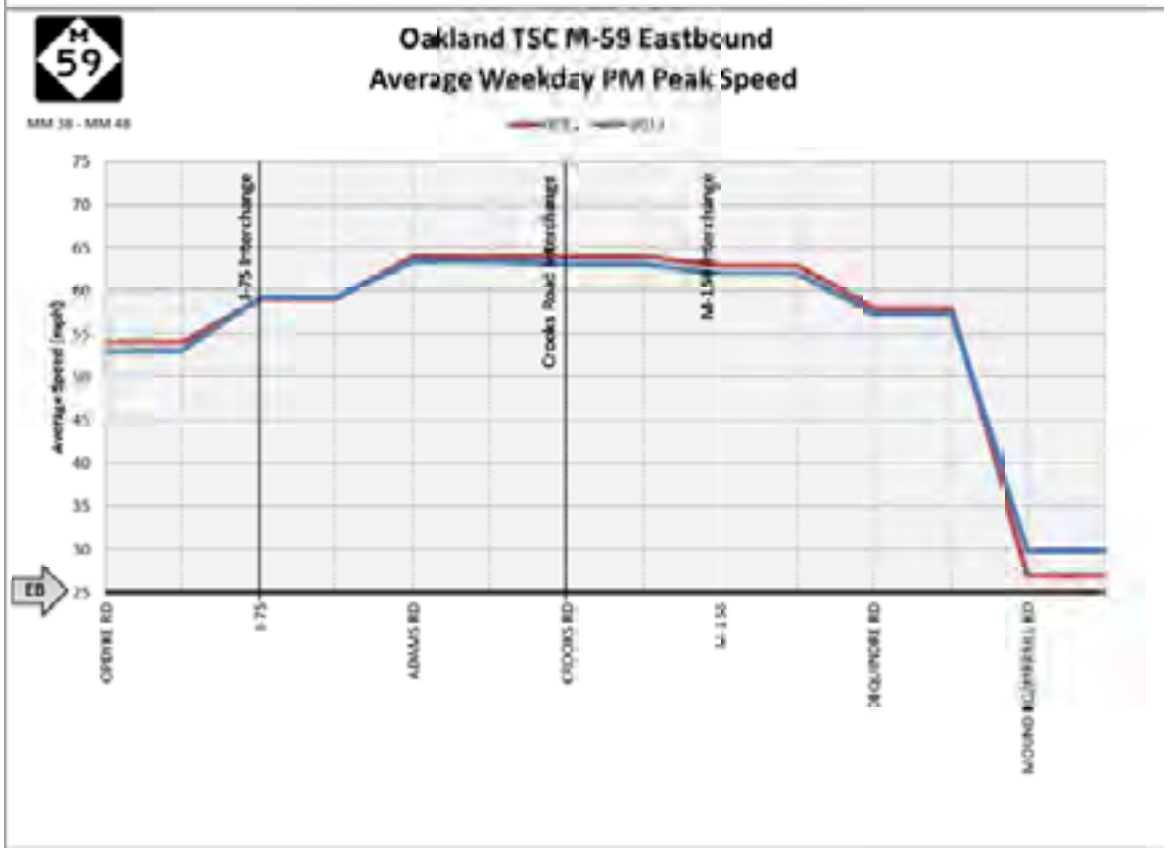
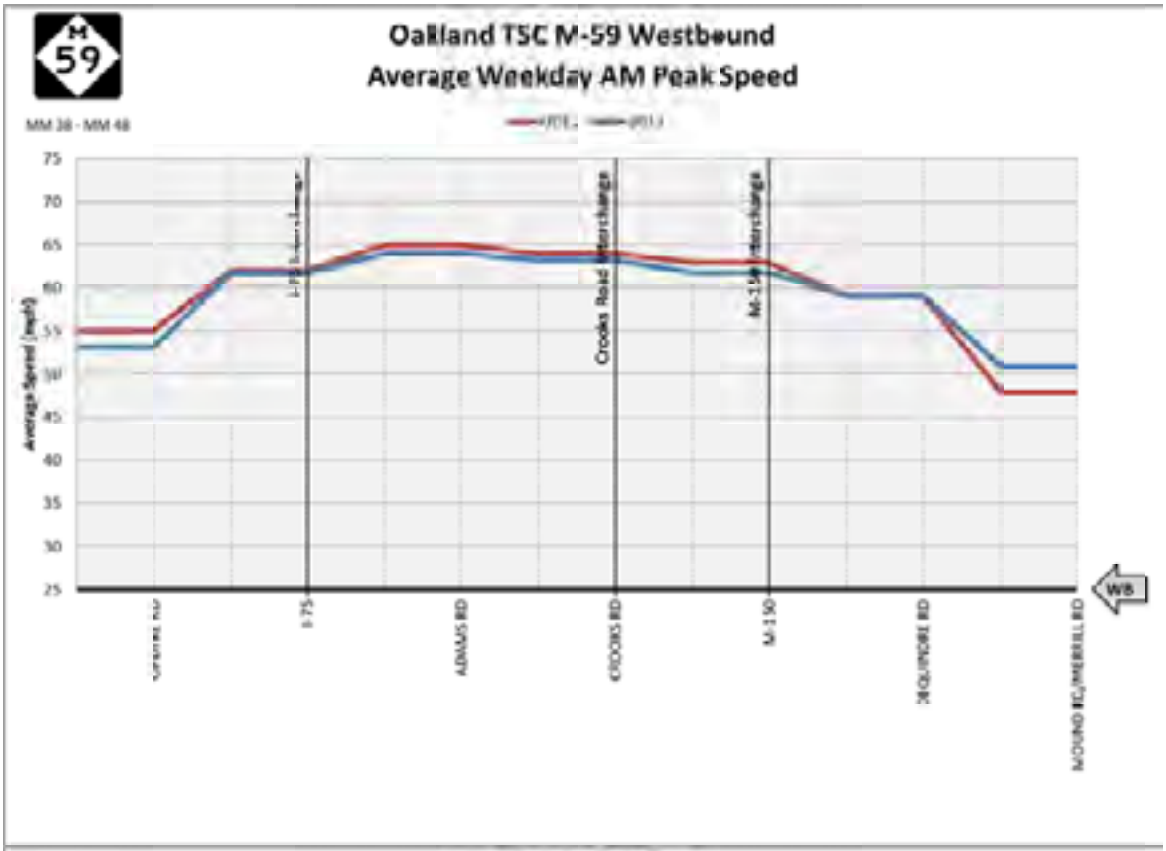

M 59
MM 38 - MM 48
Oakland TSC M-59 Eastbound
Average Weekday PM Peak Speed
I-75 Interchange
Crooks Road Interchange
Average Speed (mph)
75
70
65
60
55
50
45
40
35
30
25
EB
OPDYKE RD
I-75
ADAMS RD
CROOKS RD
M-150
SQUIRREL RD

Figure 76


M 59
Oakland TSC M-59 Westbound
Average Weekday AM Peak Speed
MM 38 - MM 48
Average Speed (mph)
75
70
65
60
55
50
45
40
35
30
25
I-75
Crooks Road
M-150
ADAMS RD
CROOKS RD
M-150
W/B

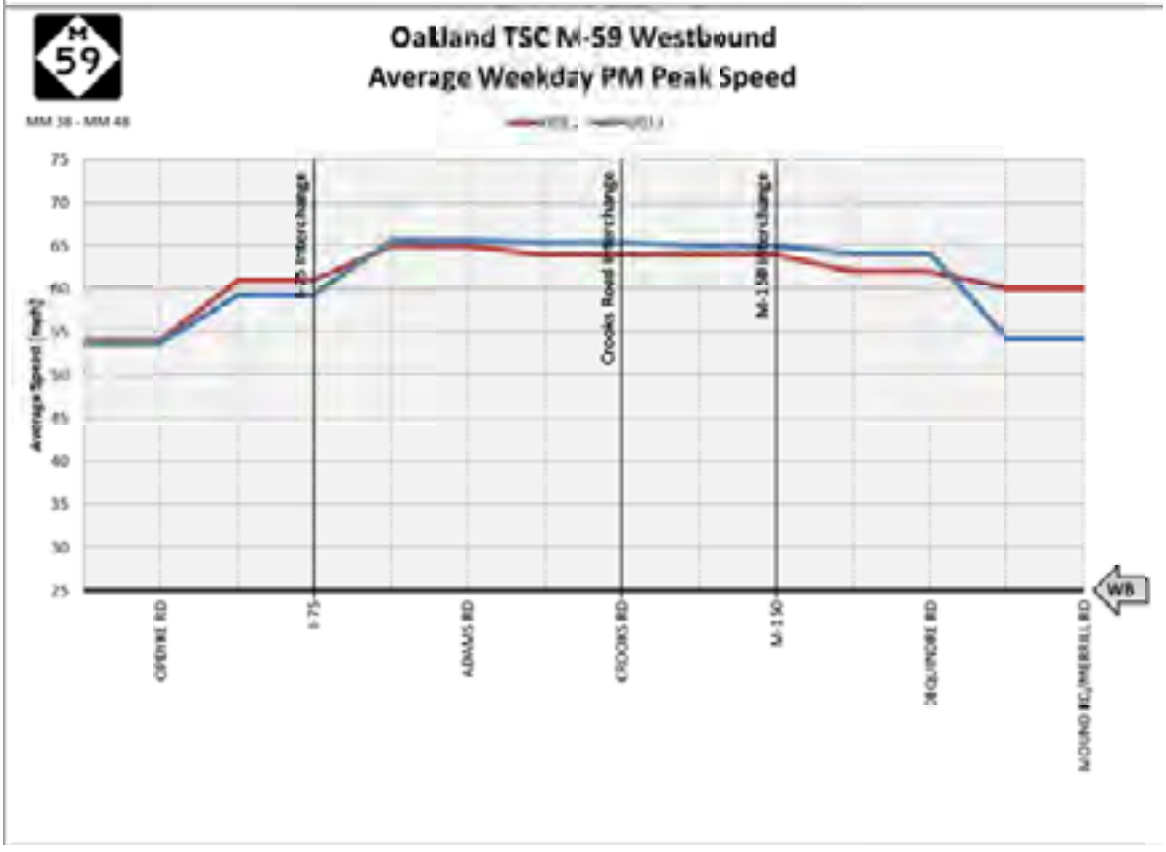
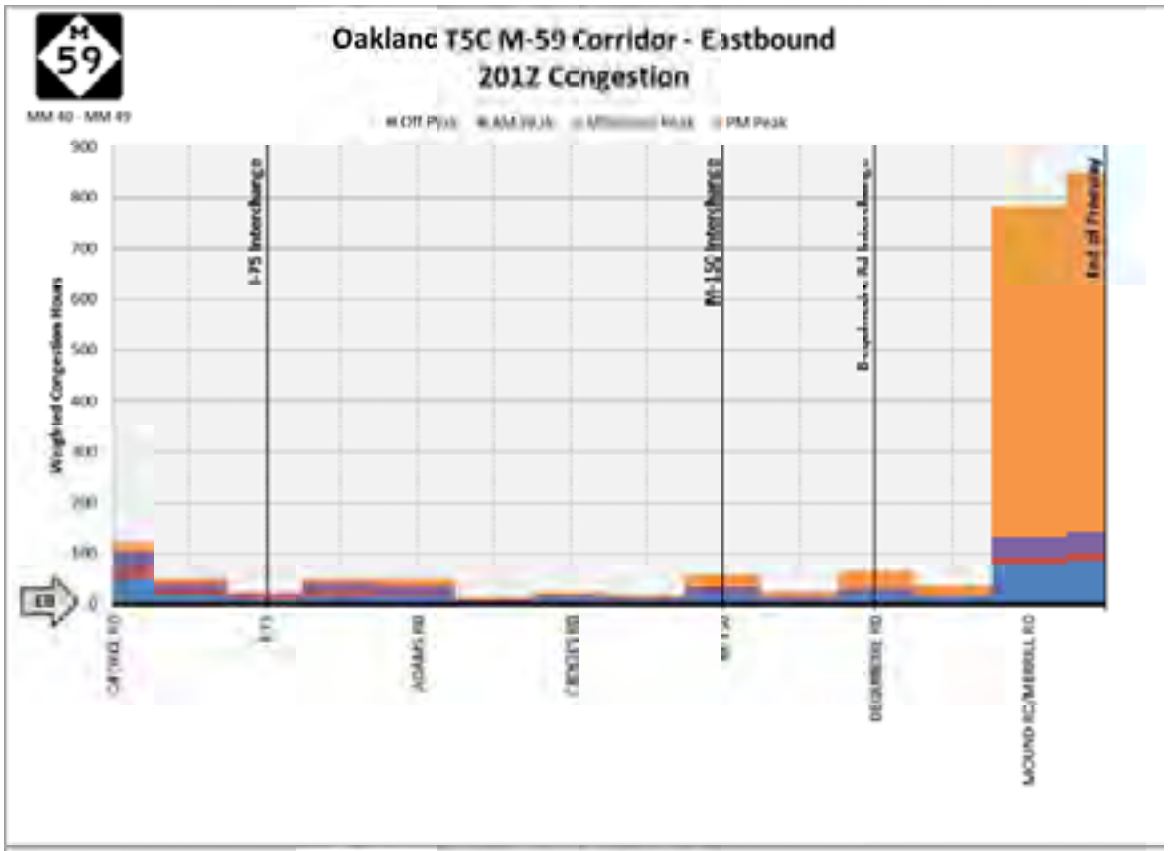

M 59
Oakland TSC M-59 Westbound
Average Weekday PM Peak Speed
MM 38 - MM 48
Average Speed (mph)
75
70
65
60
55
50
45
40
35
30
25
I-75
Crooks Road
M-150
ADAMS RD
CROOKS RD
M-150
W/B

Figure 77


59
MM 40 - MM 49
Oaklanc TSC M-59 Corridor - Eastbound
2012 Congestion
Weighted Congestion Hours
I-75 Interchange
M-150 Interchange
End of Freeway

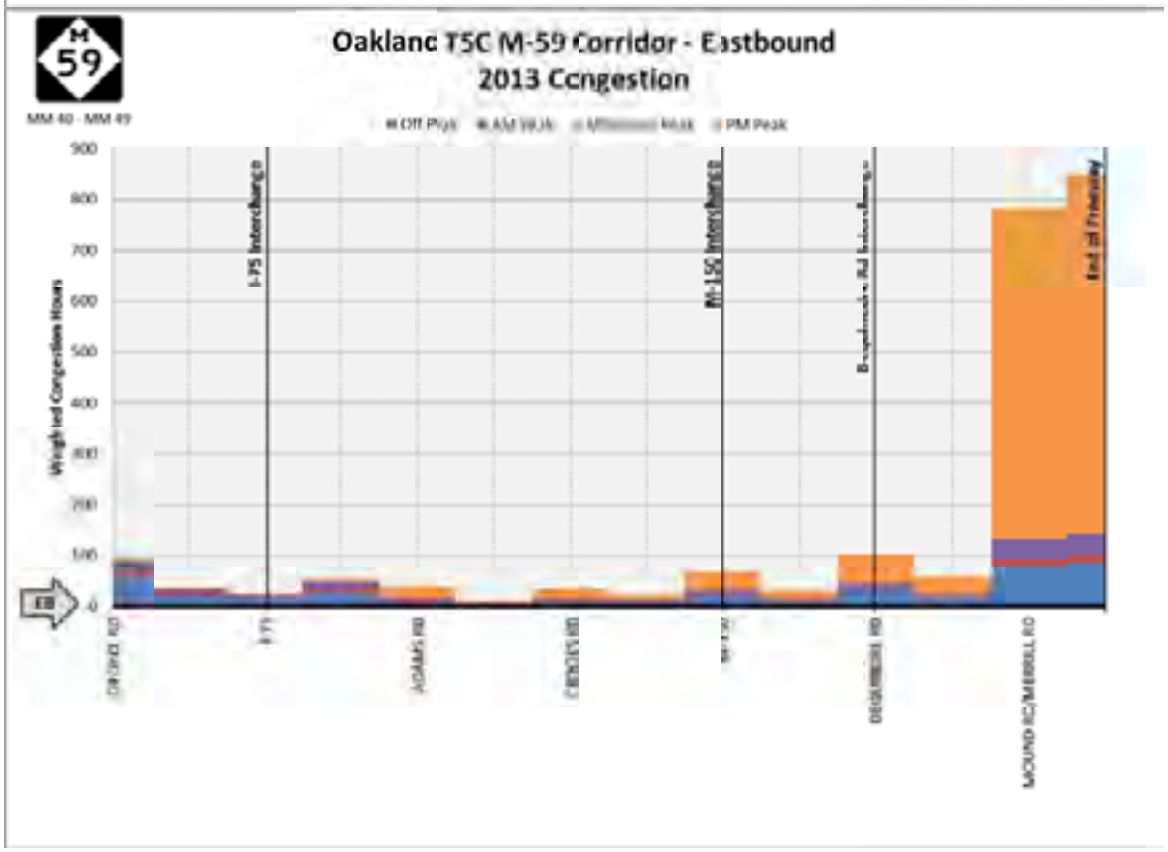
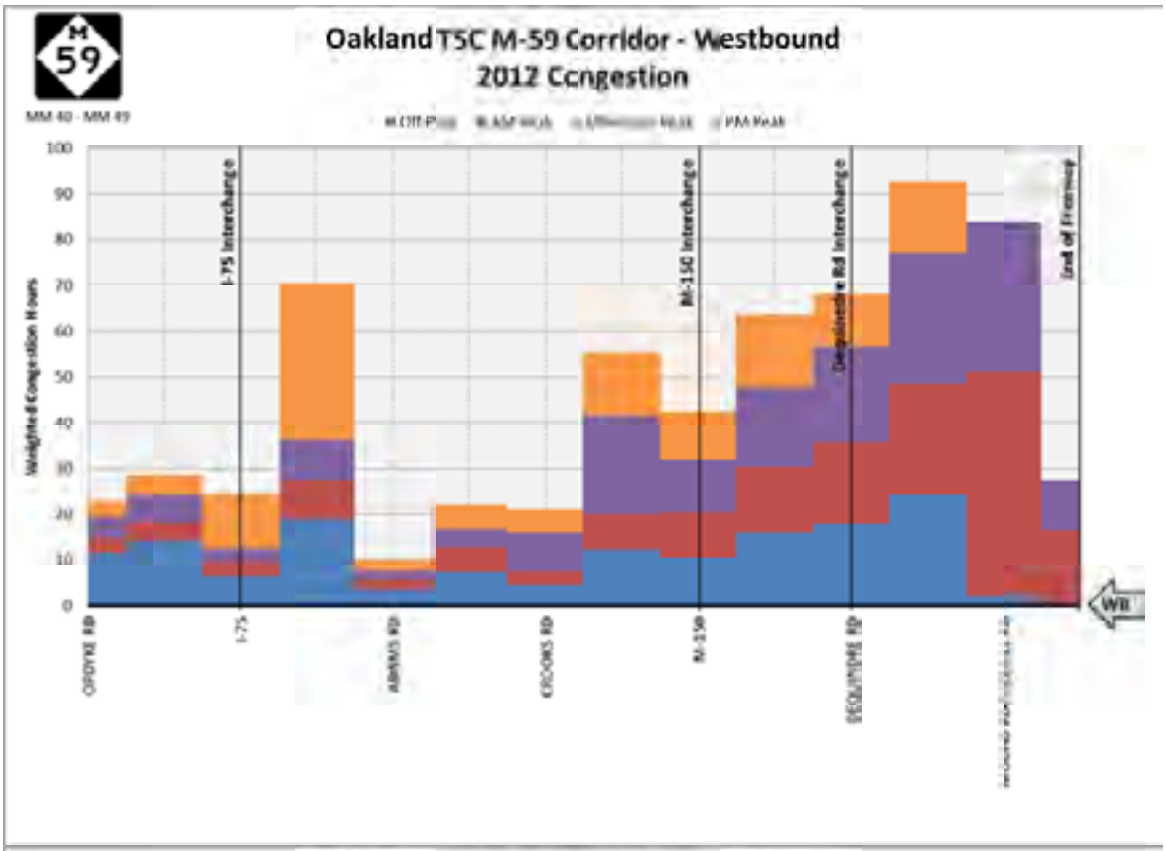

59
MM 40 - MM 49
Oaklanc TSC M-59 Corridor - Eastbound
2013 Congestion
Weighted Congestion Hours
I-75 Interchange
M-150 Interchange
End of Freeway

Figure 78


M 59
MM 40 - MM 49
Oakland TSC M-59 Corridor - Westbound
2012 Congestion
Weighted Congestion Hours
I-75 Interchange
M-150 Interchange
Dequindre Rd Interchange
End of Freeway
OPDYKE RD
I-75
ADAMS RD
COOPER RD
M-150
DEQUINDRE RD
WB

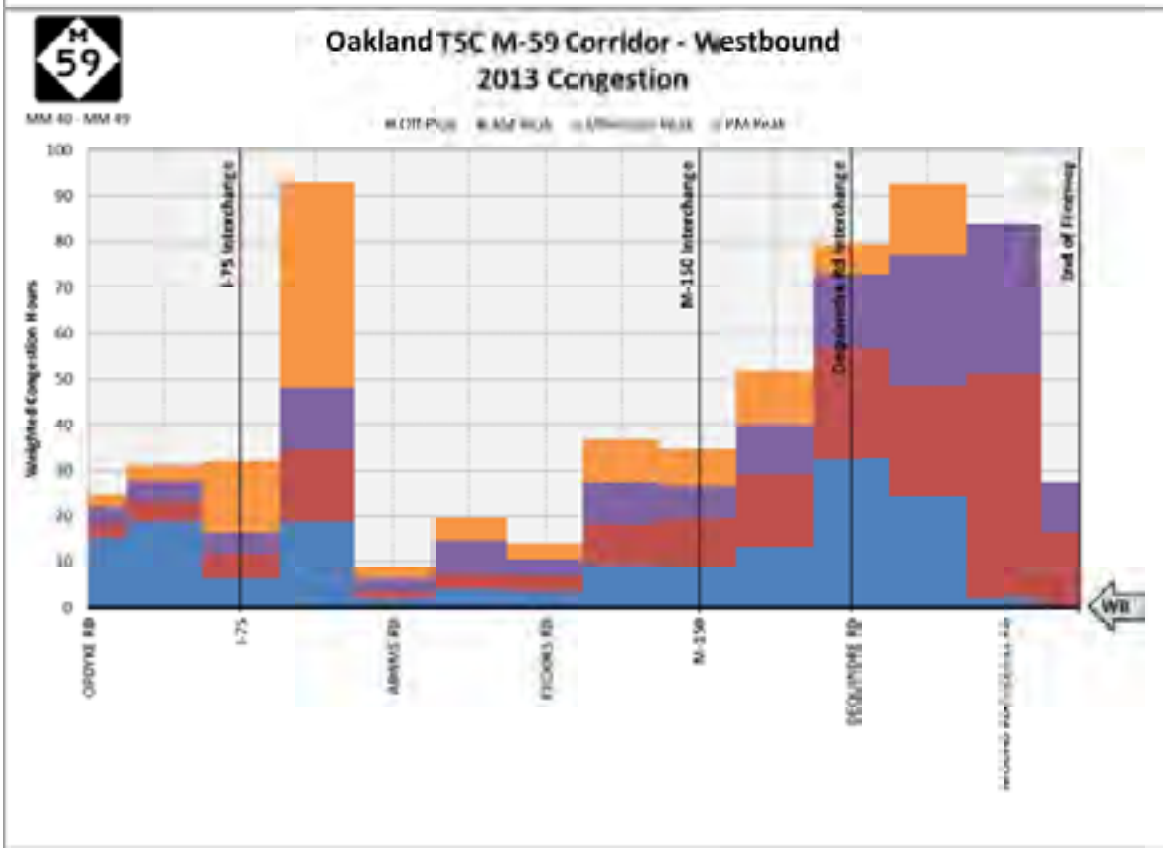
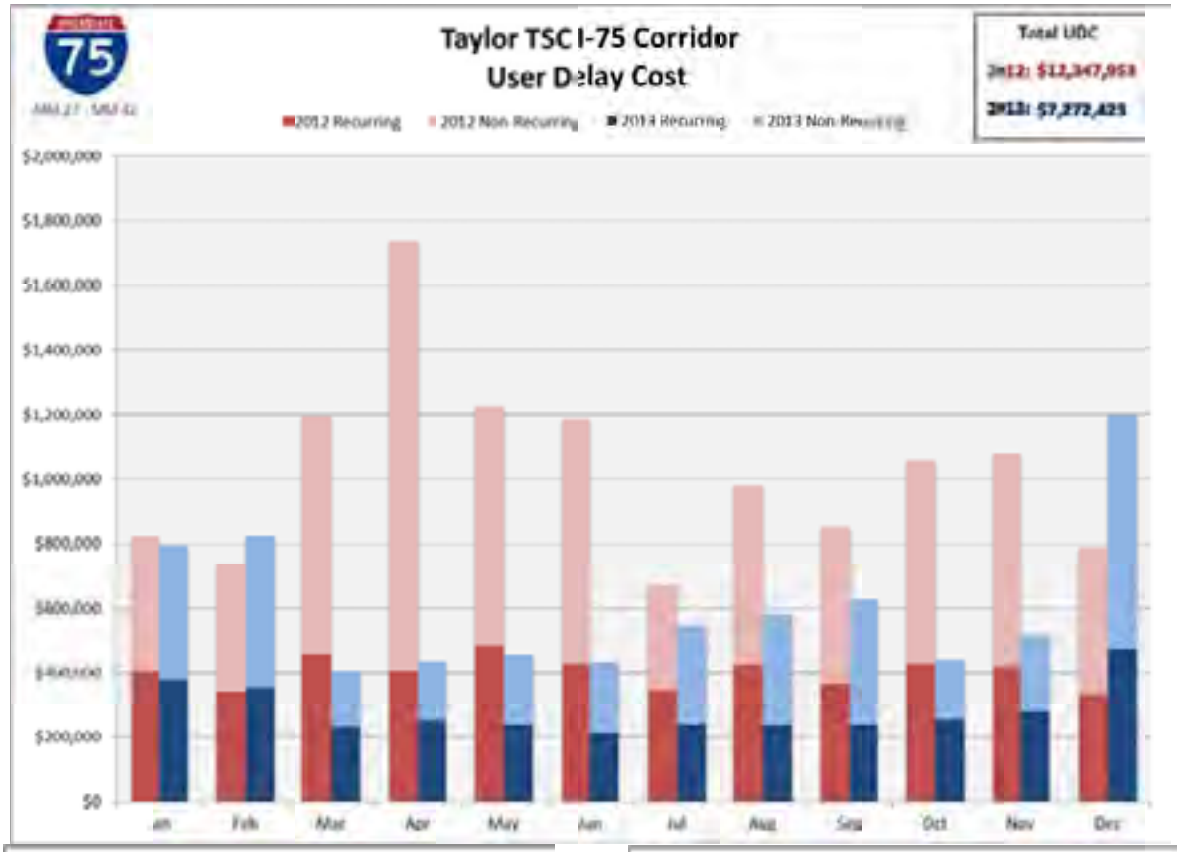
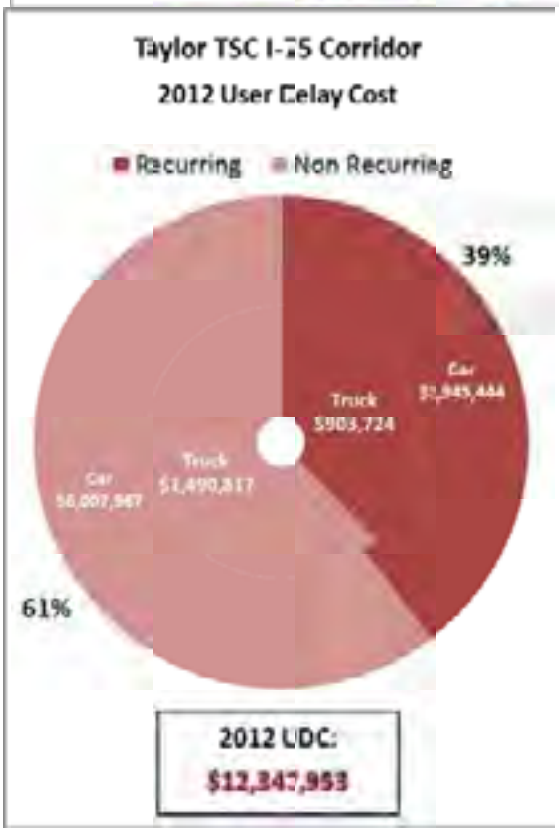

M 59
MM 40 - MM 49
Oakland TSC M-59 Corridor - Westbound
2013 Congestion
Weighted Congestion Hours
I-75 Interchange
M-150 Interchange
Dequindre Rd Interchange
End of Freeway
OPDYKE RD
I-75
ADAMS RD
COOPER RD
M-150
DEQUINDRE RD
WB

Figure 79


Taylor TSC I-75 Corridor
User Delay Cost
Total UDC
2012: $12,347,953
2013: $7,272,423
2012 Recurring
2012 Non Recurring
2013 Recurring
2013 Non Recurring
$2,000,000
$1,800,000
$1,600,000
$1,400,000
$1,200,000
$1,000,000
$800,000
$600,000
$200,000
$0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec


Taylor TSC I-75 Corridor
2012 User Delay Cost
Recurring
Non Recurring
39%
Truck
$903,724
Car
$1,490,817
61%
2012 UDC:
$12,347,953

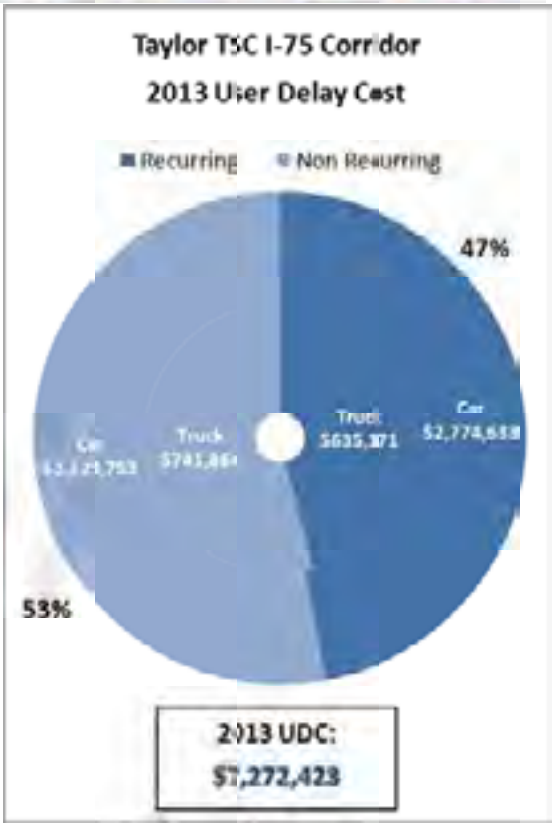
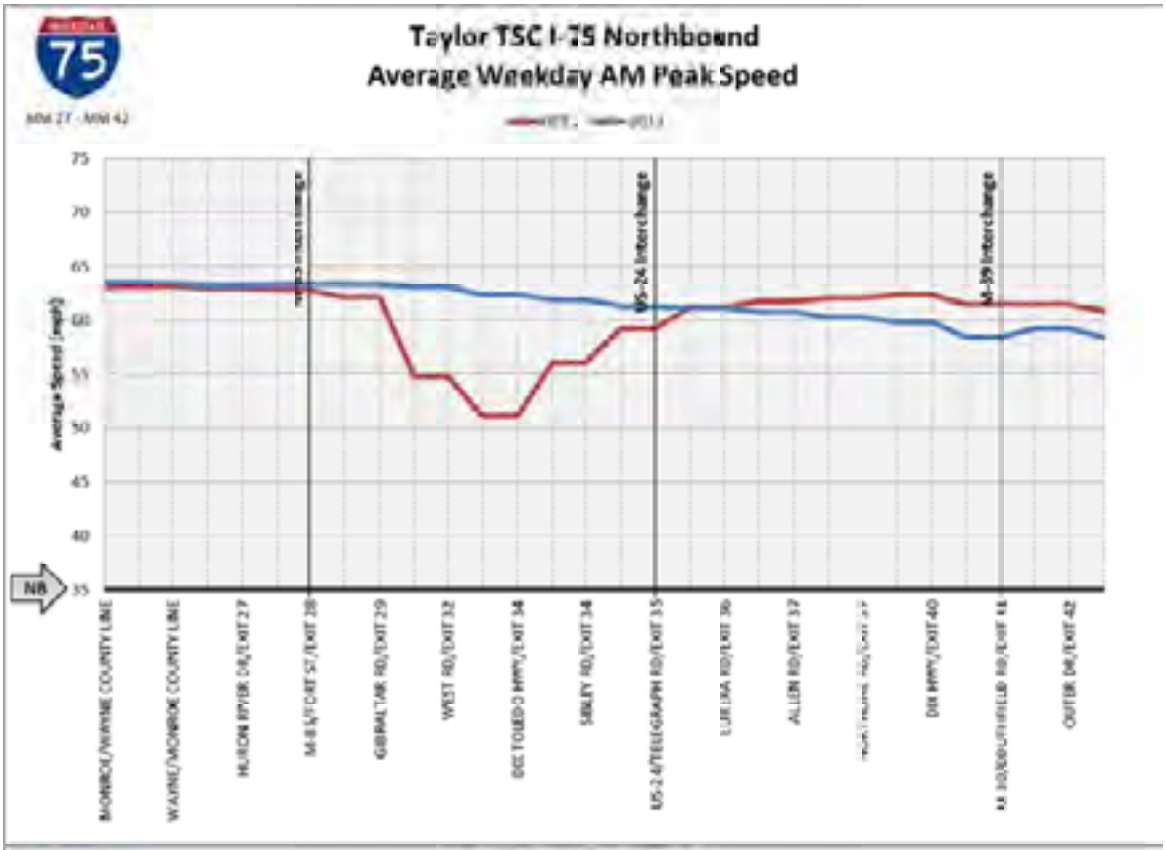

Taylor TSC I-75 Corridor
2013 User Delay Cost
Recurring
Non Recurring
47%
Truck
$635,371
Car
$2,774,688
53%
2013 UDC:
$7,272,423

Figure 80


75
Taylor TSC I-75 Northbound
Average Weekday AM Peak Speed
Average Speed (mph)
NB
US-24 Interchange
M-39 Interchange

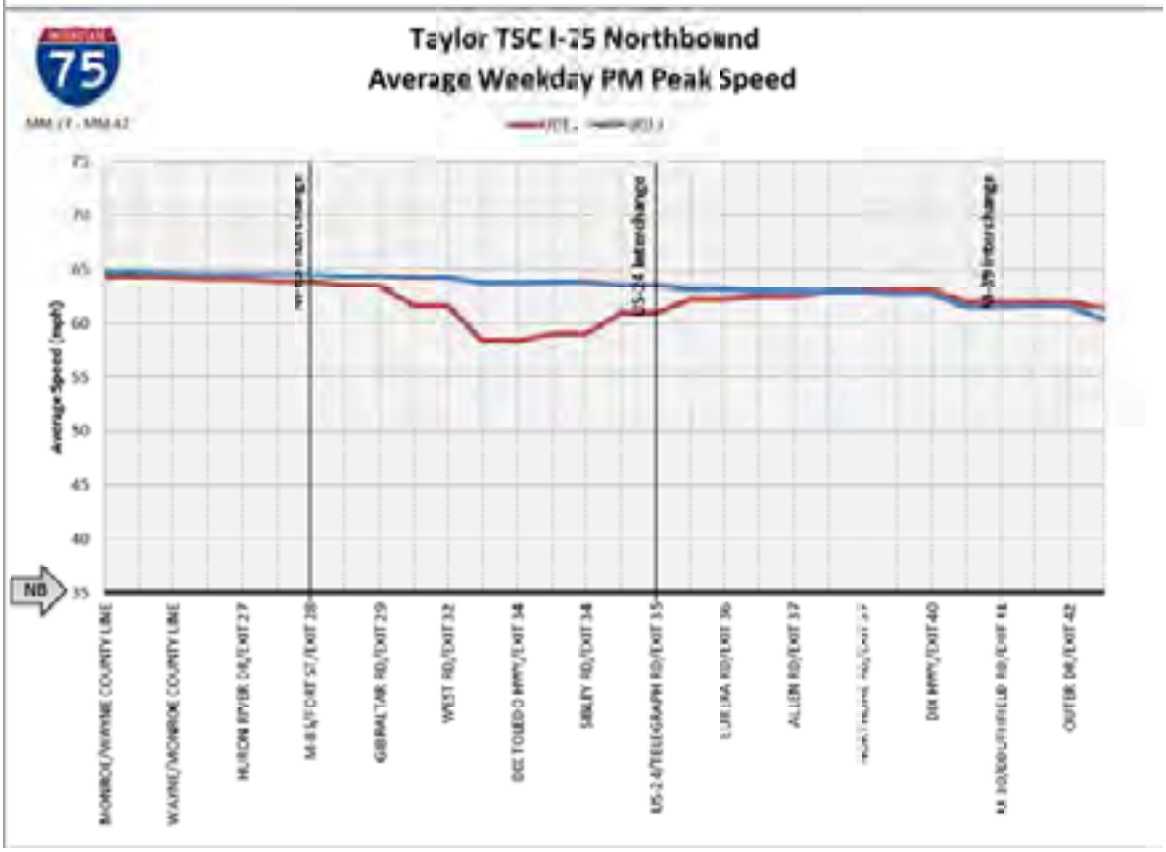
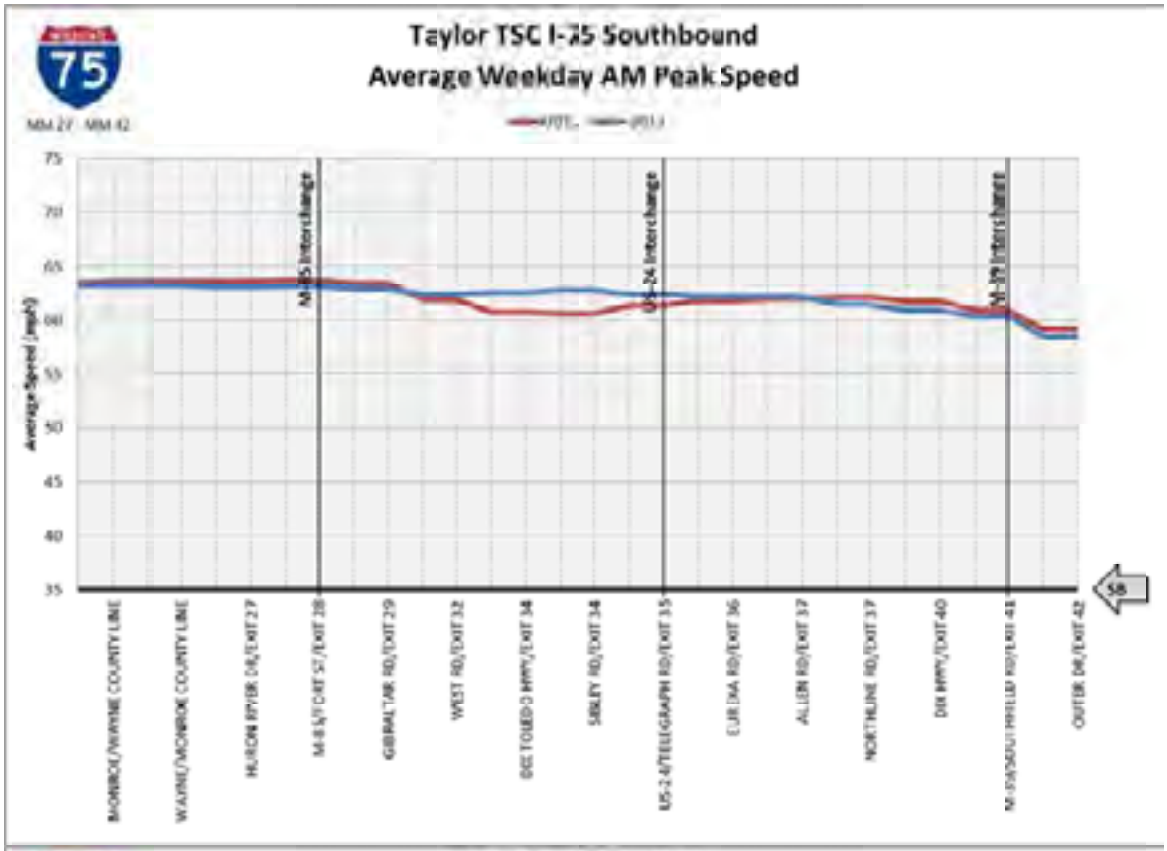

75
Taylor TSC I-75 Northbound
Average Weekday PM Peak Speed
Average Speed (mph)
NB
US-24 Interchange
M-39 Interchange

Figure 81


Taylor TSC I-75 Southbound
Average Weekday AM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
M-85 Interchange
US-24 Interchange
M-39 Interchange
BIONROE/WAYNE COUNTY LINE
WAYNE/MONROE COUNTY LINE
HURON RIVER DR/EXIT 27
M-85/FORT ST/EXIT 28
GIBRALTAR RD/EXIT 29
WEST RD/EXIT 32
SIBLEY RD/EXIT 34
US-24/TELEGRAPH RD/EXIT 35
CURTIS RD/EXIT 36
ALLEN RD/EXIT 37
NORTHLINE RD/EXIT 37
DIX HWY/EXIT 40
M-39/SOUTHFIELD RD/EXIT 41
OUTER DR/EXIT 42
SB

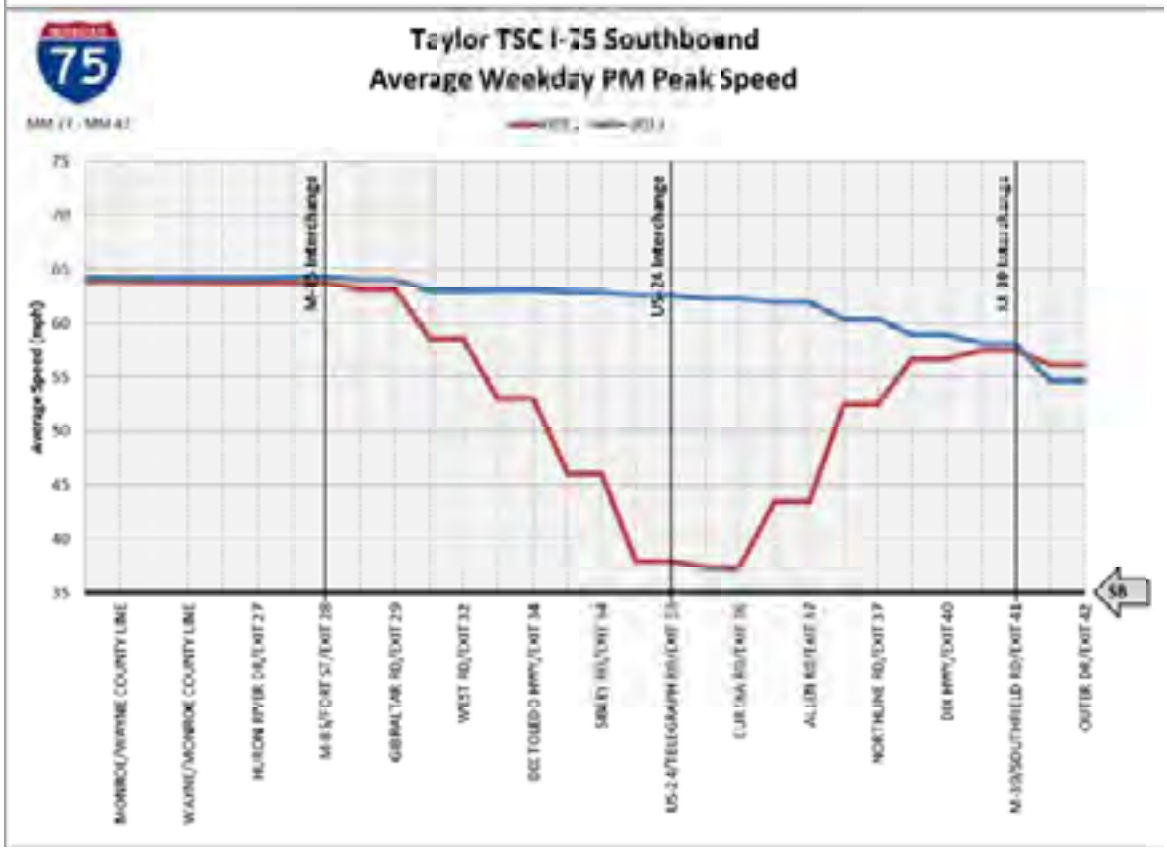

Taylor TSC I-75 Southbound
Average Weekday PM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
M-85 Interchange
US-24 Interchange
BIONROE/WAYNE COUNTY LINE
WAYNE/MONROE COUNTY LINE
HURON RIVER DR/EXIT 27
M-85/FORT ST/EXIT 28
GIBRALTAR RD/EXIT 29
WEST RD/EXIT 32
SIBLEY RD/EXIT 34
CURTIS RD/EXIT 36
ALLEN RD/EXIT 37
NORTHLINE RD/EXIT 37
DIX HWY/EXIT 40
OUTER DR/EXIT 42
SB

Figure 82

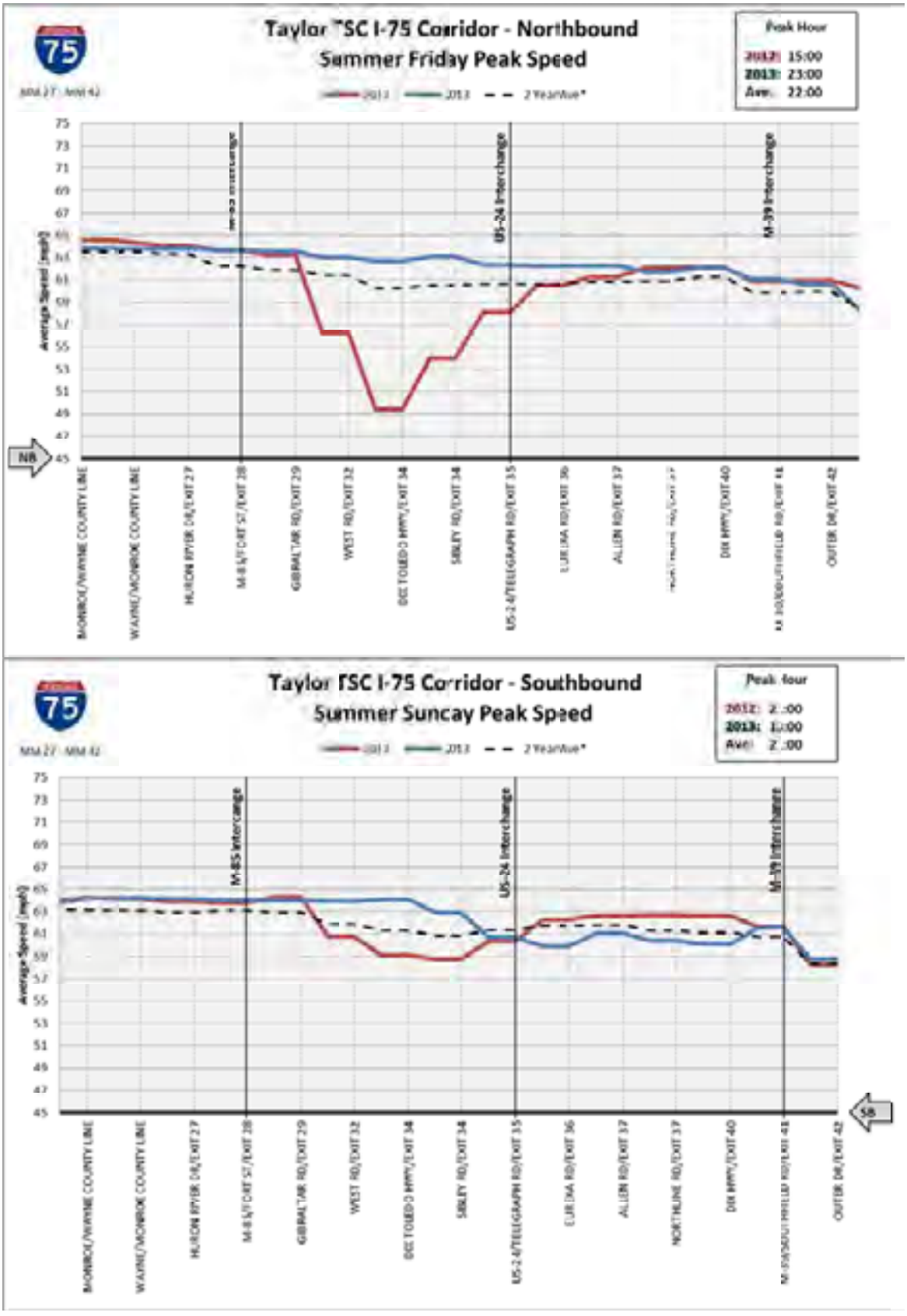
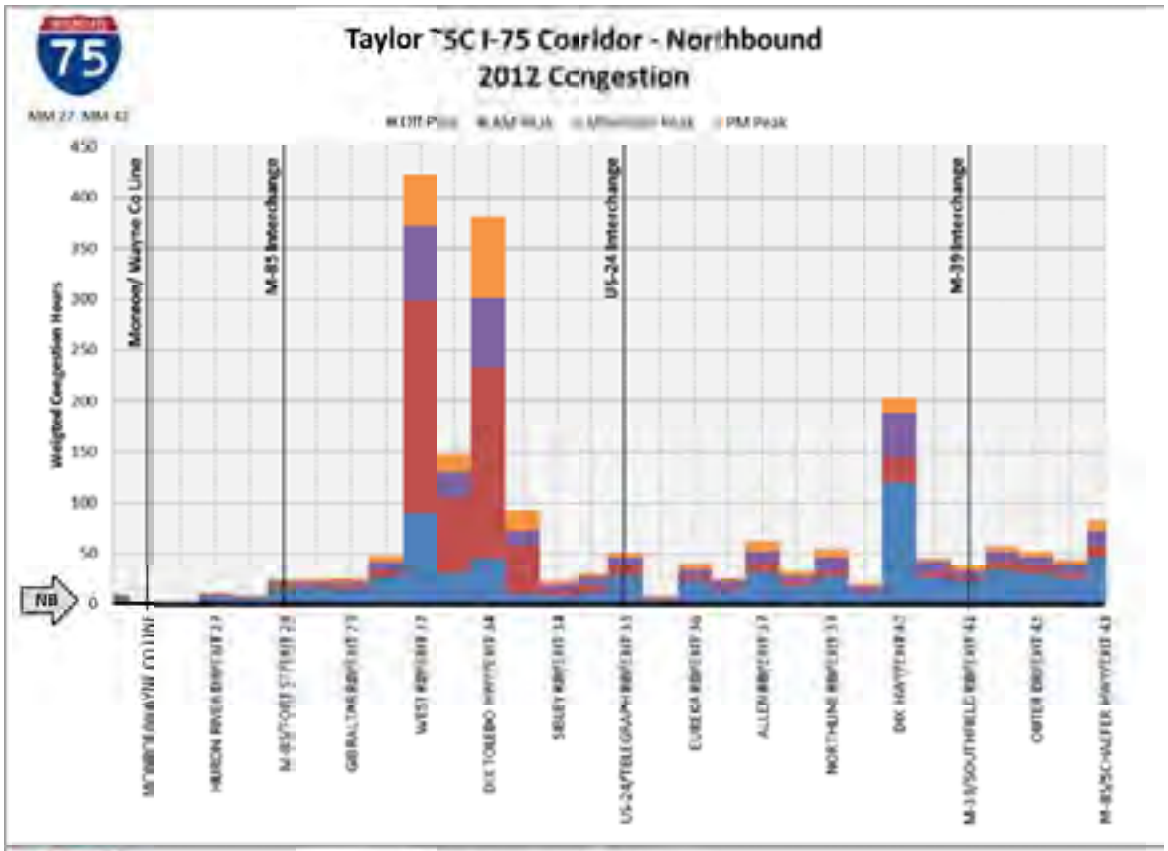

Taylor TSC I-75 Corridor - Northbound
Summer Friday Peak Speed
Peak Hour
2012: 15:00
2013: 23:00
Ave: 22:00
Average Speed (mph)
US-24 Interchange
M-39 Interchange
NB
Taylor TSC I-75 Corridor - Southbound
Summer Sunday Peak Speed
Peak Hour
2012: 2:00
2013: 1:00
Ave: 2:00
M-85 Interchange
US-24 Interchange
M-39 Interchange
SB

Figure 83


75
Taylor TSC I-75 Corridor - Northbound
2012 Congestion
Weighted Congestion Hours
Monroe/ Wayne Co Line
M-85 Interchange
US-24 Interchange
M-39 Interchange
NB

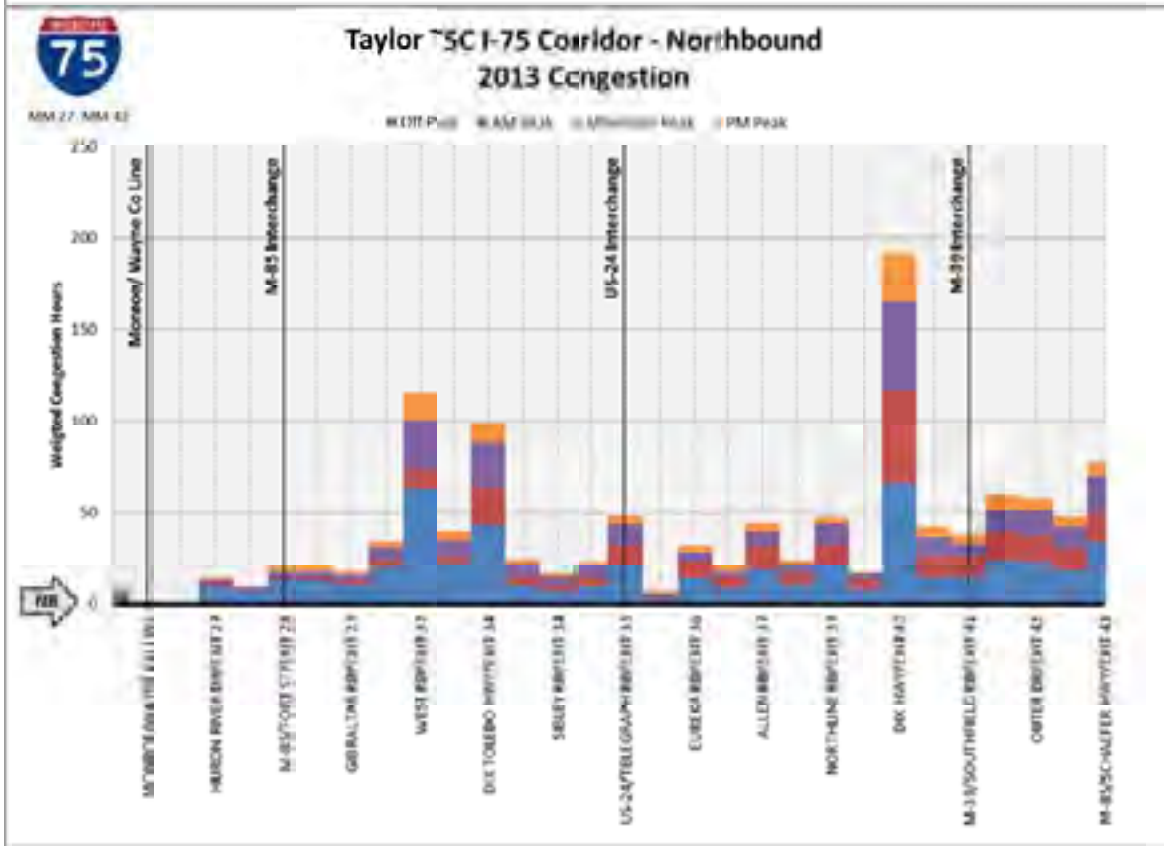
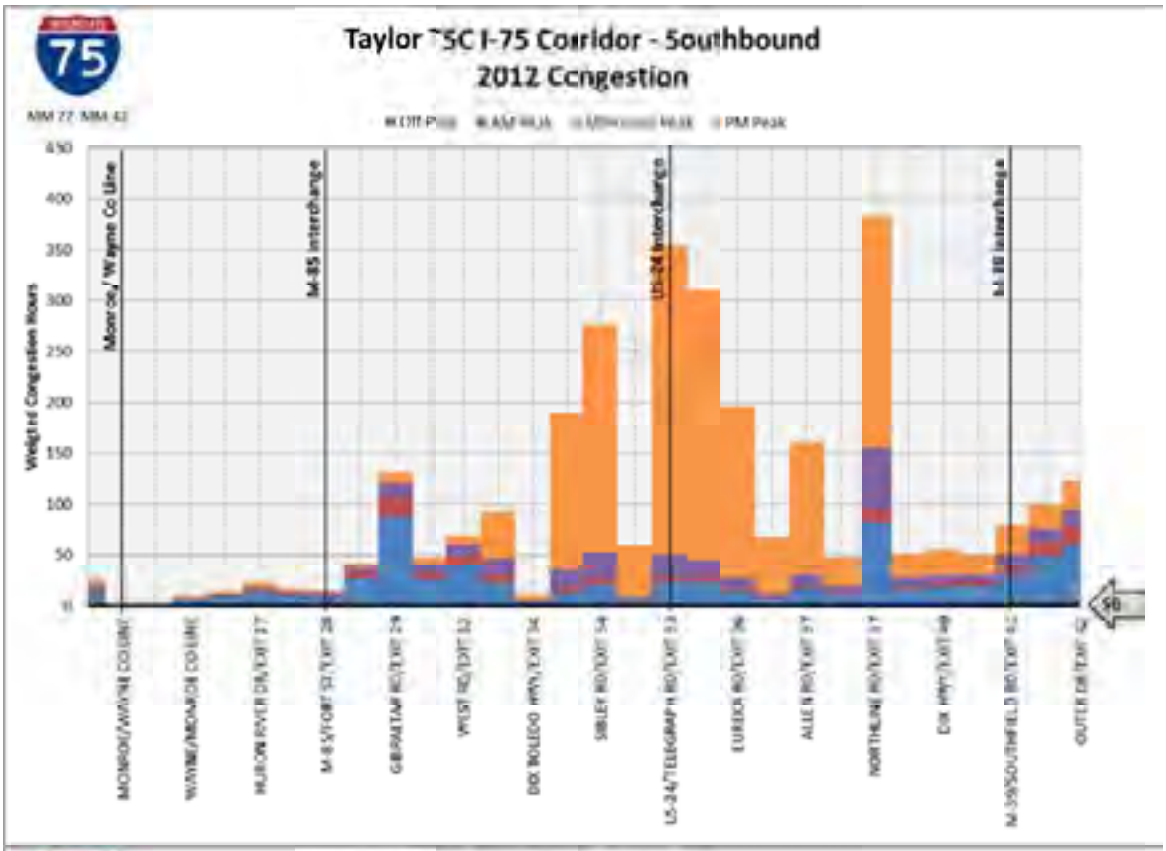

75
Taylor TSC I-75 Corridor - Northbound
2013 Congestion
Weighted Congestion Hours
Monroe/ Wayne Co Line
M-85 Interchange
US-24 Interchange
M-39 Interchange
NB

Figure 84


75
Taylor TSC I-75 Corridor - Southbound
2012 Congestion
Weighted Congestion Hours
Monroe / Wayne Co Line
M-85 Interchange
US-24 Interchange
M-39 Interchange

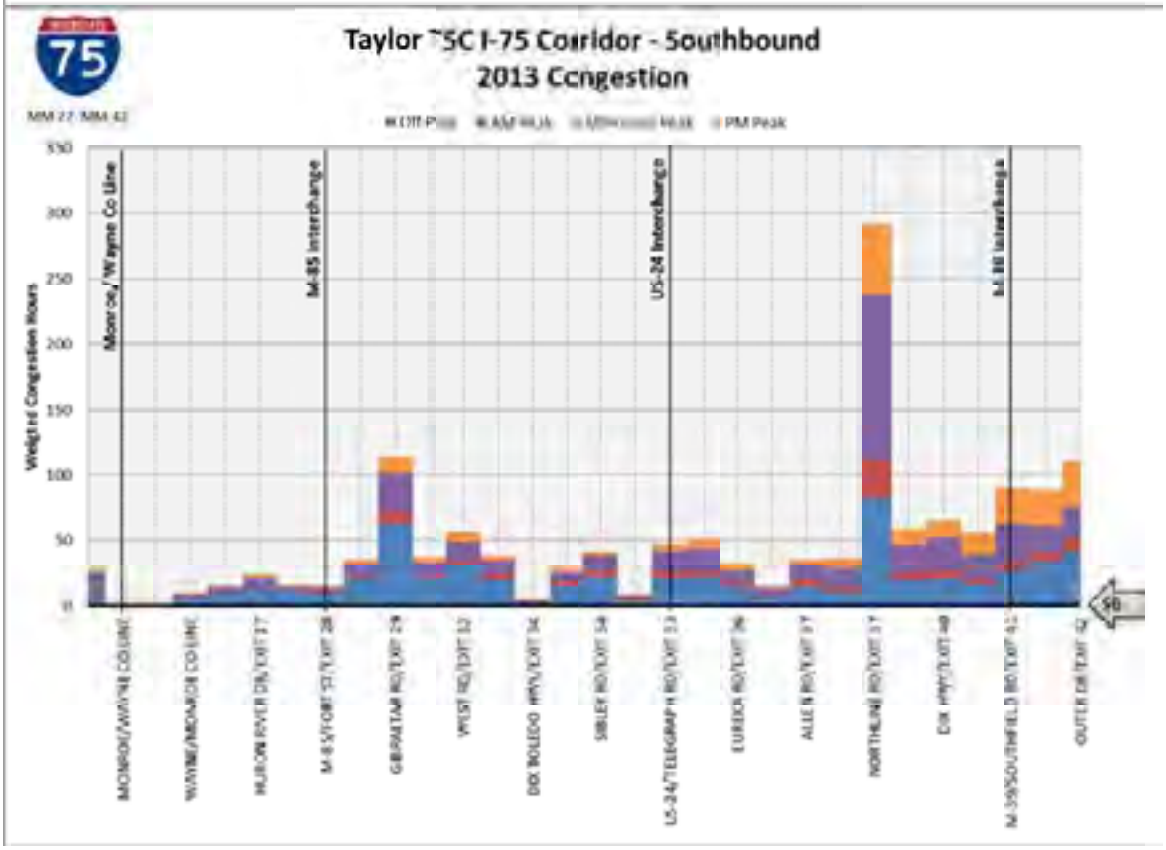
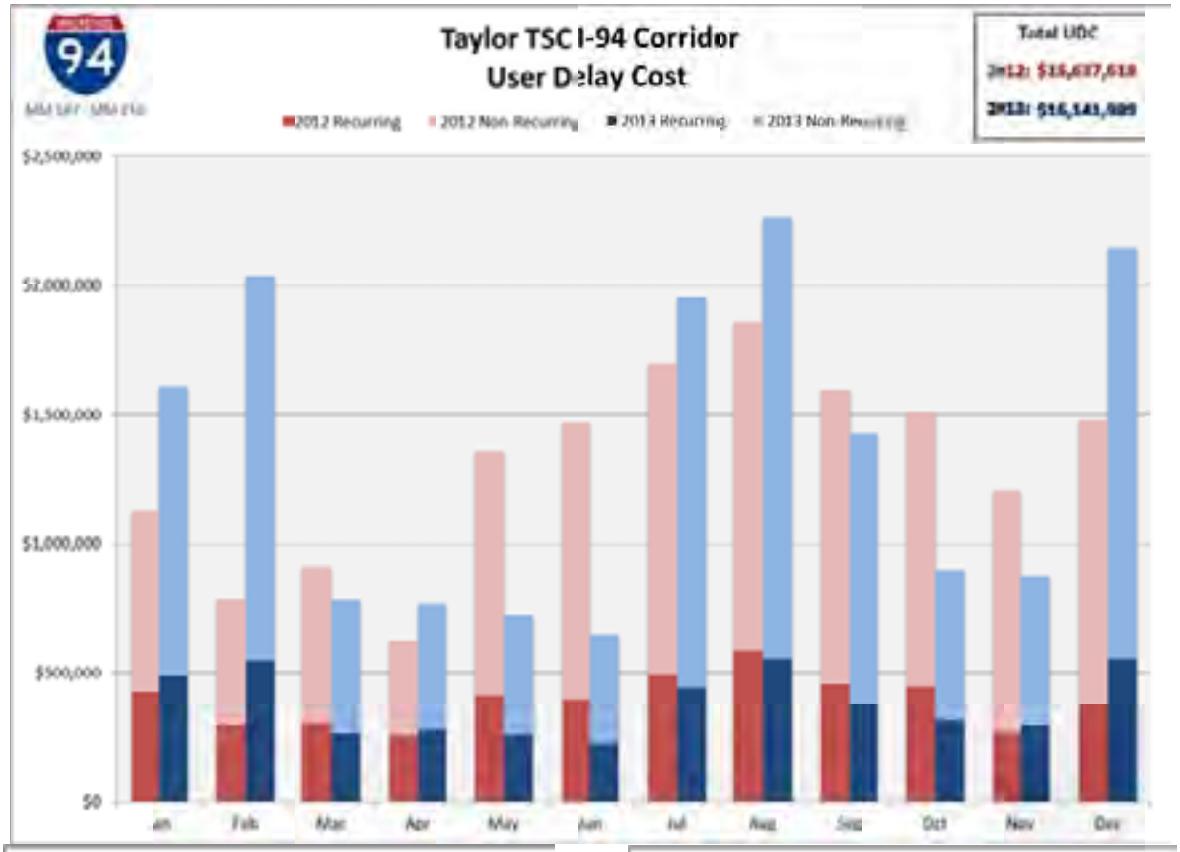
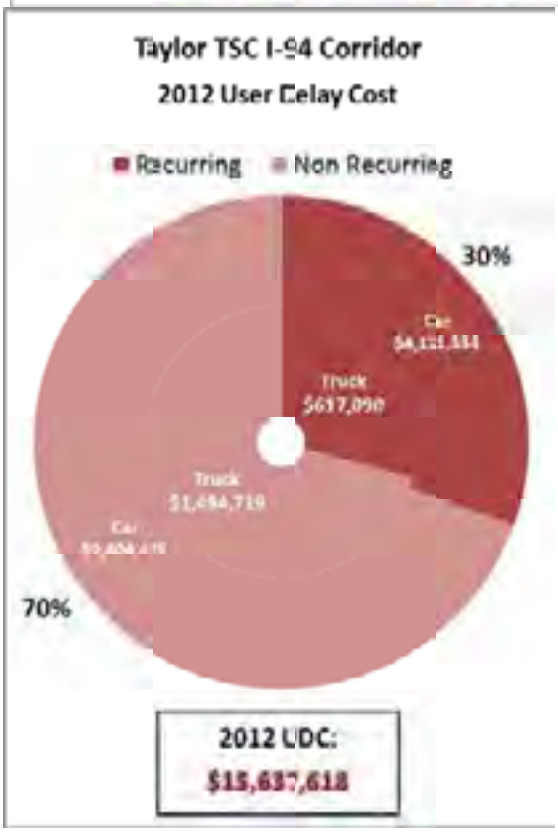

75
Taylor TSC I-75 Corridor - Southbound
2013 Congestion
Weighted Congestion Hours
Monroe / Wayne Co Line
M-85 Interchange
US-24 Interchange
M-39 Interchange

Figure 85


94
Taylor TSC I-94 Corridor
User Delay Cost
Total UDC
2012 Recurring
2012 Non Recurring
2013 Recurring
$2,500,000
$2,000,000
$1,500,000
$1,000,000
$500,000
$0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec


Taylor TSC I-94 Corridor
2012 User Delay Cost
Recurring
Non Recurring
30%
Car
Truck
$617,090
Truck
Car
70%
2012 UDC:
$15,637,618

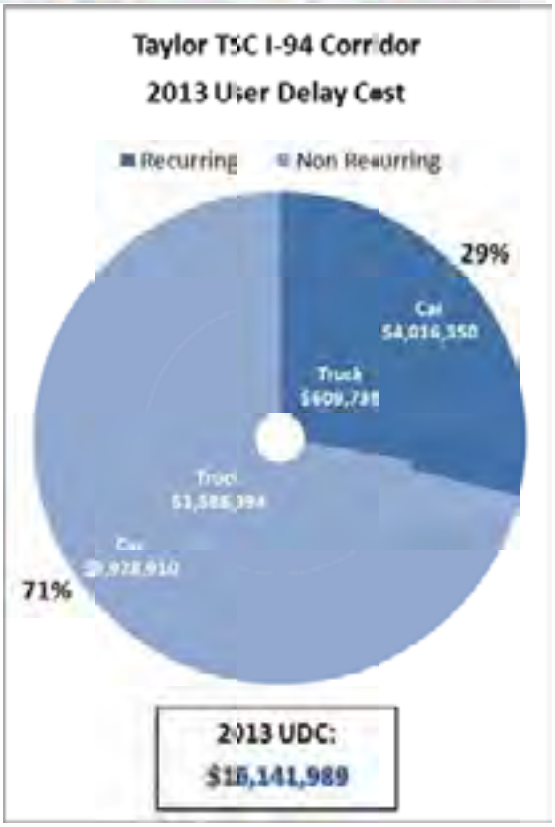
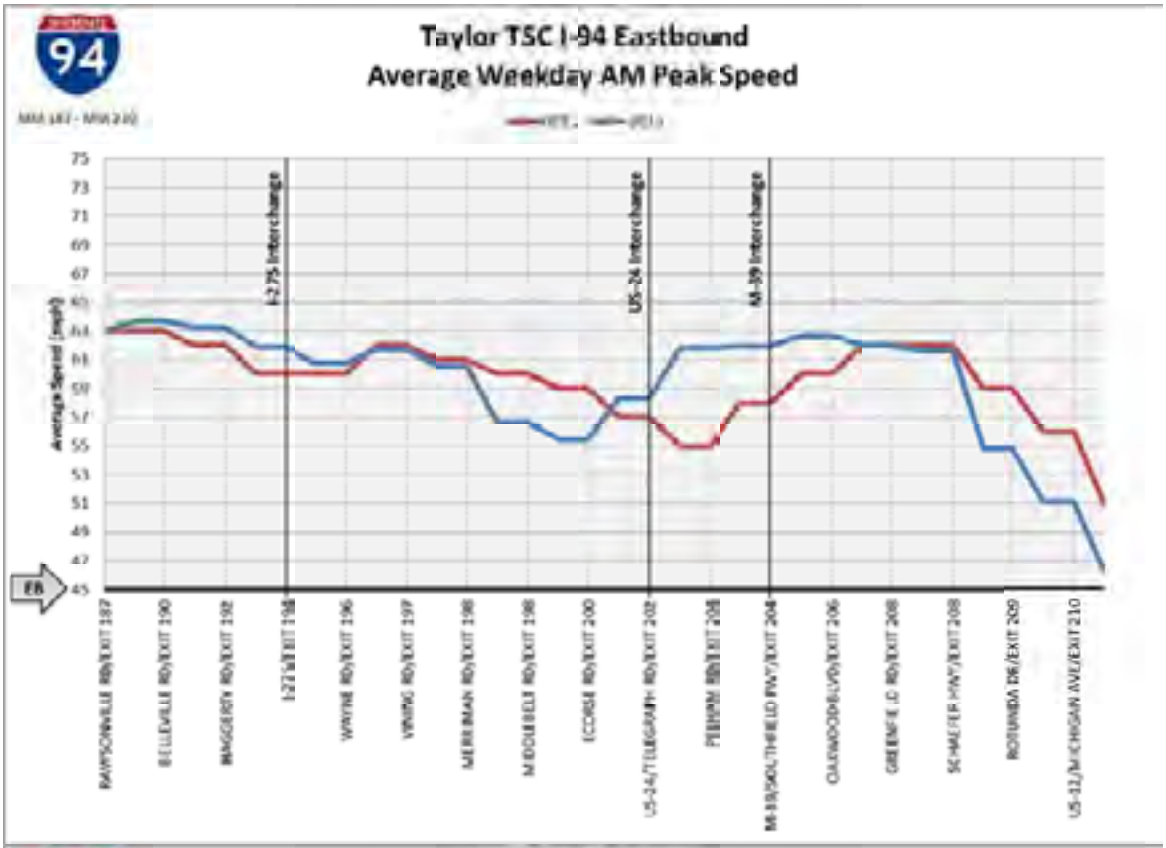

Taylor TSC I-94 Corridor
2013 User Delay Cost
Recurring
Non Recurring
29%
Car
Truck
$609,
Truck
Car
71%
2013 UDC:
$15,141,989

Figure 86


Taylor TSC I-94 Eastbound
Average Weekday AM Peak Speed
I-275 Interchange
US-24 Interchange
M-39 Interchange
EB

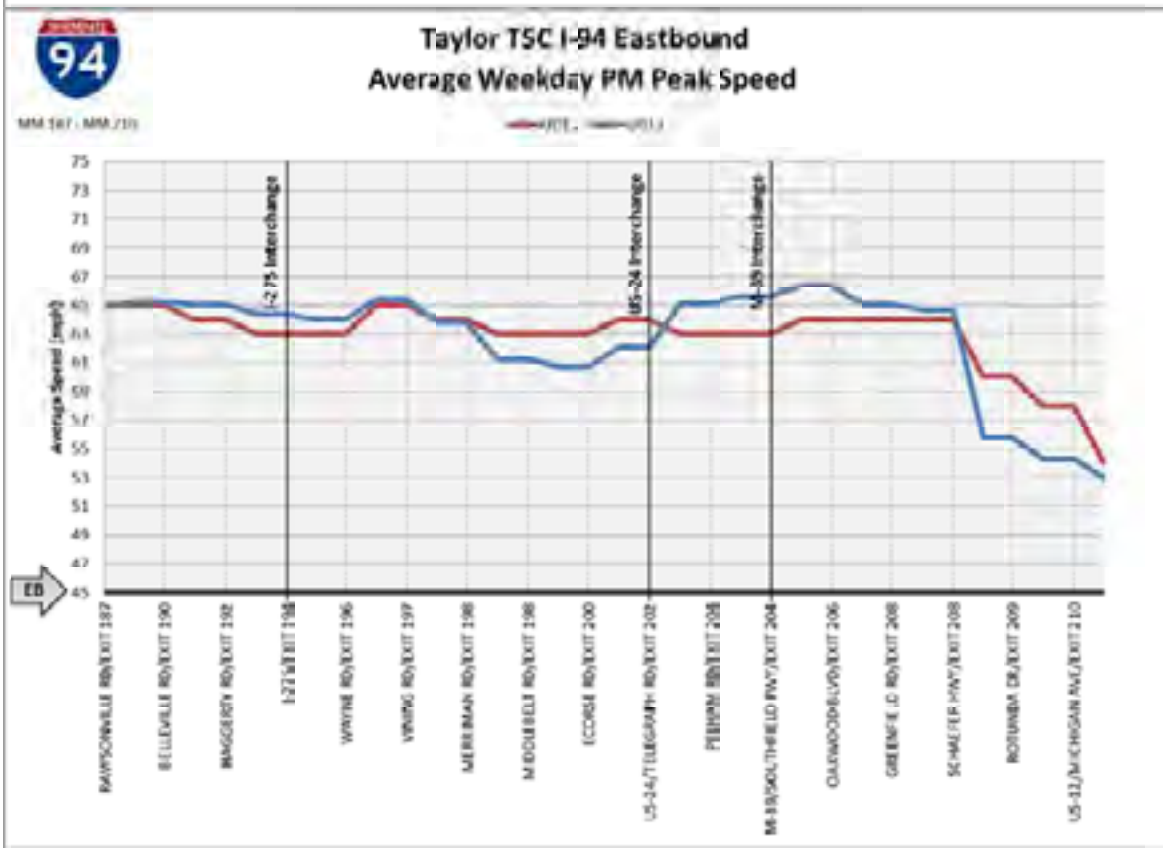
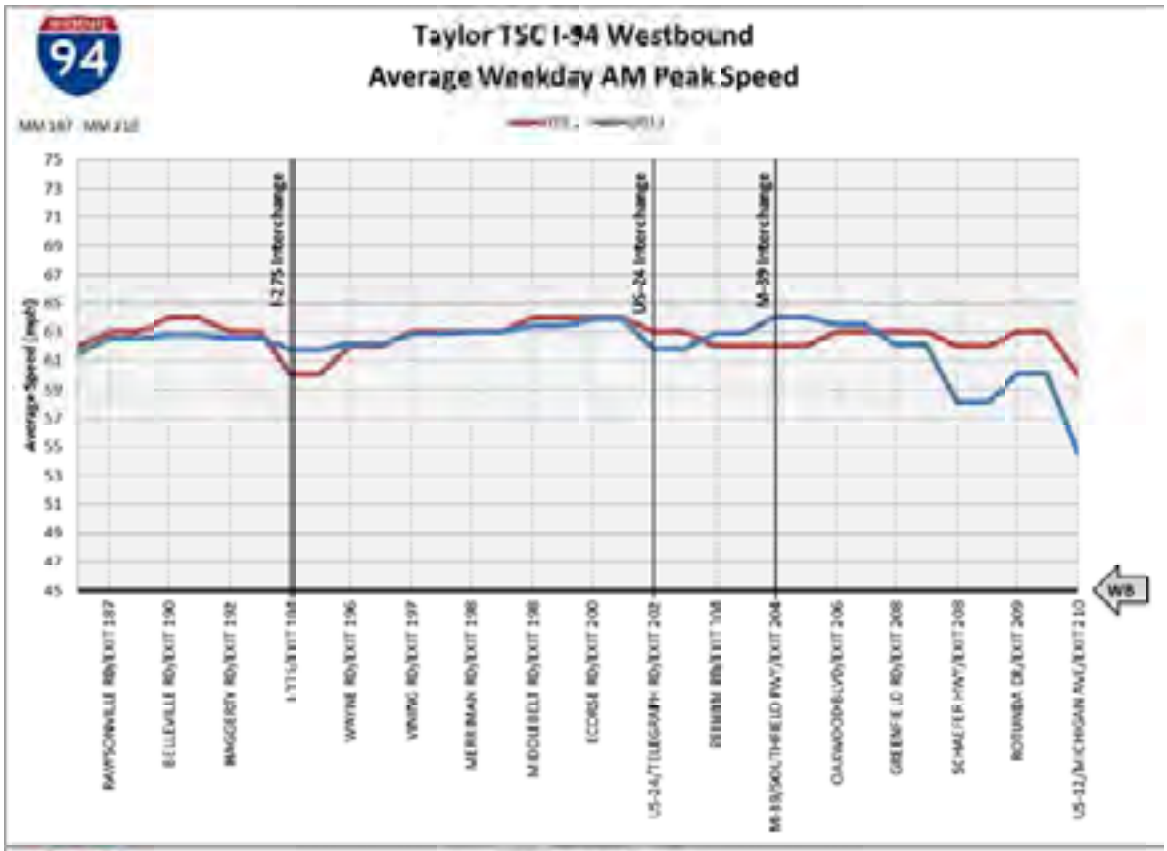

Taylor TSC I-94 Eastbound
Average Weekday PM Peak Speed
I-275 Interchange
US-24 Interchange
M-39 Interchange
EB

Figure 87


94
Taylor TSC I-94 Westbound
Average Weekday AM Peak Speed
Average Speed (mph)
I-275 Interchange
US-24 Interchange
M-39 Interchange
WB

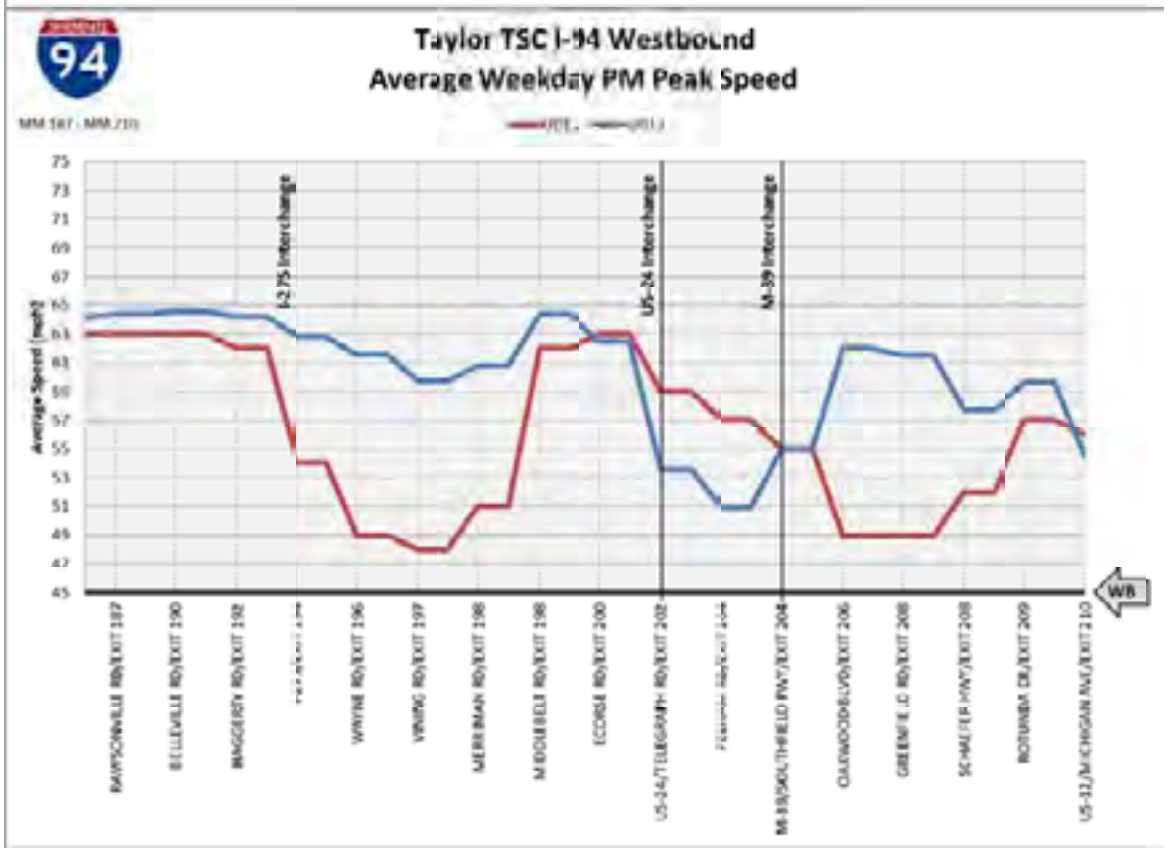
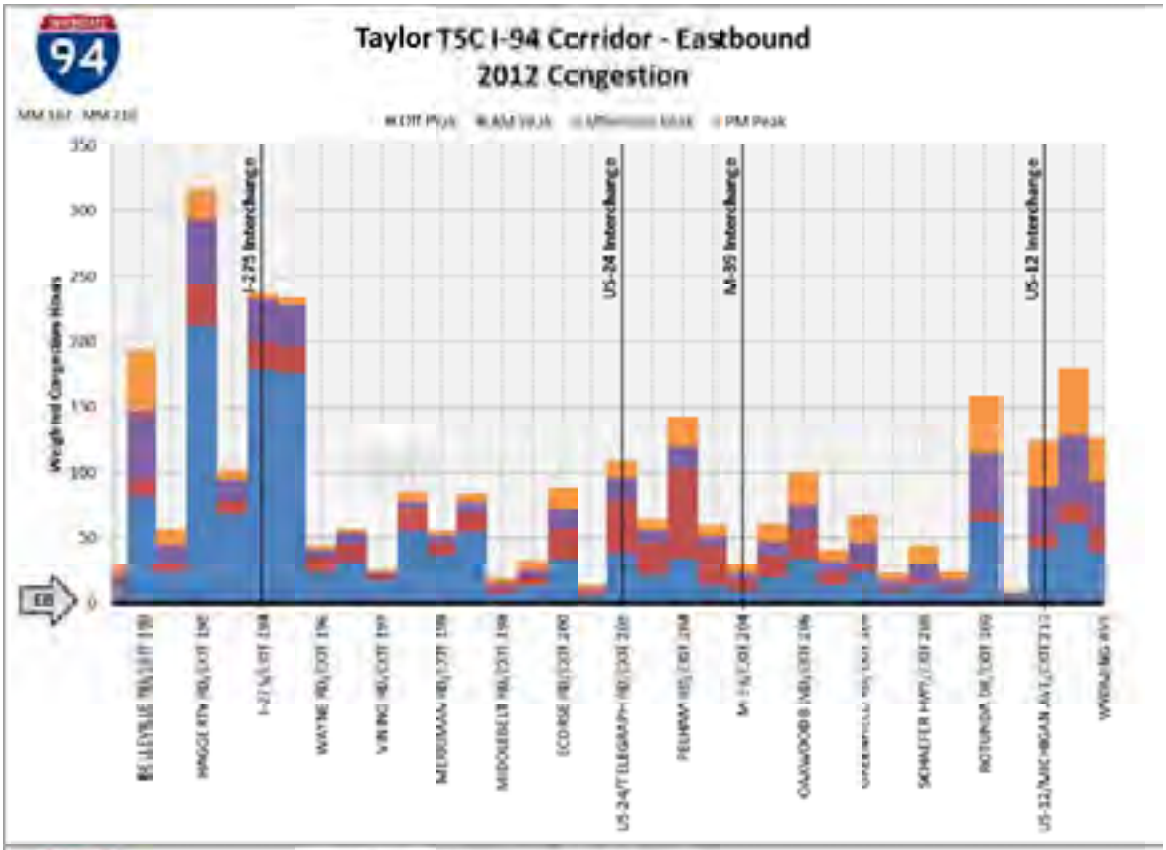

94
Taylor TSC I-94 Westbound
Average Weekday PM Peak Speed
Average Speed (mph)
I-275 Interchange
US-24 Interchange
M-39 Interchange
WB

Figure 88


94
Taylor T5C I-94 Corridor - Eastbound
2012 Congestion
Weighted Congestion Hours
350
300
250
200
150
100
50
0
EB
I-275 Interchange
US-24 Interchange
MI-39 Interchange
US-12 Interchange

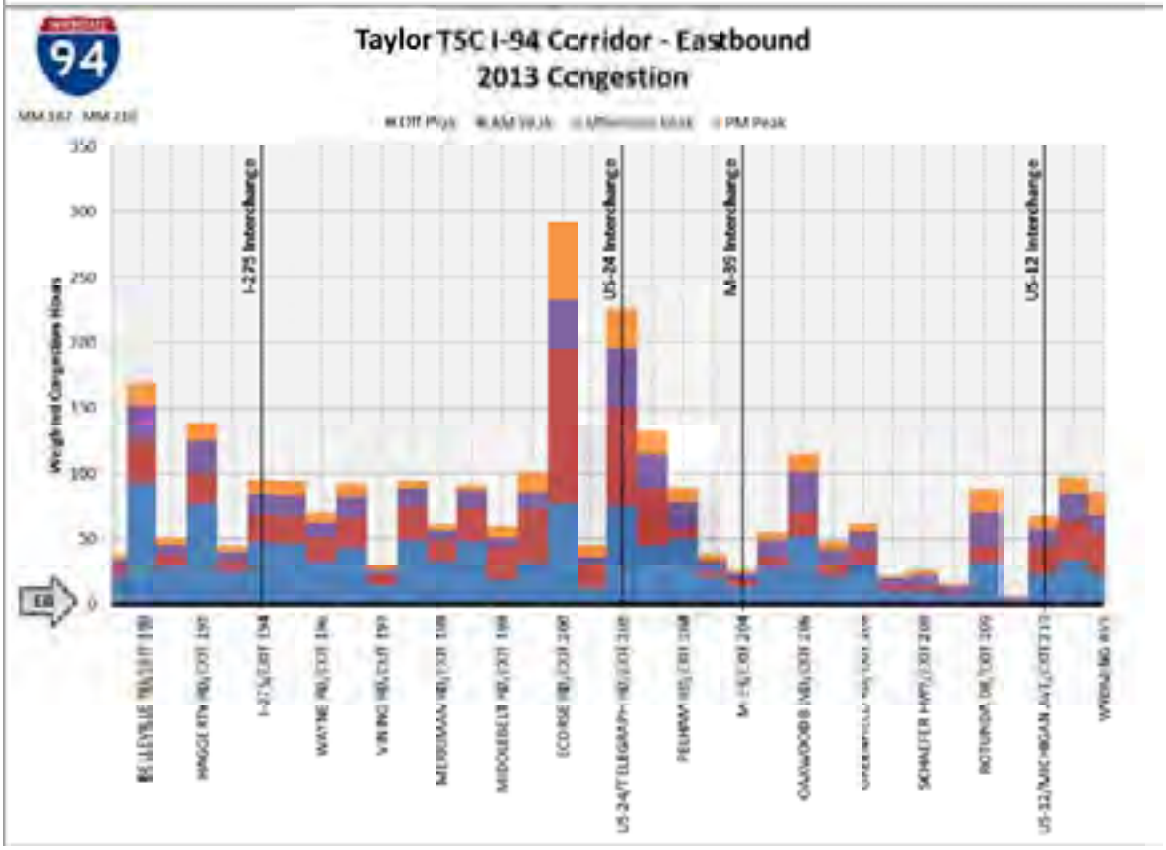
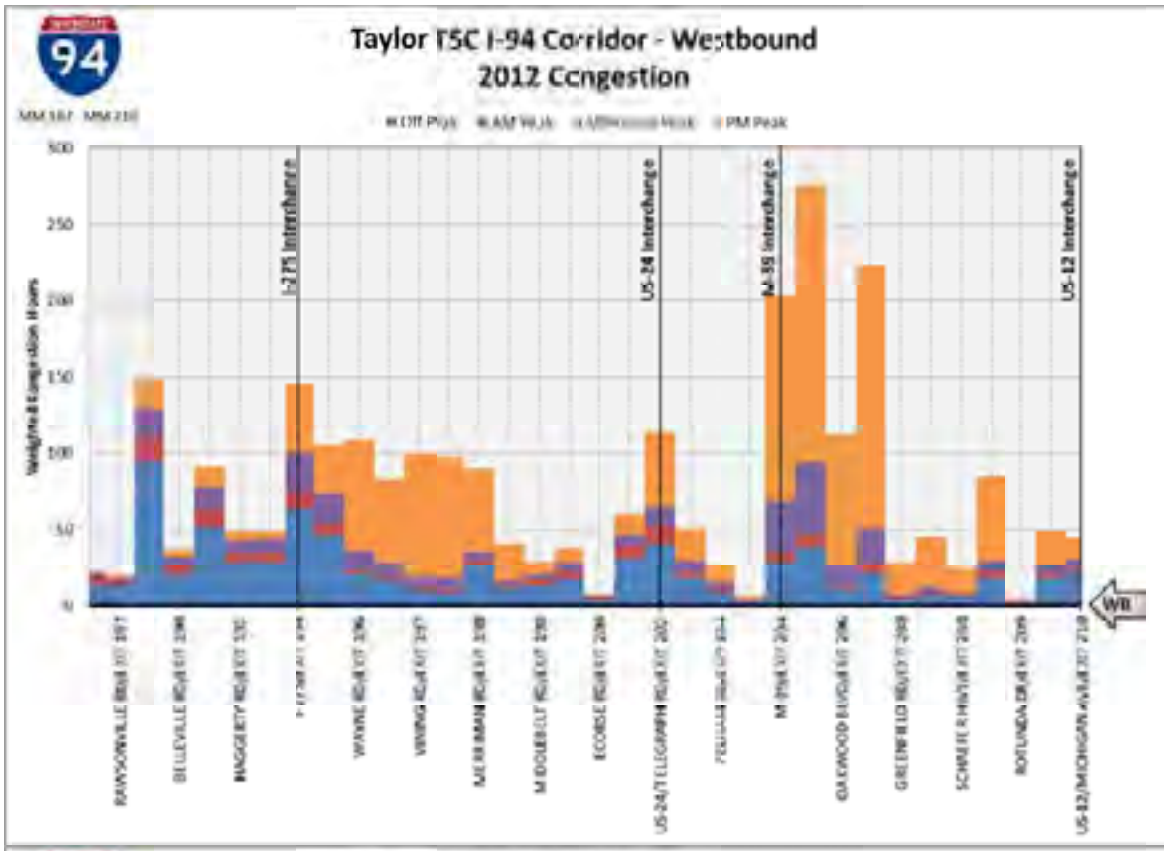

94
Taylor T5C I-94 Corridor - Eastbound
2013 Congestion
Weighted Congestion Hours
350
300
250
200
150
100
50
0
EB
I-275 Interchange
US-24 Interchange
MI-39 Interchange
US-12 Interchange

Figure 89


94
Taylor TSC I-94 Corridor - Westbound
2012 Congestion
I-275 Interchange
US-24 Interchange
M-39 Interchange
US-12 Interchange
WB

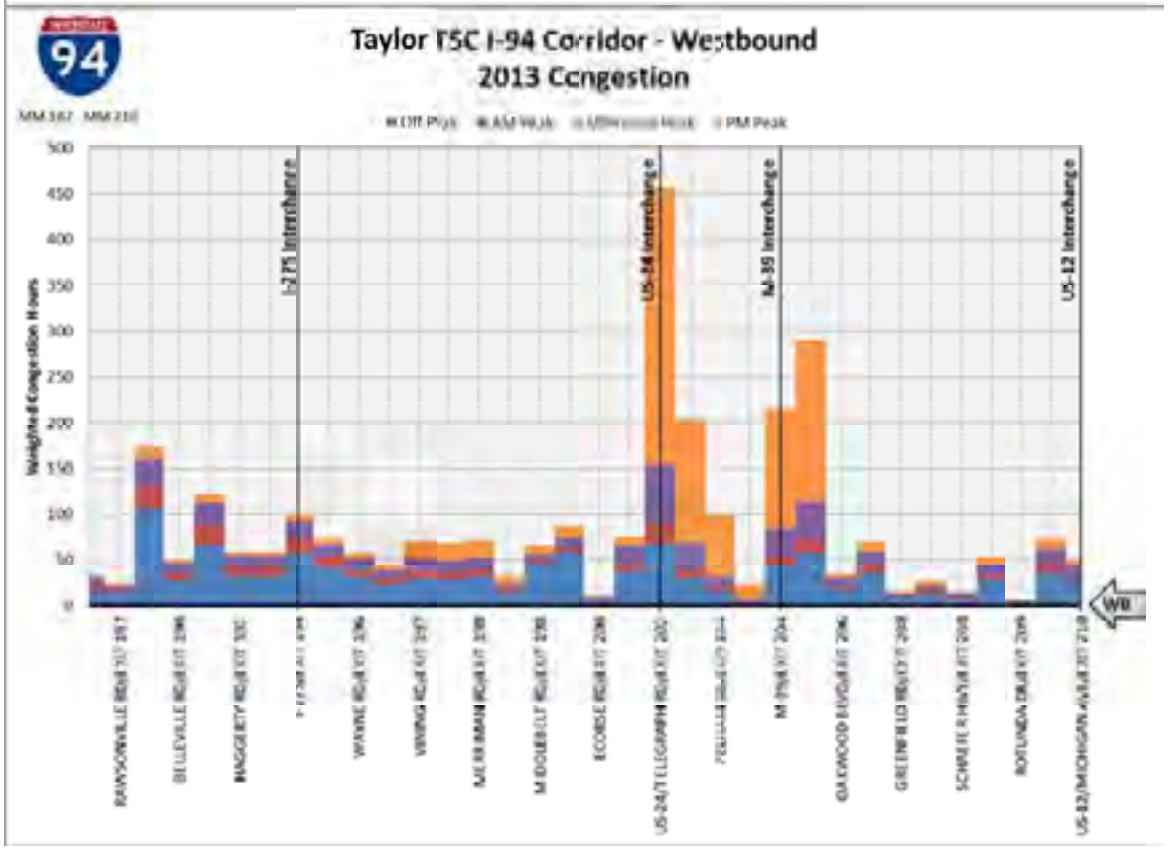

94
Taylor TSC I-94 Corridor - Westbound
2013 Congestion
I-275 Interchange
US-24 Interchange
M-39 Interchange
US-12 Interchange
WB

Figure 90

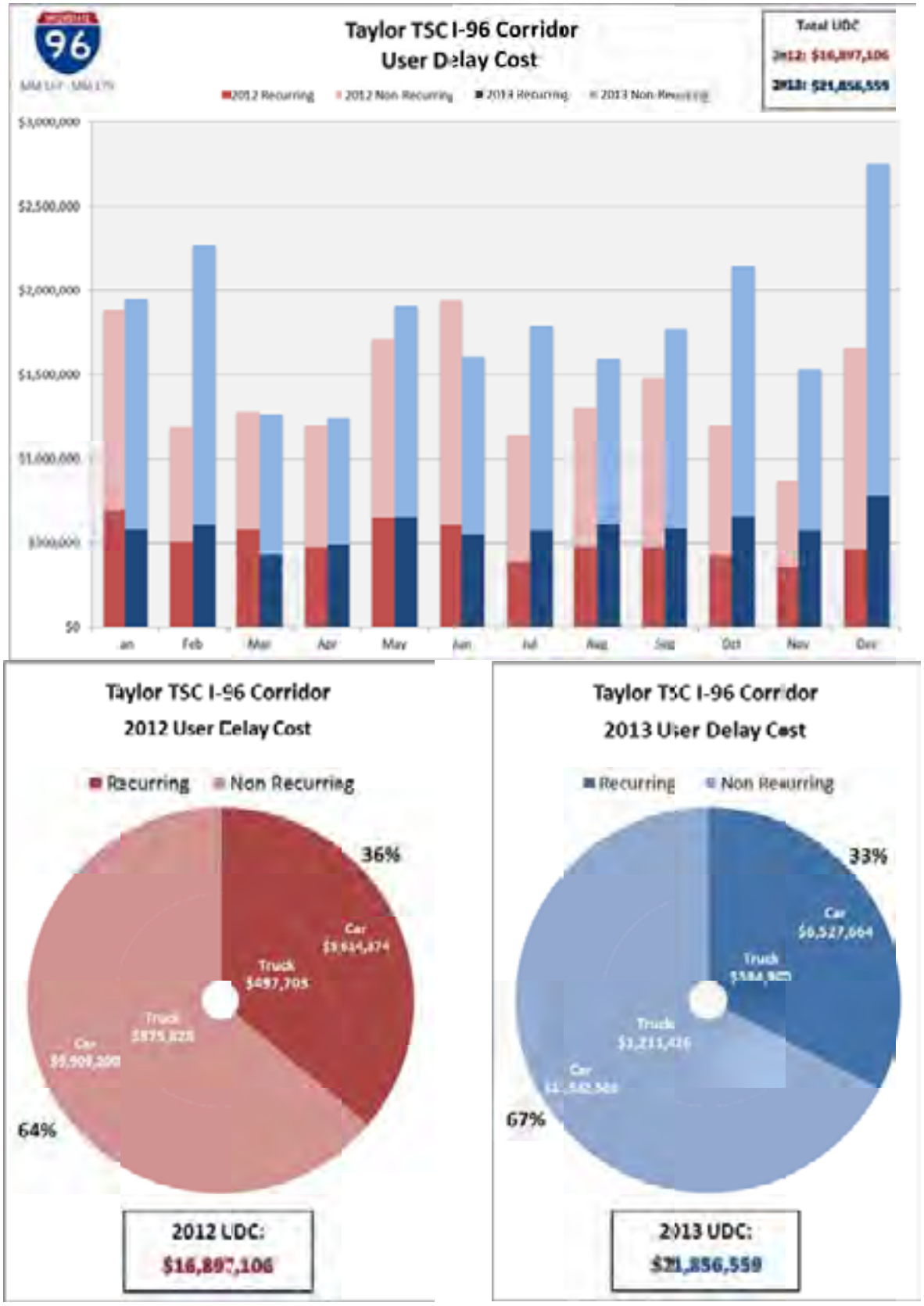
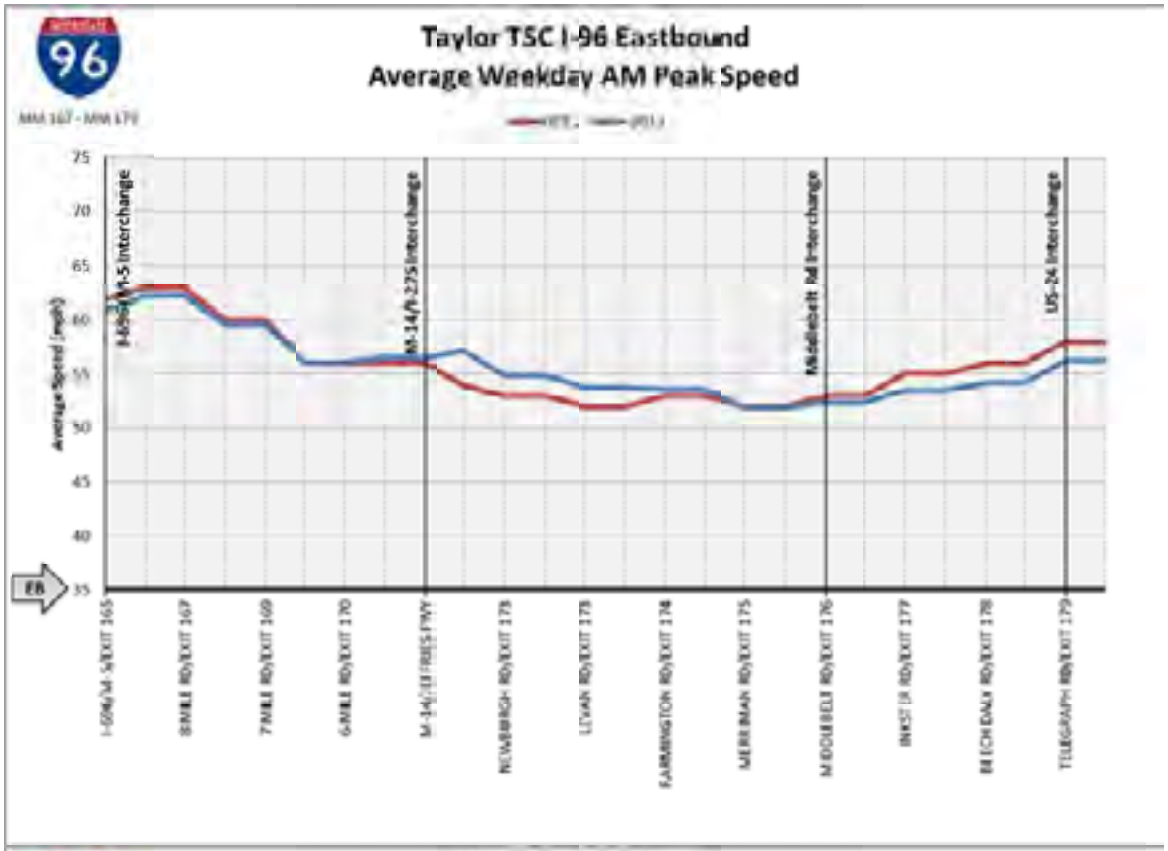

Taylor TSC I-96 Corridor
User Delay Cost
Total UDC
2012 Recurring
2012 Non Recurring
2013 Recurring
2013 Non Recurring
$3,000,000
$2,500,000
$2,000,000
$1,500,000
$1,000,000
$500,000
$0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Taylor TSC I-96 Corridor
2012 User Delay Cost
Recurring
Non Recurring
36%
Car
Truck
$497,705
Truck
Car
64%
2012 UDC:
$16,897,106
Taylor TSC I-96 Corridor
2013 User Delay Cost
Recurring
Non Recurring
33%
Car
$6,527,664
Truck
Truck
Car
67%
2013 UDC:
$21,856,559

Figure 91


96
Taylor TSC I-96 Eastbound
Average Weekday AM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
EB
I-94/M-5 Interchange
M-14/I-275 Interchange
Middlebelt Rd Interchange
US-24 Interchange

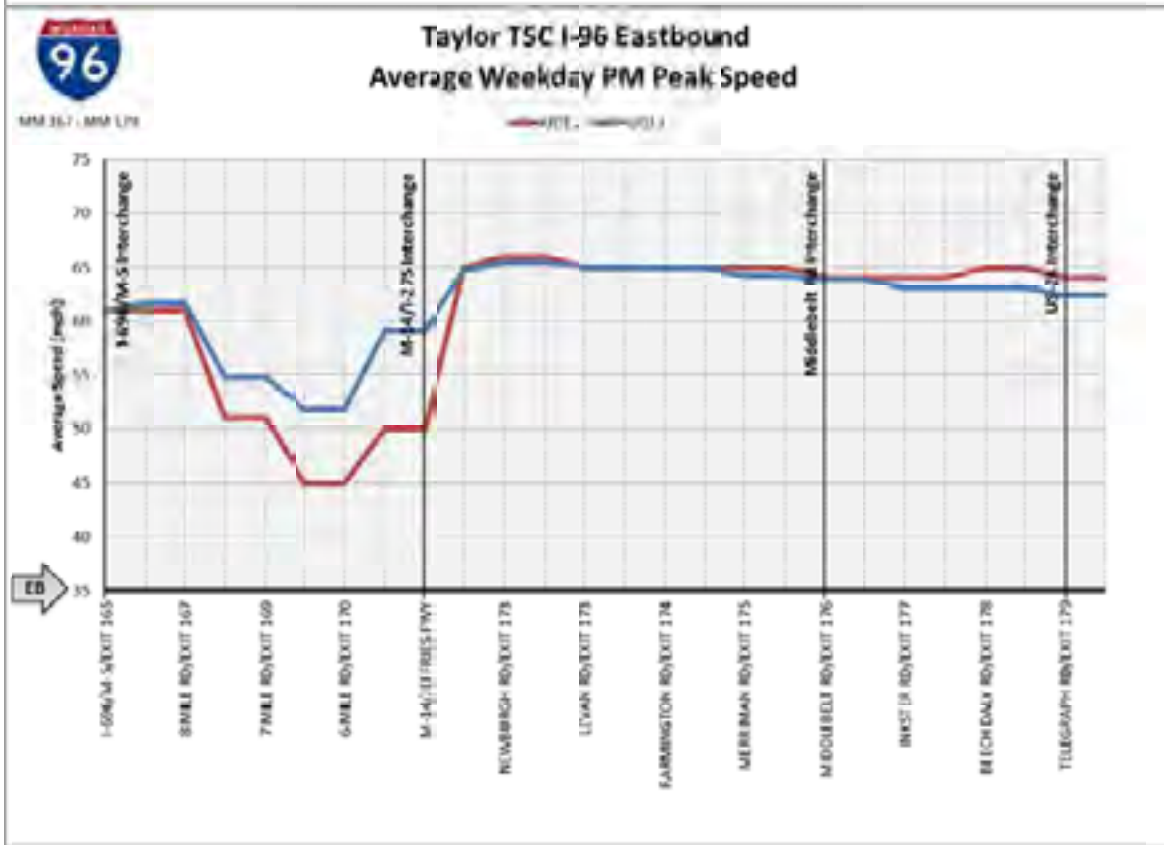
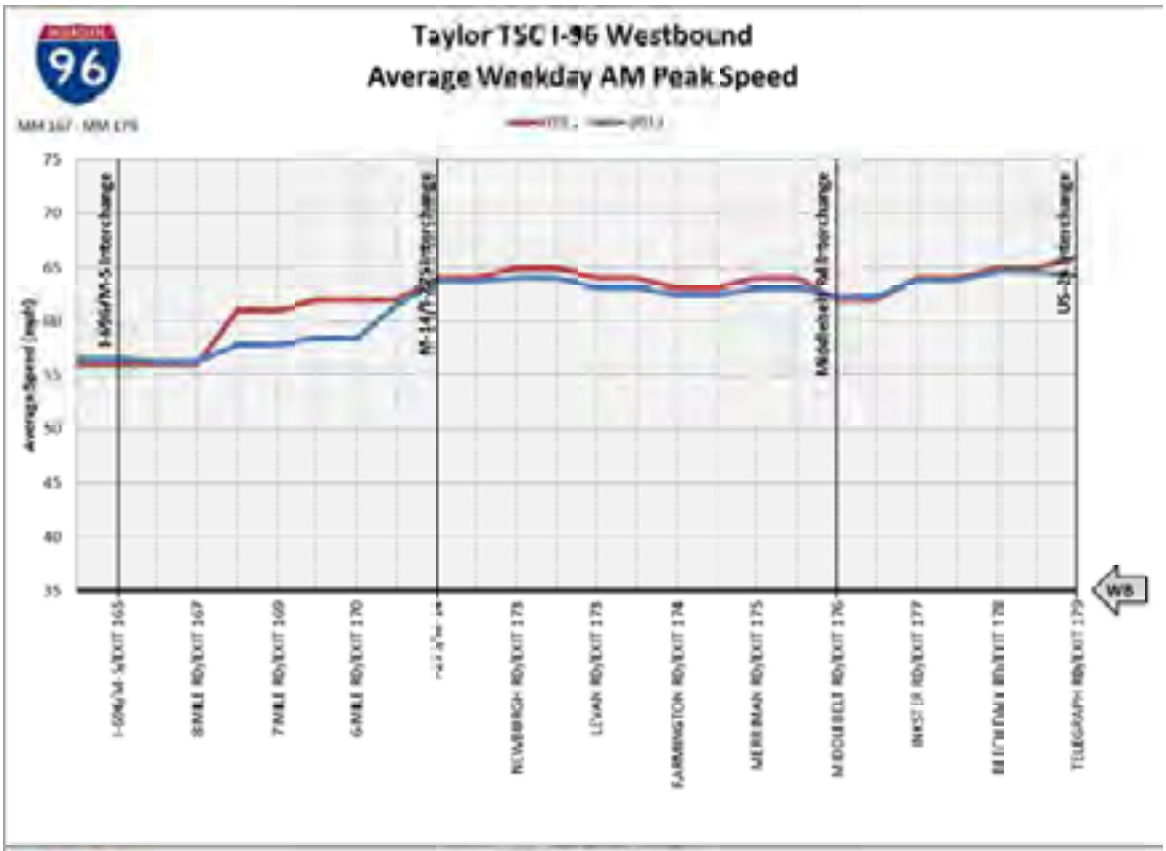

96
Taylor TSC I-96 Eastbound
Average Weekday PM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
EB
I-94/M-5 Interchange
M-14/I-275 Interchange
Middlebelt Rd Interchange
US-24 Interchange

Figure 92


Taylor TSC I-96 Westbound
Average Weekday AM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
I-696/M-5 Interchange
M-14/I-275 Interchange
Middlebelt Rd Interchange
US-24 Interchange
WB
I-696/M-5/EXIT 165
8 MILE RD/EXIT 167
7 MILE RD/EXIT 169
6 MILE RD/EXIT 170
NEWBURGH RD/EXIT 173
LEVAN RD/EXIT 173
FARMINGTON RD/EXIT 174
MERRIMAN RD/EXIT 175
MIDDLEBELT RD/EXIT 176
INKSTER RD/EXIT 177
TELEGRAPH RD/EXIT 179

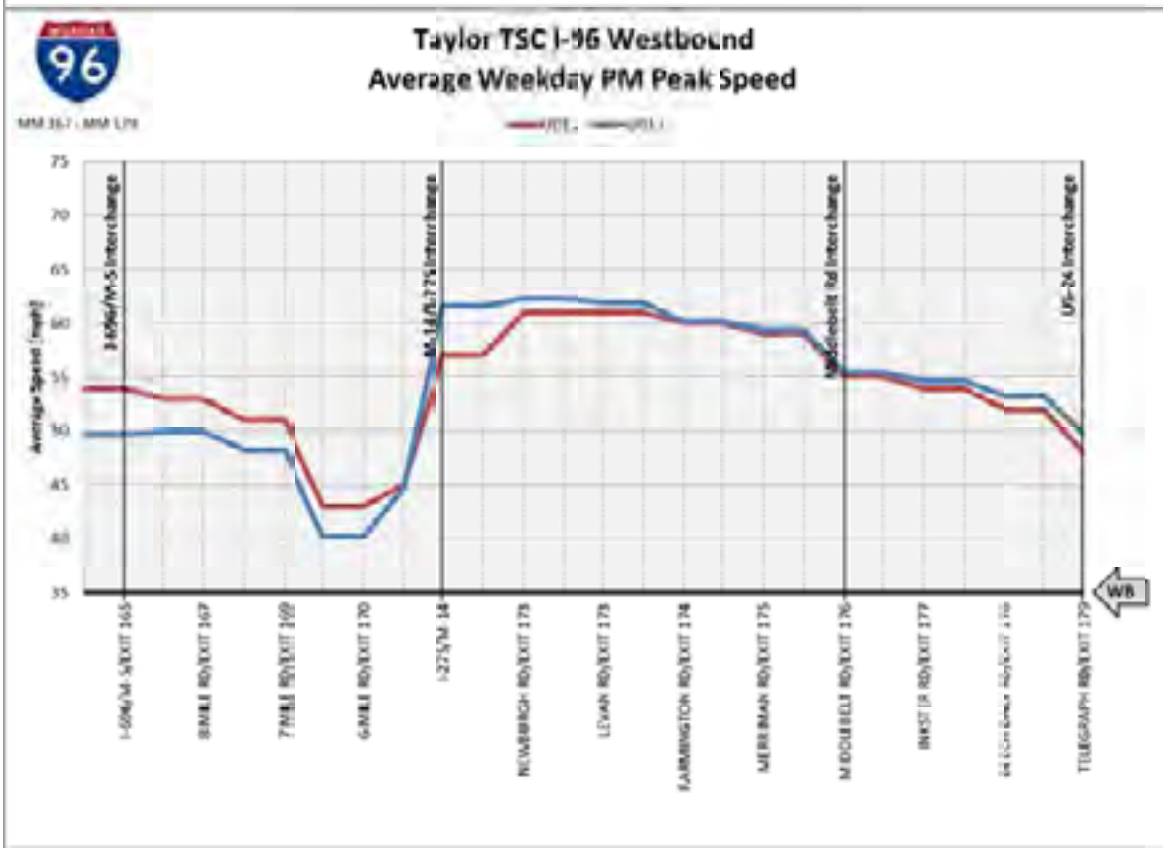
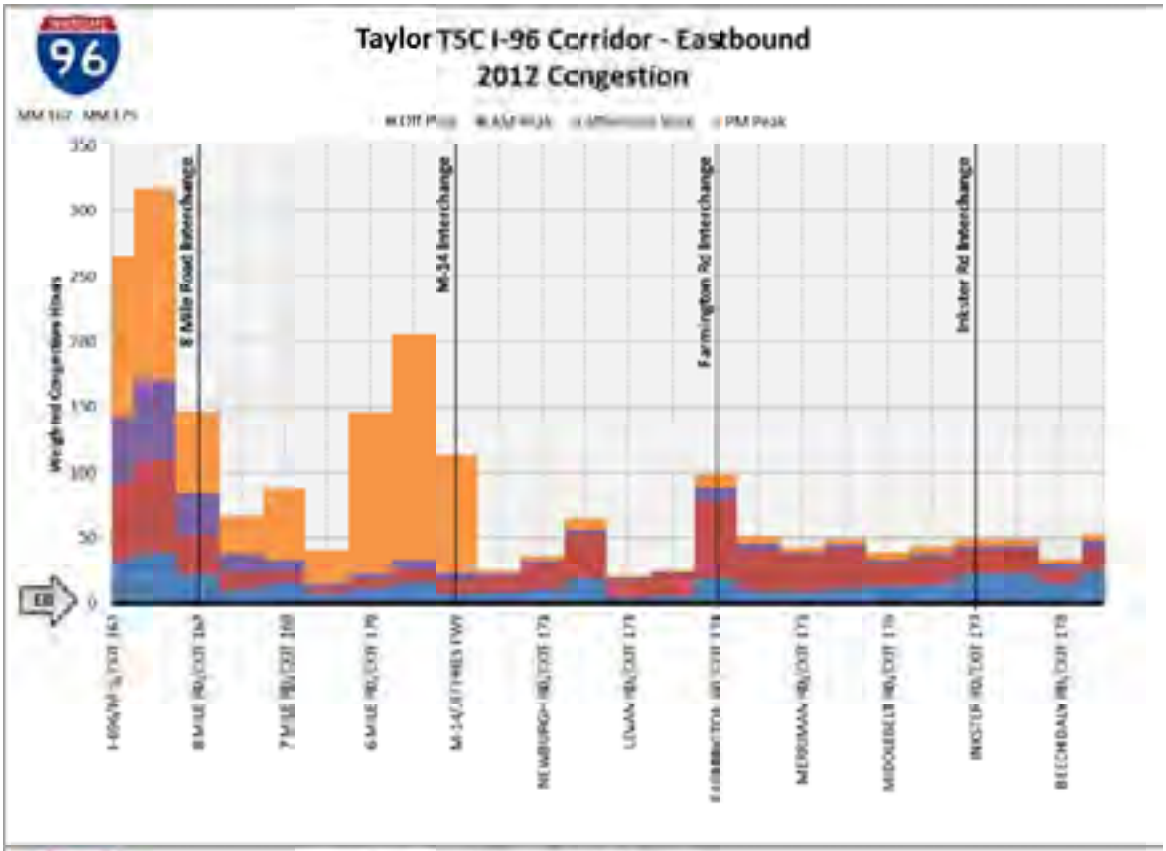

Taylor TSC I-96 Westbound
Average Weekday PM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
I-696/M-5 Interchange
M-14/I-275 Interchange
Middlebelt Rd Interchange
US-24 Interchange
WB
I-696/M-5/EXIT 165
8 MILE RD/EXIT 167
7 MILE RD/EXIT 169
6 MILE RD/EXIT 170
I-275/M-14
NEWBURGH RD/EXIT 173
LEVAN RD/EXIT 173
FARMINGTON RD/EXIT 174
MERRIMAN RD/EXIT 175
MIDDLEBELT RD/EXIT 176
INKSTER RD/EXIT 177
TELEGRAPH RD/EXIT 179

Figure 93


96
Taylor TSC I-96 Corridor - Eastbound
2012 Congestion
Weighted Congestion Hours
8 Mile Road Interchange
M-34 Interchange
Farmington Rd Interchange
Inkster Rd Interchange

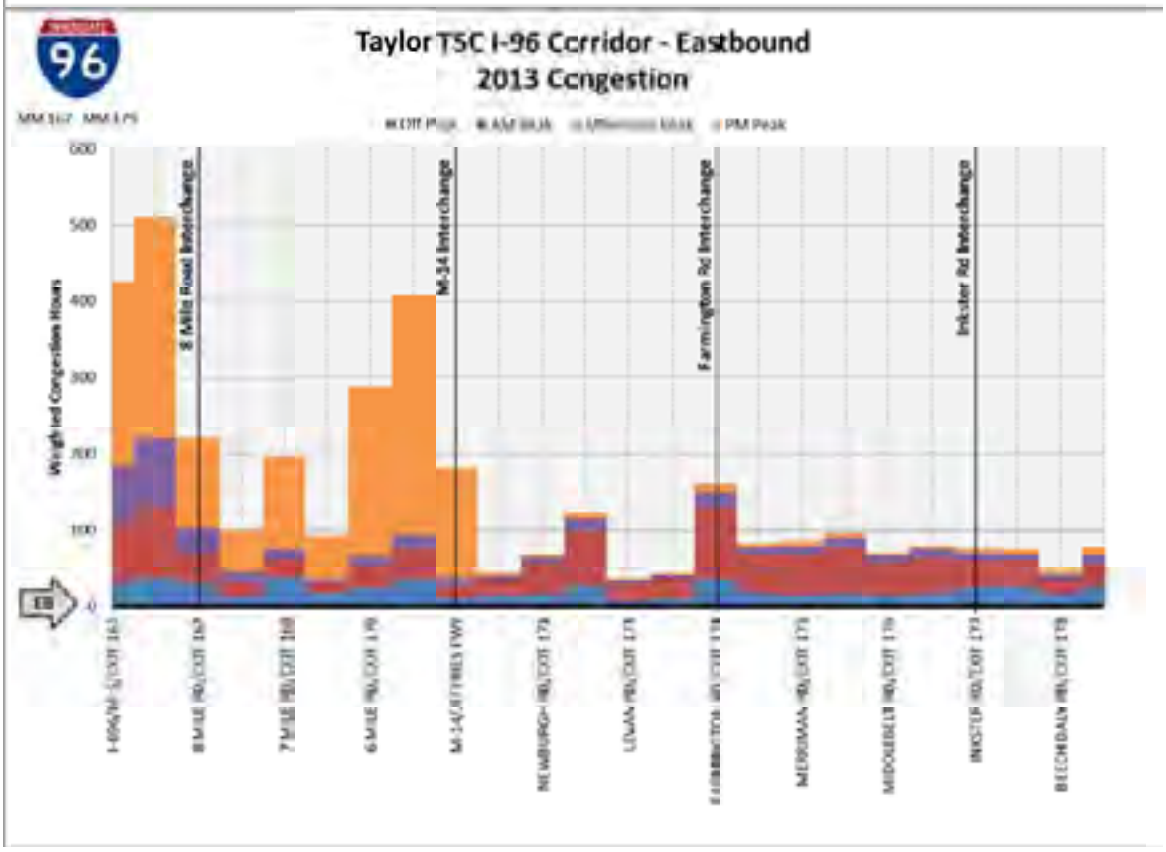
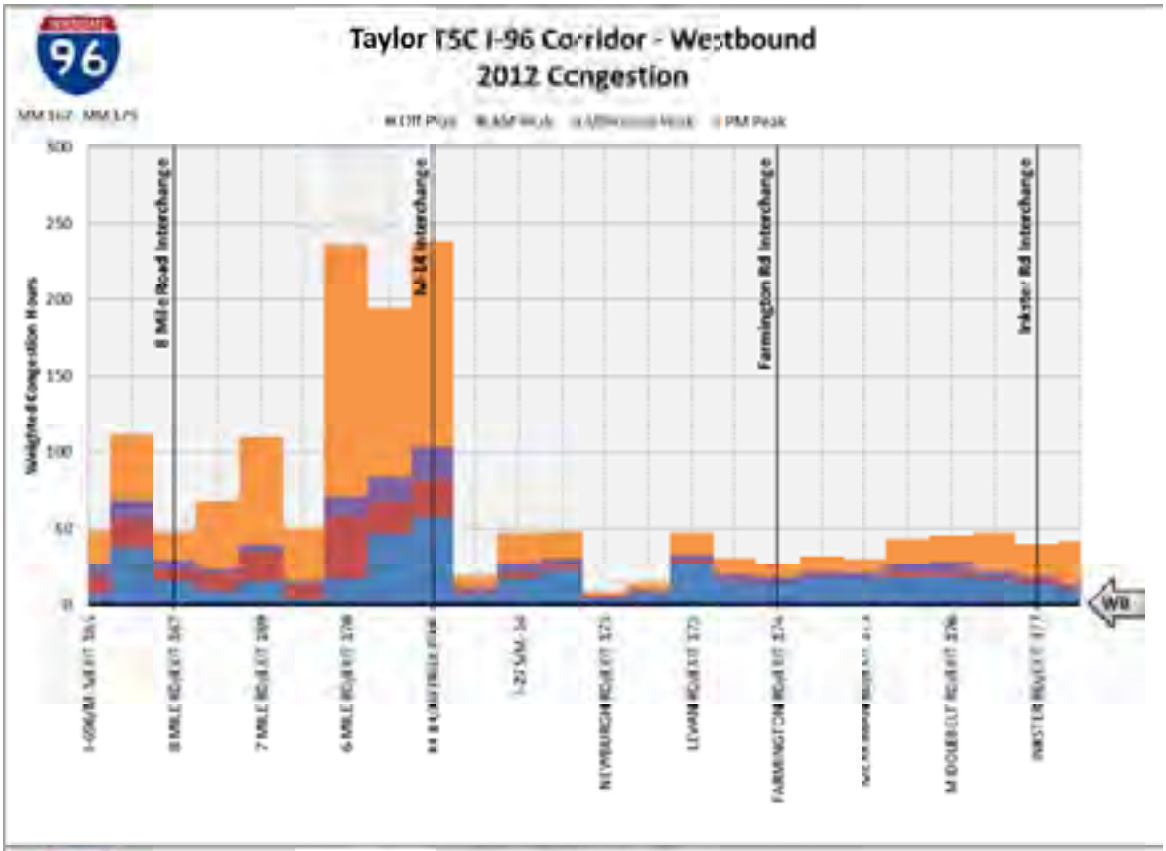

96
Taylor TSC I-96 Corridor - Eastbound
2013 Congestion
Weighted Congestion Hours
8 Mile Road Interchange
M-34 Interchange
Farmington Rd Interchange
Inkster Rd Interchange

Figure 94


Taylor TSC I-96 Corridor - Westbound
2012 Congestion
8 Mile Road Interchange
M-14 Interchange
Farmington Rd Interchange
Inkster Rd Interchange
WB

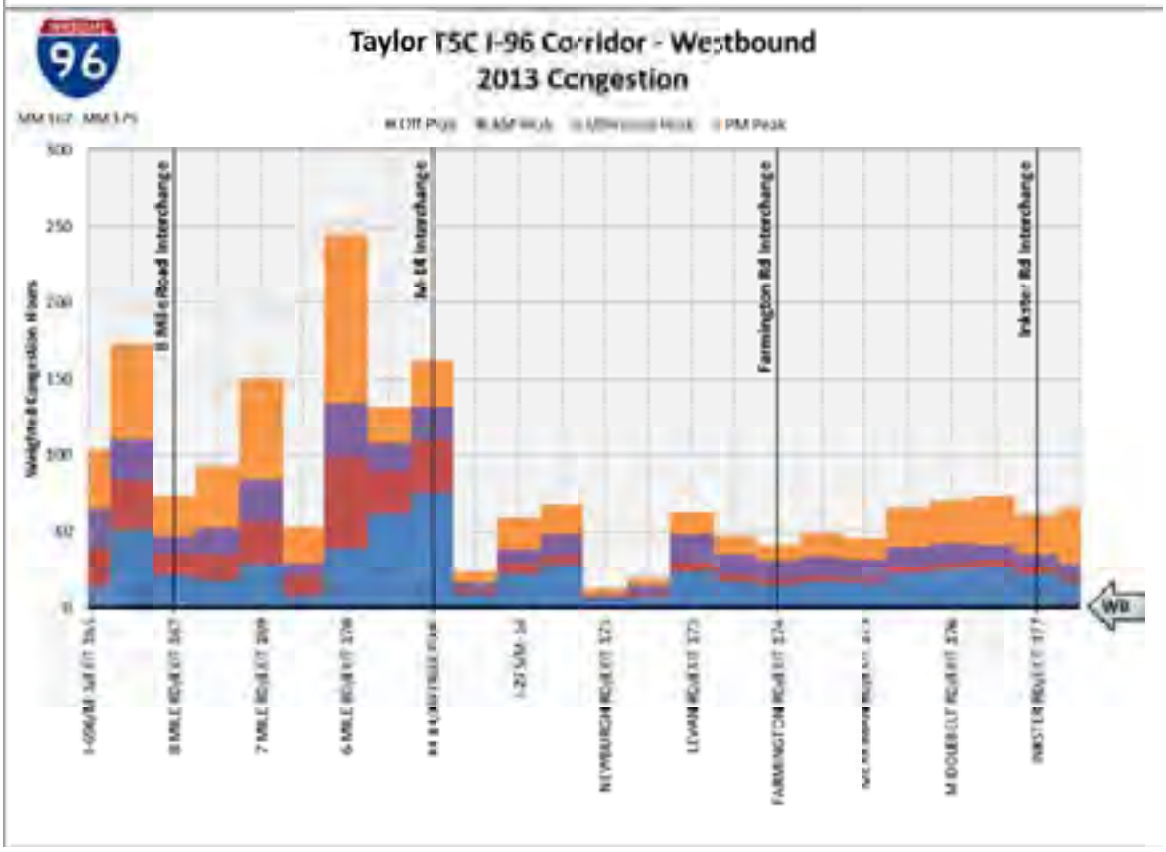
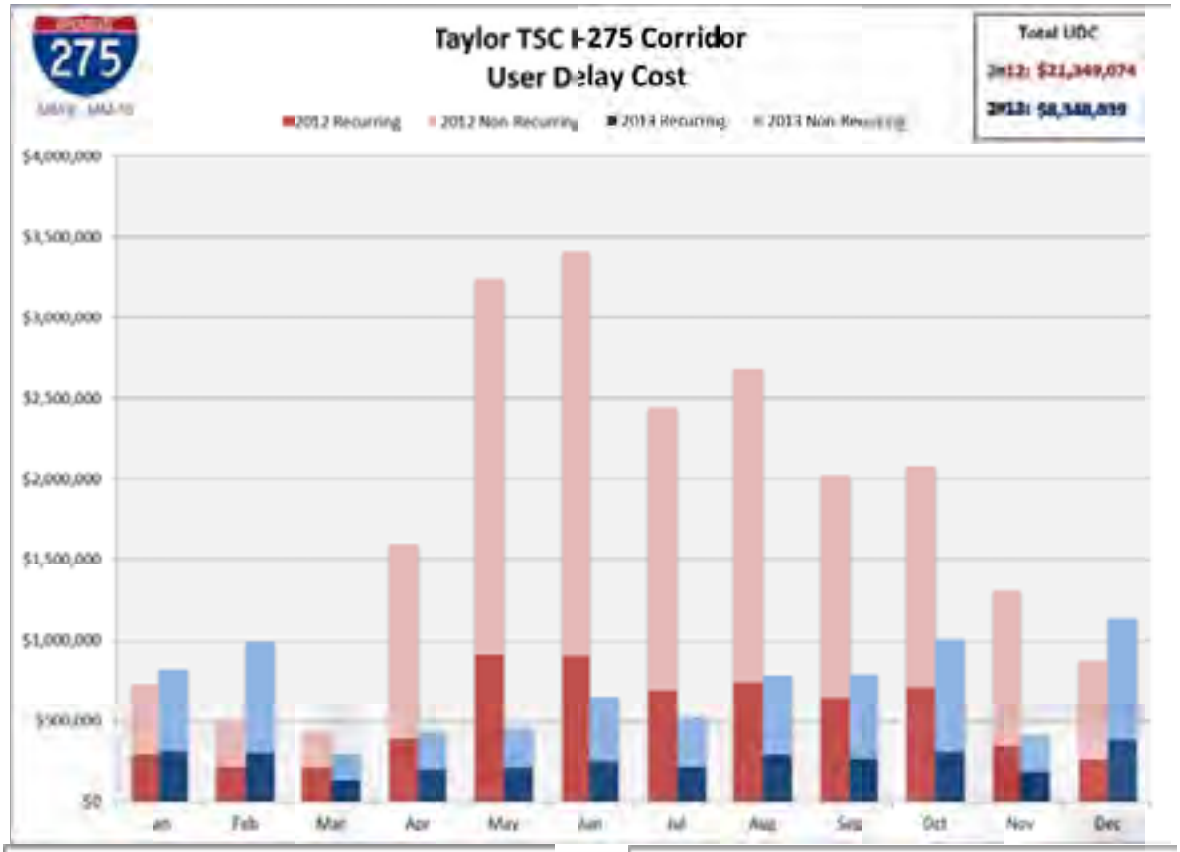
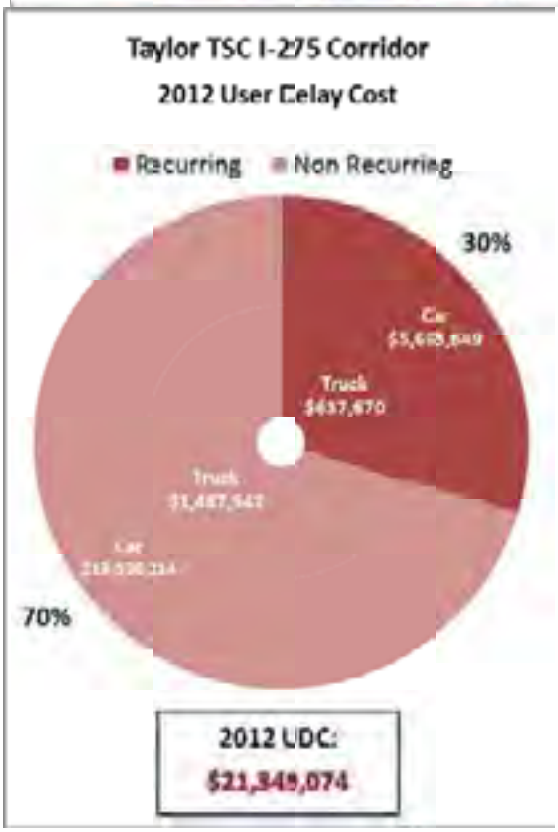

Taylor TSC I-96 Corridor - Westbound
2013 Congestion
8 Mile Road Interchange
M-14 Interchange
Farmington Rd Interchange
Inkster Rd Interchange
WB

Figure 95


275
Taylor TSC I-275 Corridor
User Delay Cost
Total UDC
2012 Recurring
2012 Non Recurring
2013 Recurring
$4,000,000
$3,500,000
$3,000,000
$2,500,000
$2,000,000
$1,500,000
$1,000,000
$500,000
$0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec


Taylor TSC I-275 Corridor
2012 User Delay Cost
Recurring
Non Recurring
30%
Car
Truck
$637,870
Truck
Car
70%
2012 UDC:
$21,349,074

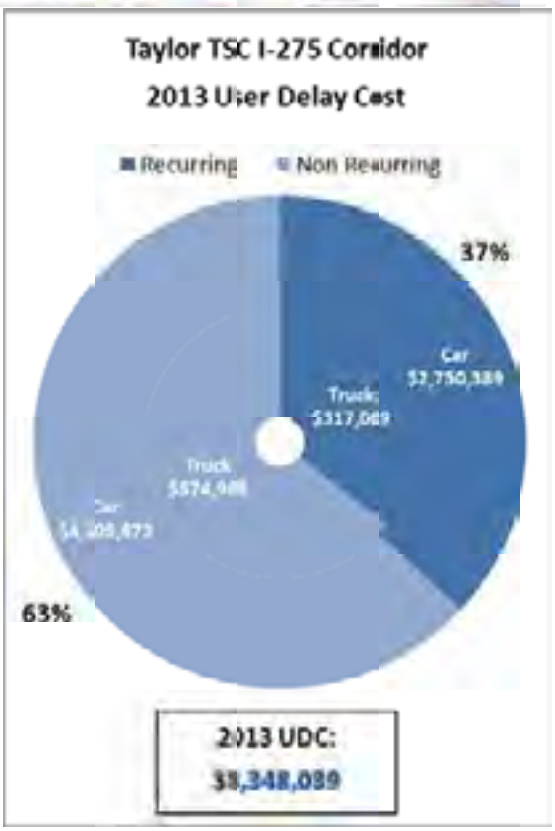
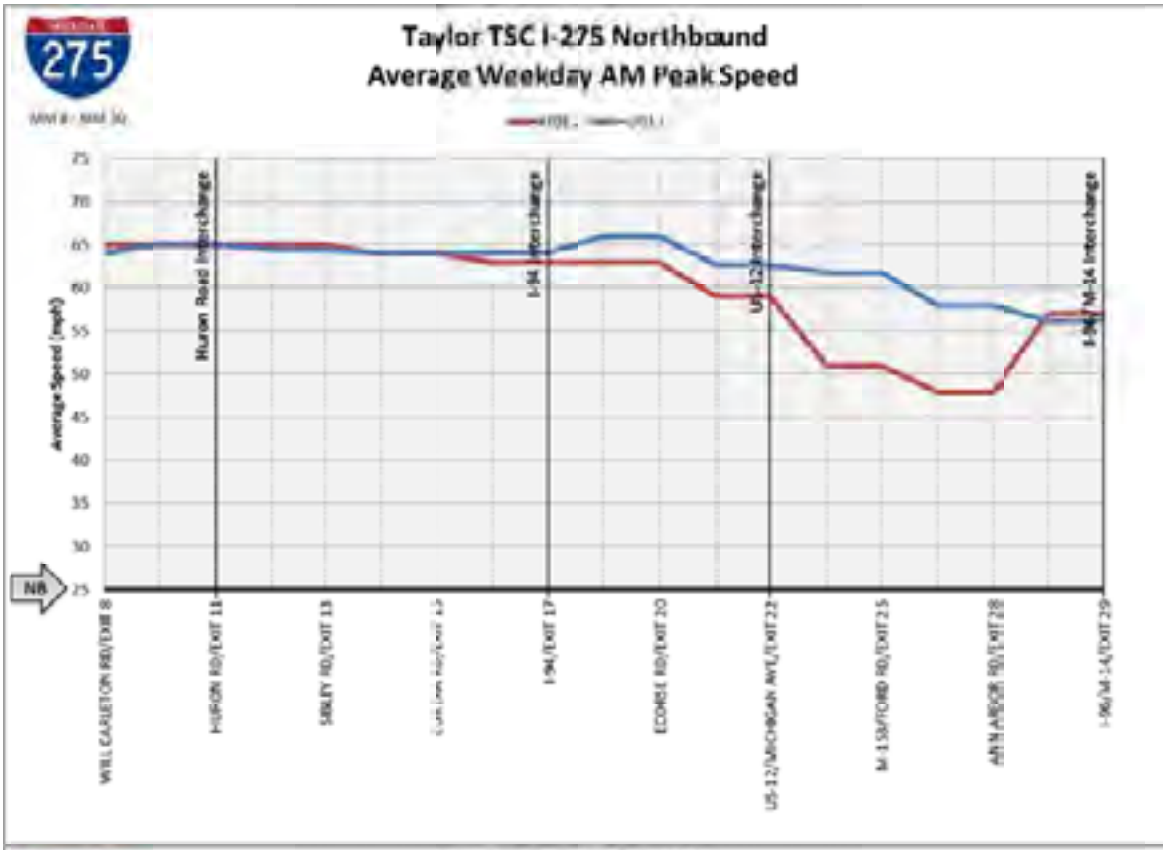

Taylor TSC I-275 Corridor
2013 User Delay Cost
Recurring
Non Recurring
37%
Car
$2,750,389
Truck
$317,089
Truck
$874,988
63%
2013 UDC:
$8,348,039

Figure 96


275
Taylor TSC I-275 Northbound
Average Weekday AM Peak Speed
Average Speed (mph)
NB
Huron Road Interchange
I-94 Interchange
US-12 Interchange
I-96/M-14 Interchange

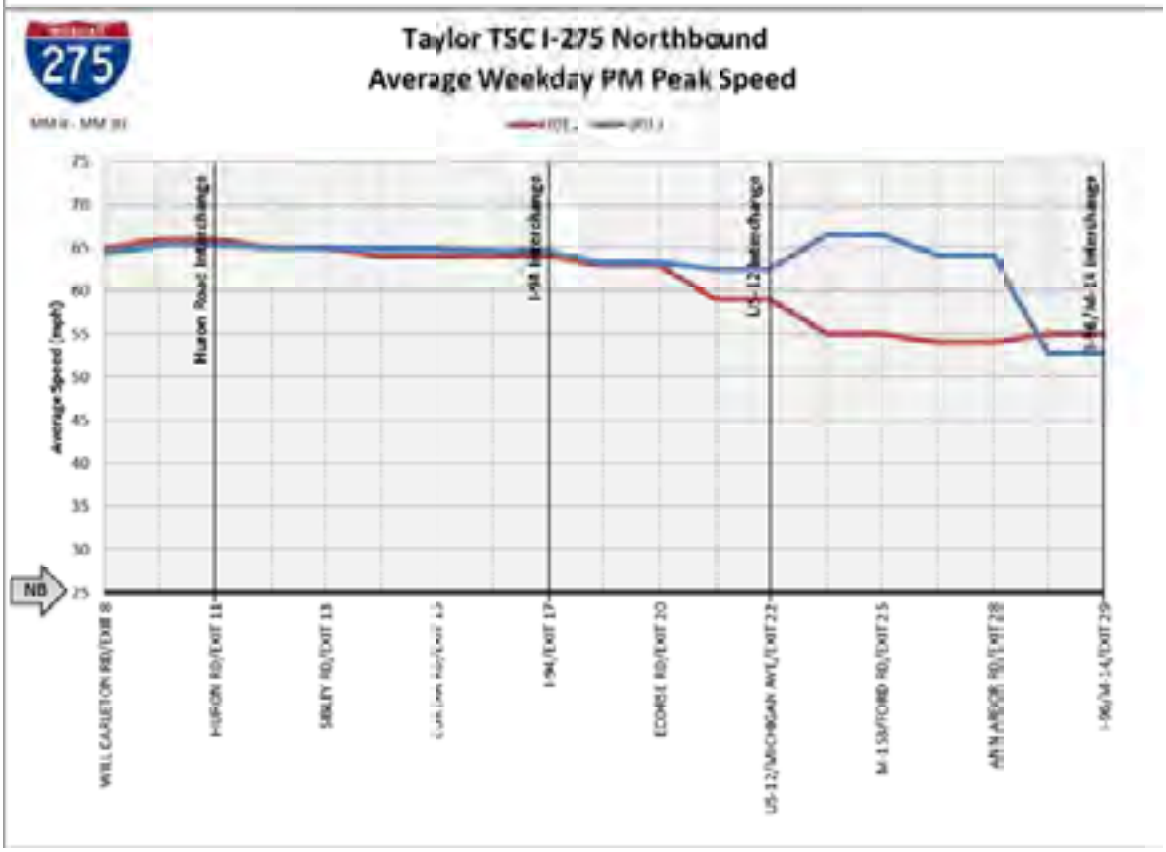
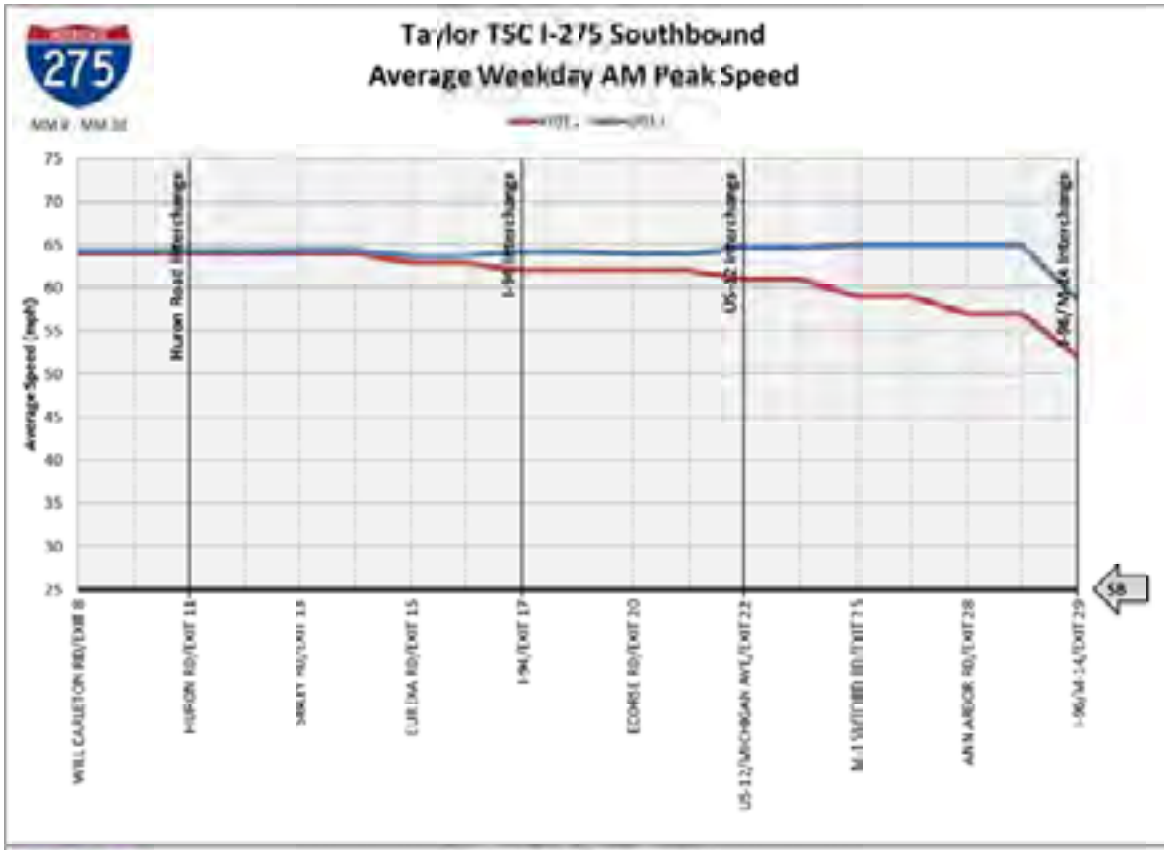

275
Taylor TSC I-275 Northbound
Average Weekday PM Peak Speed
Average Speed (mph)
NB
Huron Road Interchange
I-94 Interchange
US-12 Interchange

Figure 97


275
Taylor TSC I-275 Southbound
Average Weekday AM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
30
25
Huron Road Interchange
I-94 Interchange
US-12 Interchange
I-96/M-14 Interchange
WILL CARLETON RD/EXIT 8
HURON RD/EXIT 11
SIBLEY RD/EXIT 13
EUREKA RD/EXIT 15
I-94/EXIT 17
ECORSE RD/EXIT 20
US-12/MICHIGAN AVE/EXIT 22
ANN ARBOR RD/EXIT 28
I-96/M-14/EXIT 29

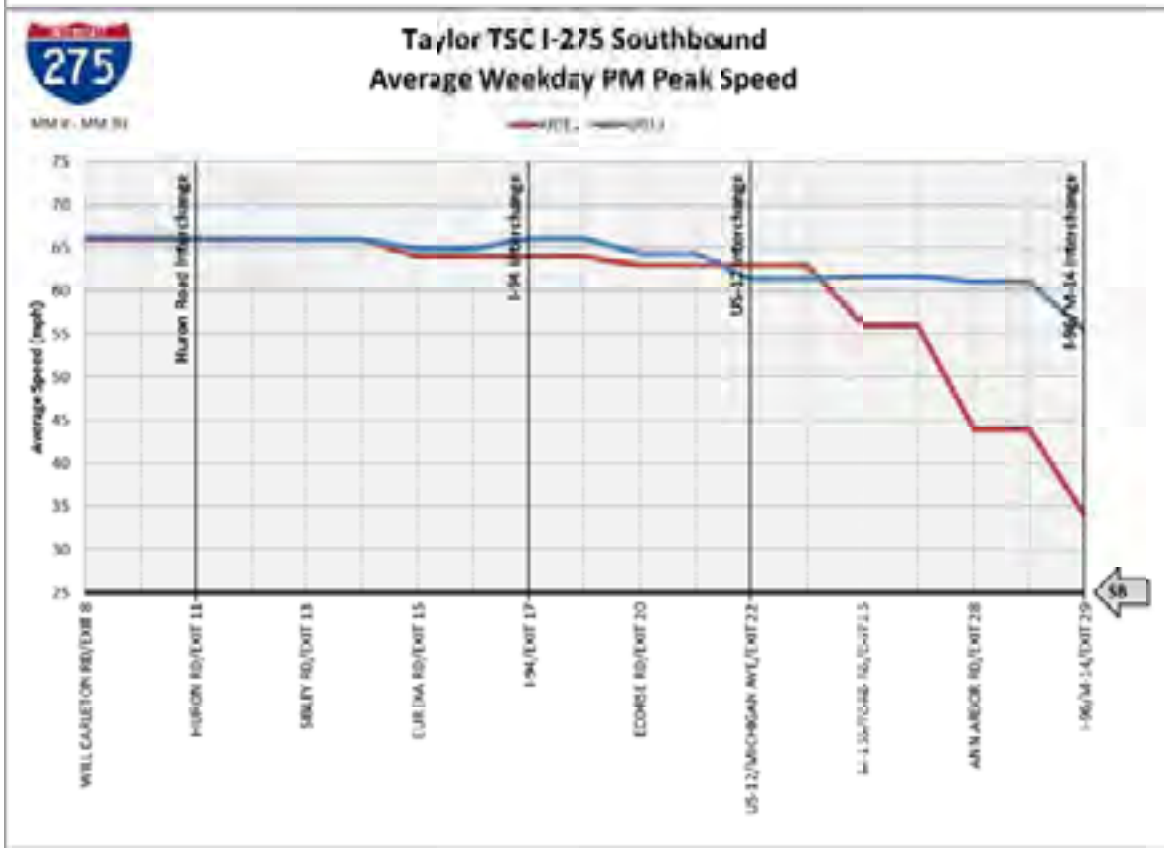

275
Taylor TSC I-275 Southbound
Average Weekday PM Peak Speed
Average Speed (mph)
75
70
65
60
55
50
45
40
35
30
25
Huron Road Interchange
I-94 Interchange
US-12 Interchange
I-96/M-14 Interchange
WILL CARLETON RD/EXIT 8
HURON RD/EXIT 11
SIBLEY RD/EXIT 13
EUREKA RD/EXIT 15
I-94/EXIT 17
ECORSE RD/EXIT 20
US-12/MICHIGAN AVE/EXIT 22
ANN ARBOR RD/EXIT 28
I-96/M-14/EXIT 29

Figure 98

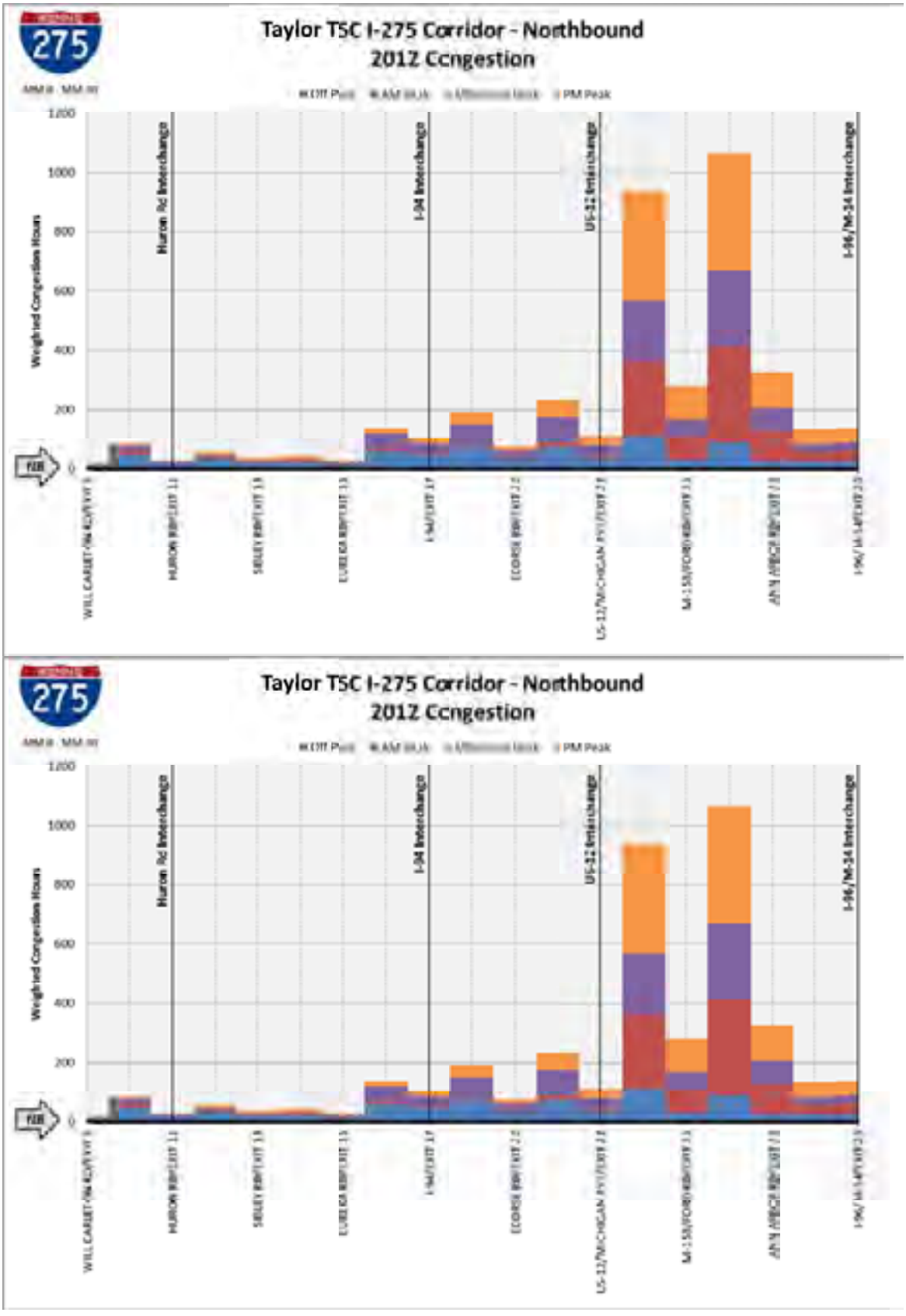
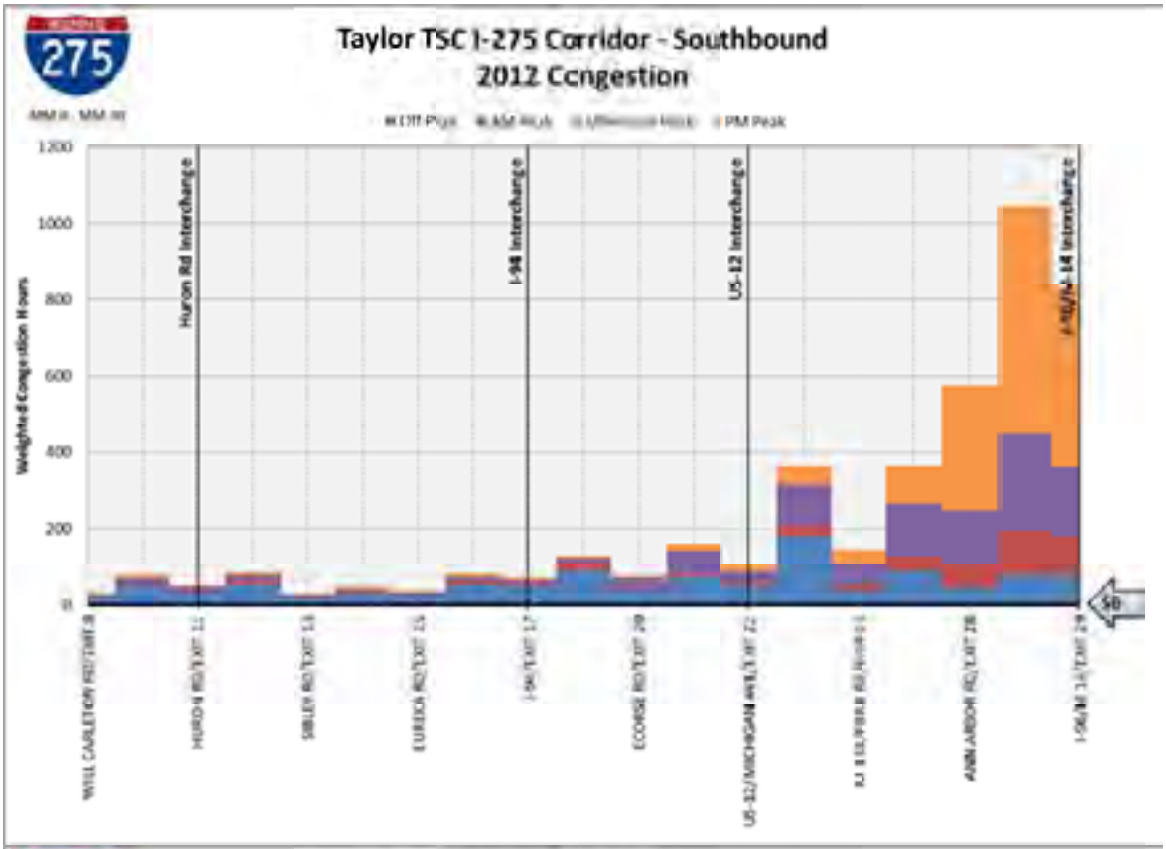

275
Taylor TSC I-275 Corridor - Northbound
2012 Congestion
Weighted Congestion Hours
1200
1000
800
600
400
200
0
Huron Rc Interchange
I-94 Interchange
US-12/Michigan Interchange
I-96/M-14 Interchange
PM Peak
275
Taylor TSC I-275 Corridor - Northbound
2012 Congestion
Weighted Congestion Hours
1200
1000
800
600
400
200
0
Huron Rc Interchange
I-94 Interchange
US-12/Michigan Interchange
I-96/M-14 Interchange
PM Peak

Figure 99


275
Taylor TSC I-275 Corridor - Southbound
2012 Congestion
Weighted Congestion Hours
Huron Rd Interchange
I-94 Interchange
US-12 Interchange
I-96/M-14 Interchange
SB

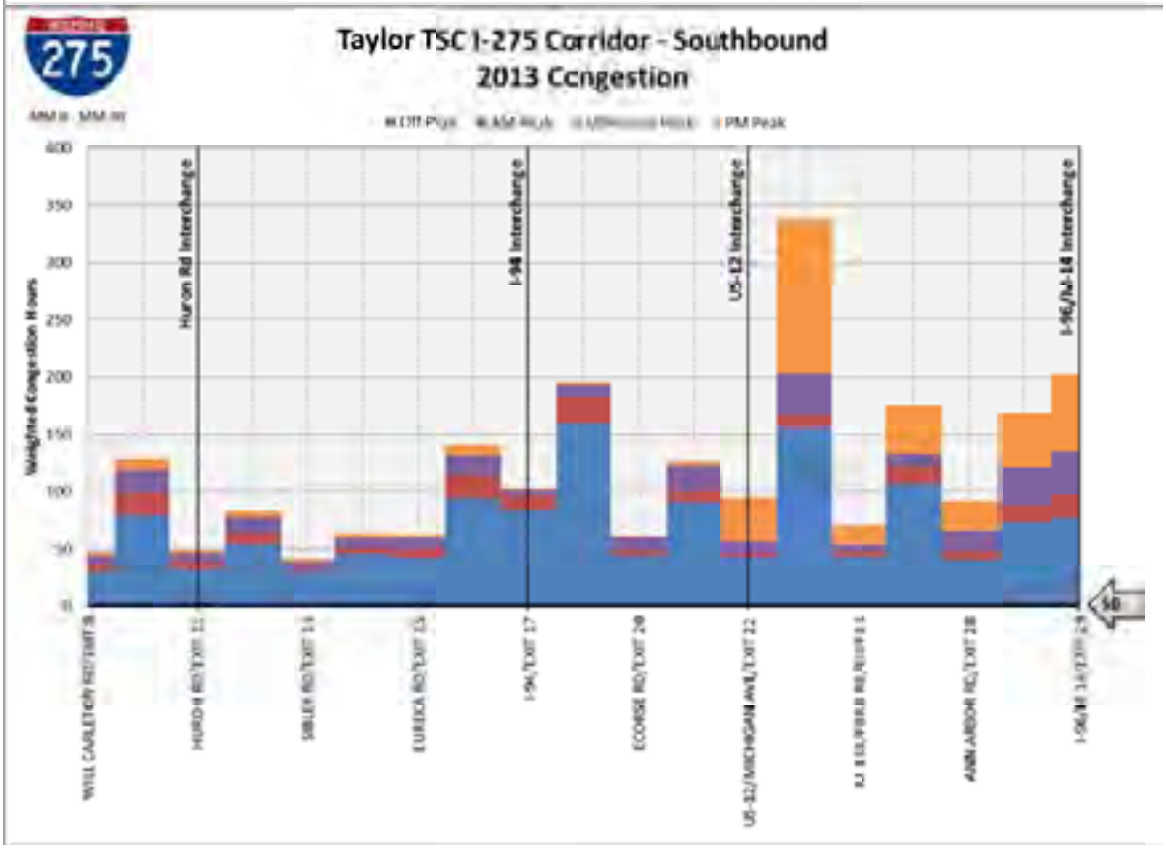
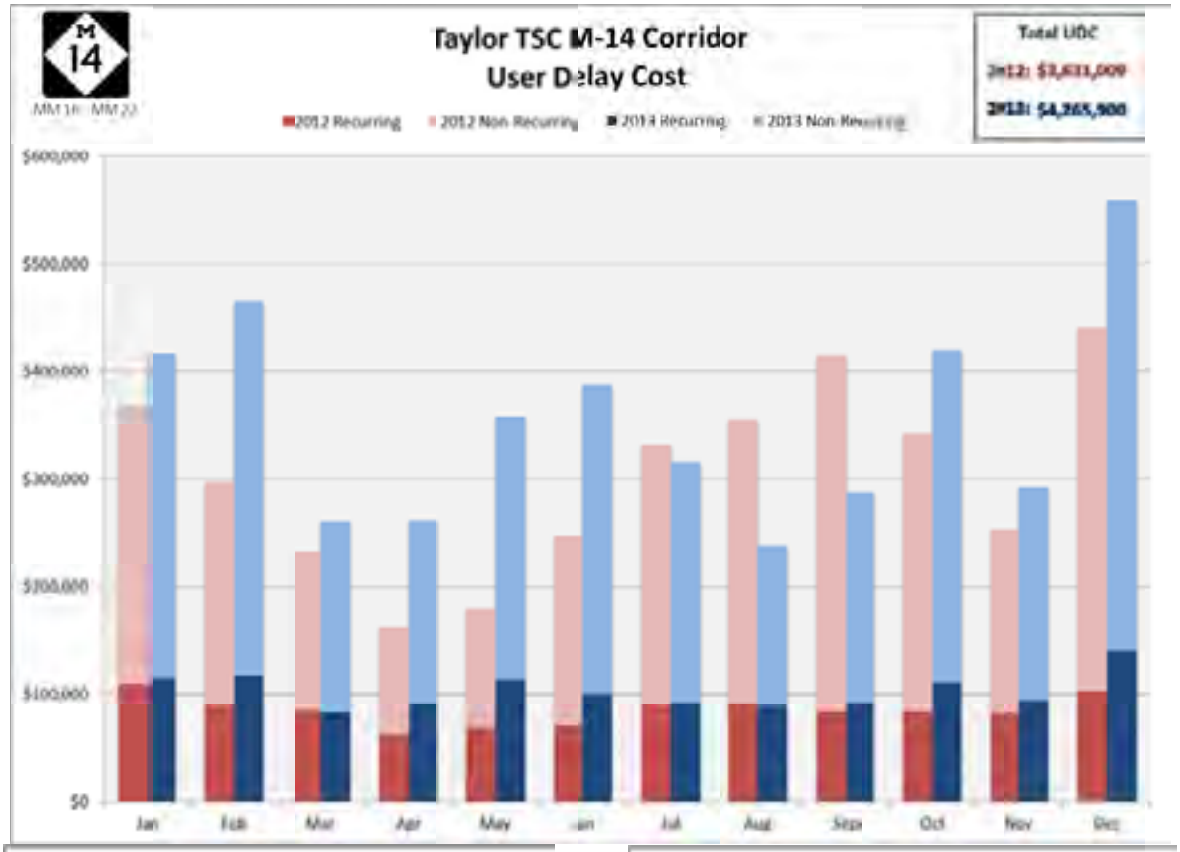
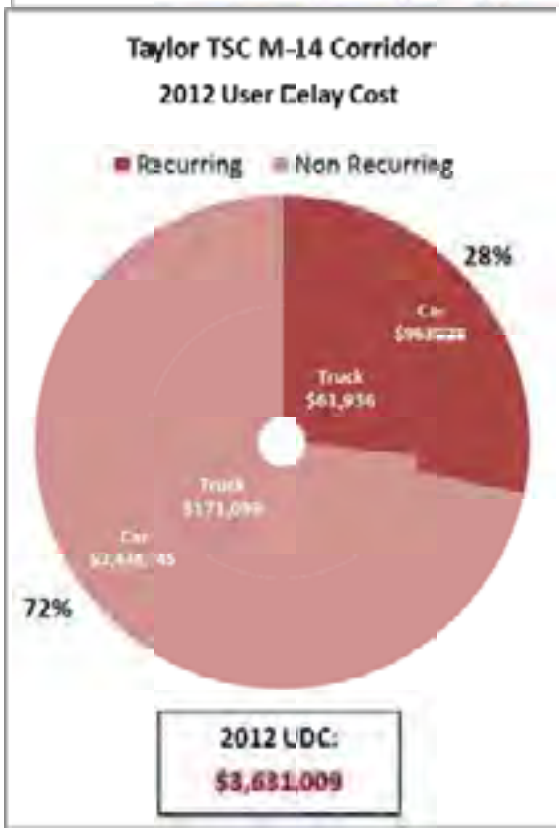

275
Taylor TSC I-275 Corridor - Southbound
2013 Congestion
Weighted Congestion Hours
Huron Rd Interchange
I-94 Interchange
US-12 Interchange
I-96/M-14 Interchange
SB

Figure 100


M 14
Taylor TSC M-14 Corridor
User Delay Cost
2012 Recurring
2012 Non Recurring
2013 Recurring
Total UDC
$600,000
$500,000
$400,000
$300,000
$200,000
$100,000
$0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec


Taylor TSC M-14 Corridor
2012 User Delay Cost
Recurring
Non Recurring
28%
Truck
$61,936
72%
2012 UDC:
$3,631,009

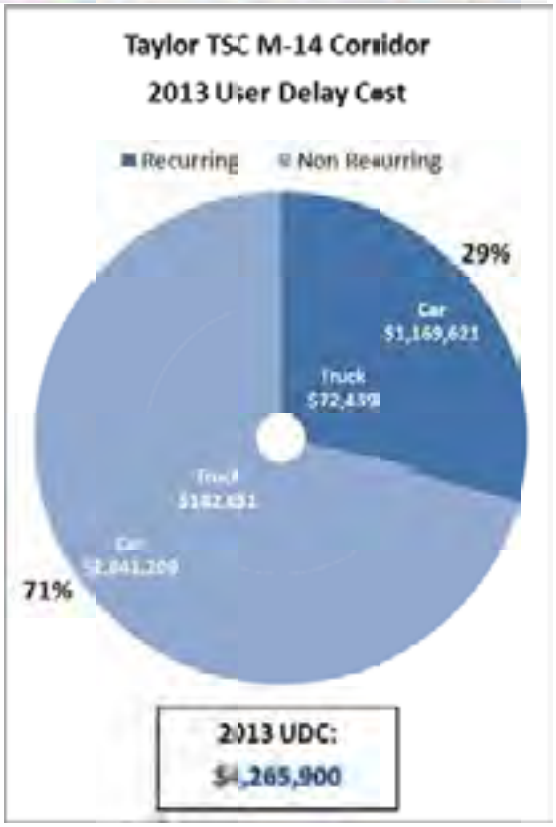
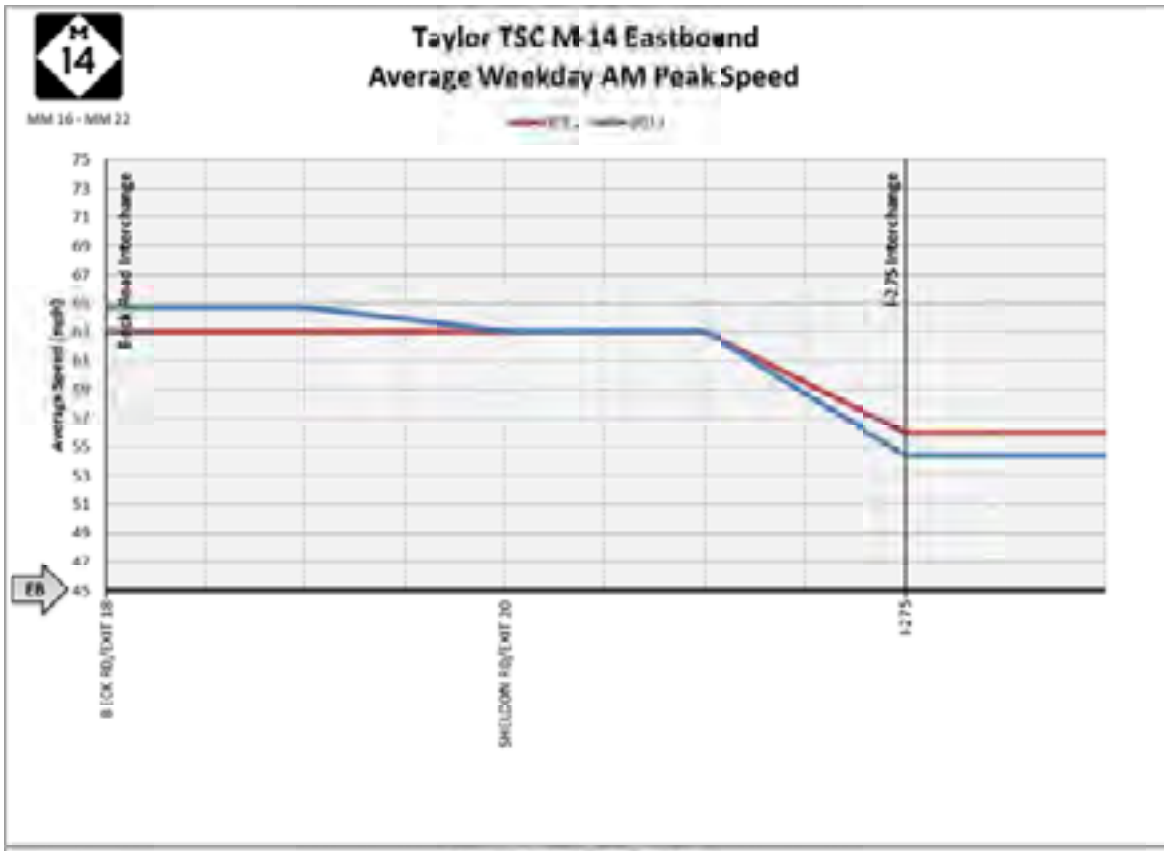

Taylor TSC M-14 Corridor
2013 User Delay Cost
Recurring
Non Recurring
29%
Car
$1,169,621
Truck
$72,459
71%
2013 UDC:

Figure 101


14
MM 16 - MM 22
Taylor TSC M-14 Eastbound
Average Weekday AM Peak Speed
Average Speed (mph)
Beck Road Interchange
I-275 Interchange
EB
I-275

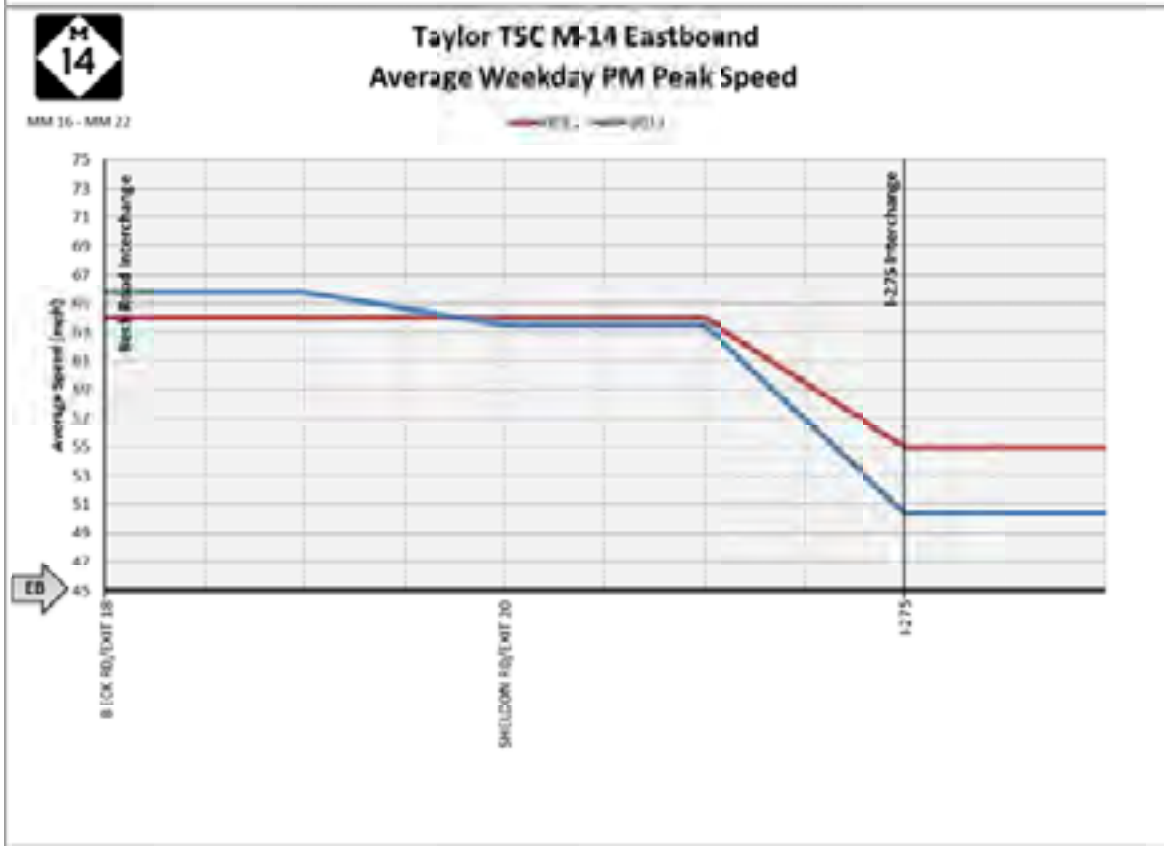
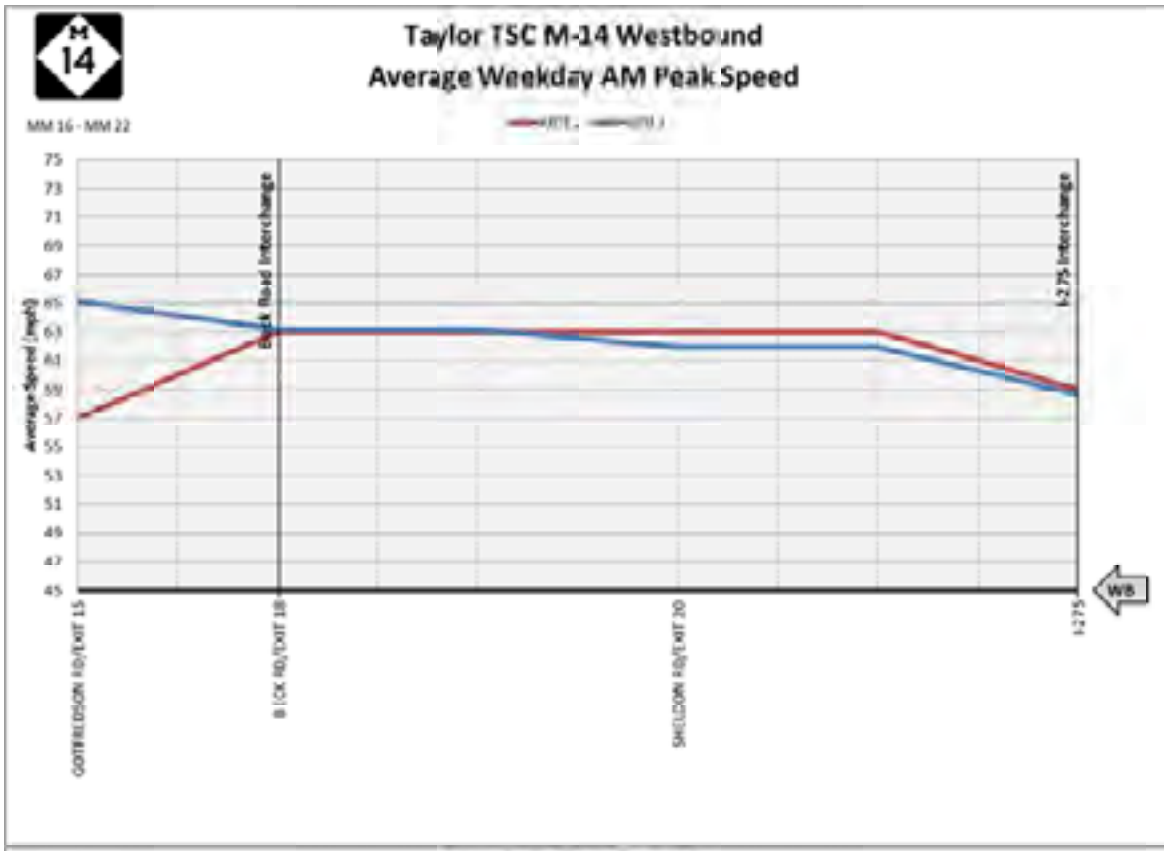

14
MM 16 - MM 22
Taylor TSC M-14 Eastbound
Average Weekday PM Peak Speed
Average Speed (mph)
Beck Road Interchange
I-275 Interchange
EB
I-275

Figure 102


M 14
Taylor TSC M-14 Westbound
Average Weekday AM Peak Speed
MM 16 - MM 22
Average Speed (mph)
75
73
71
69
67
65
63
61
59
57
55
53
51
49
47
45
Beck Road Interchange
I-275 Interchange
WB
I-275
SHELDON RD/EXIT 20
BECK RD/EXIT 18

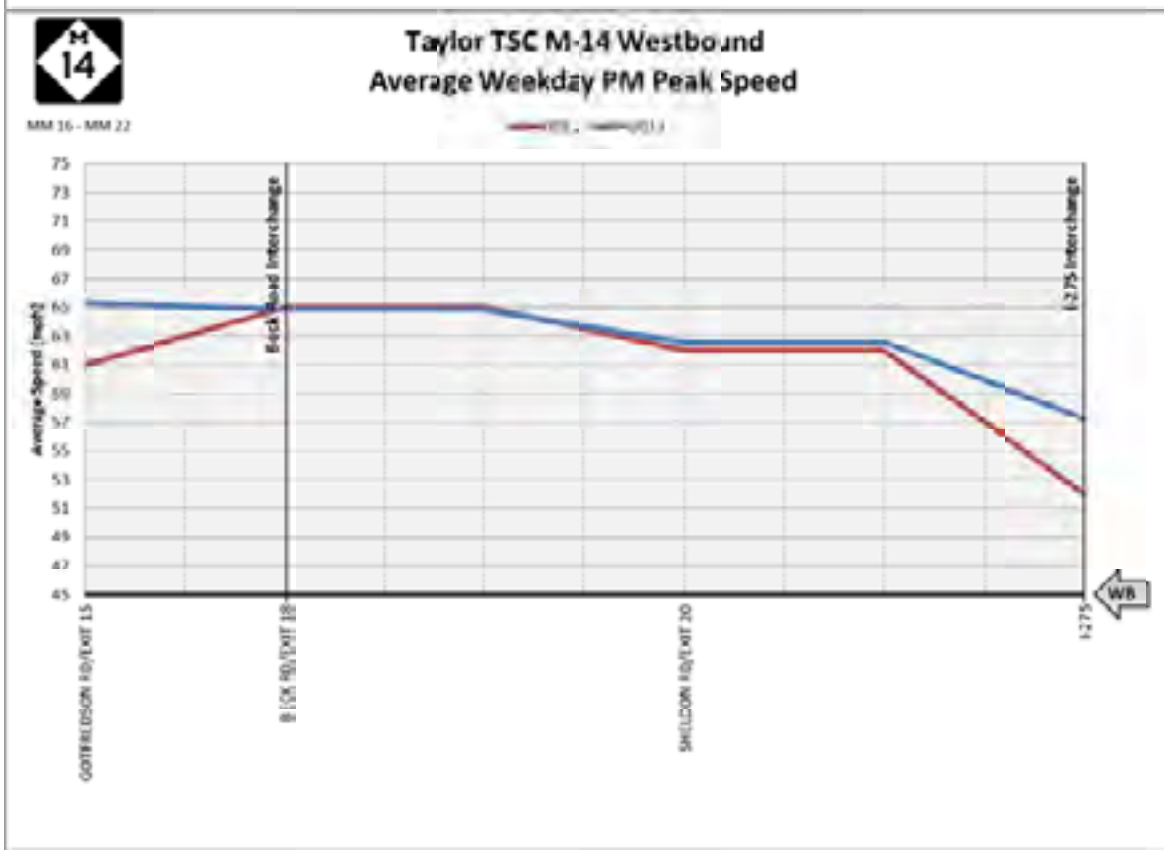
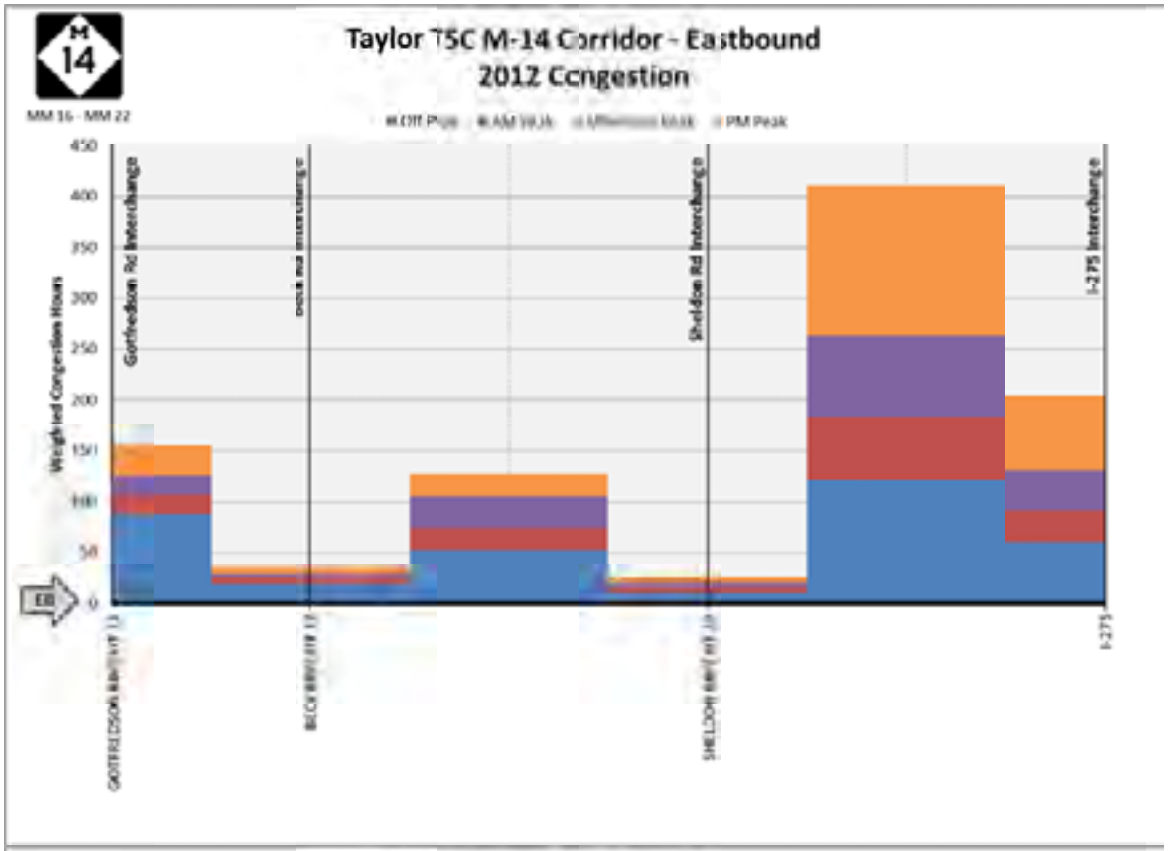

M 14
Taylor TSC M-14 Westbound
Average Weekday PM Peak Speed
MM 16 - MM 22
Average Speed (mph)
75
73
71
69
67
65
63
61
59
57
55
53
51
49
47
45
Beck Road Interchange
I-275 Interchange
WB
I-275
SHELDON RD/EXIT 20
BECK RD/EXIT 18

Figure 103


Taylor TSC M-14 Corridor - Eastbound
2012 Congestion
MM 16 - MM 22
Weighted Congestion Hours
Sheldon Rd Interchange
I-275 Interchange

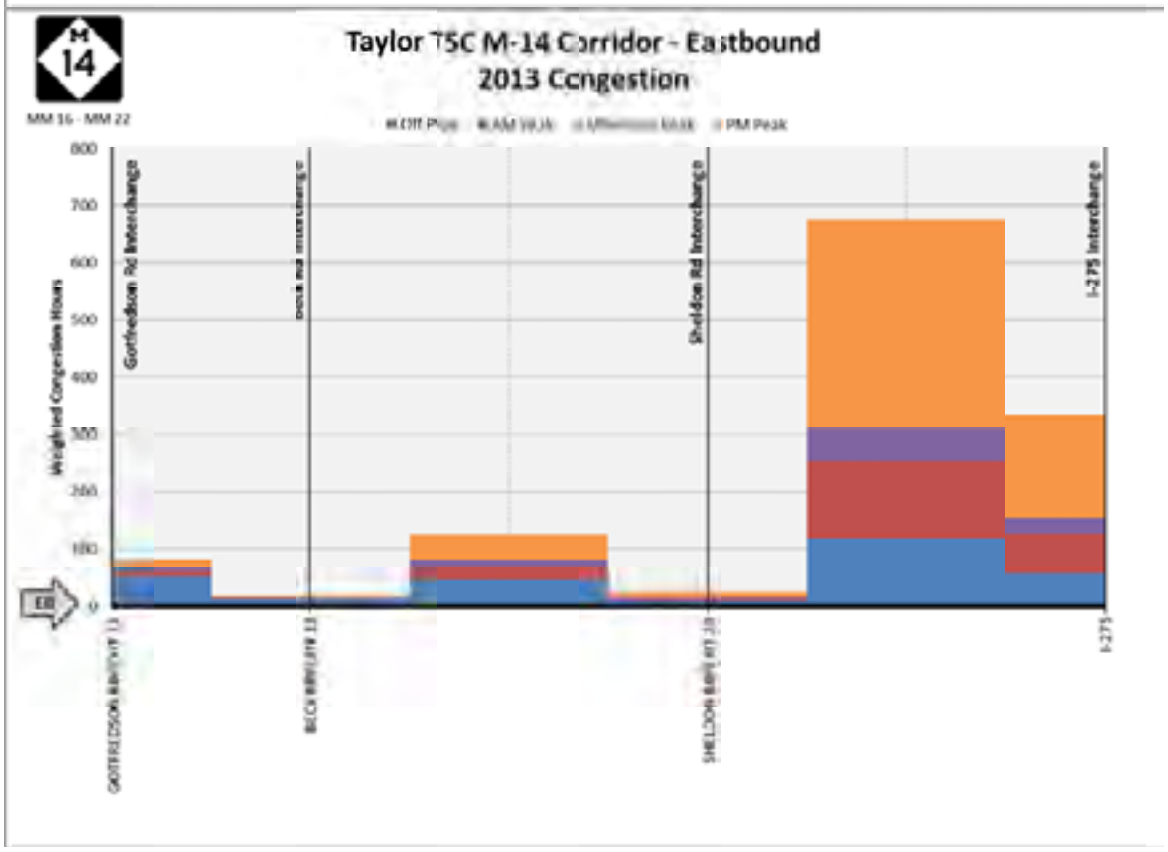
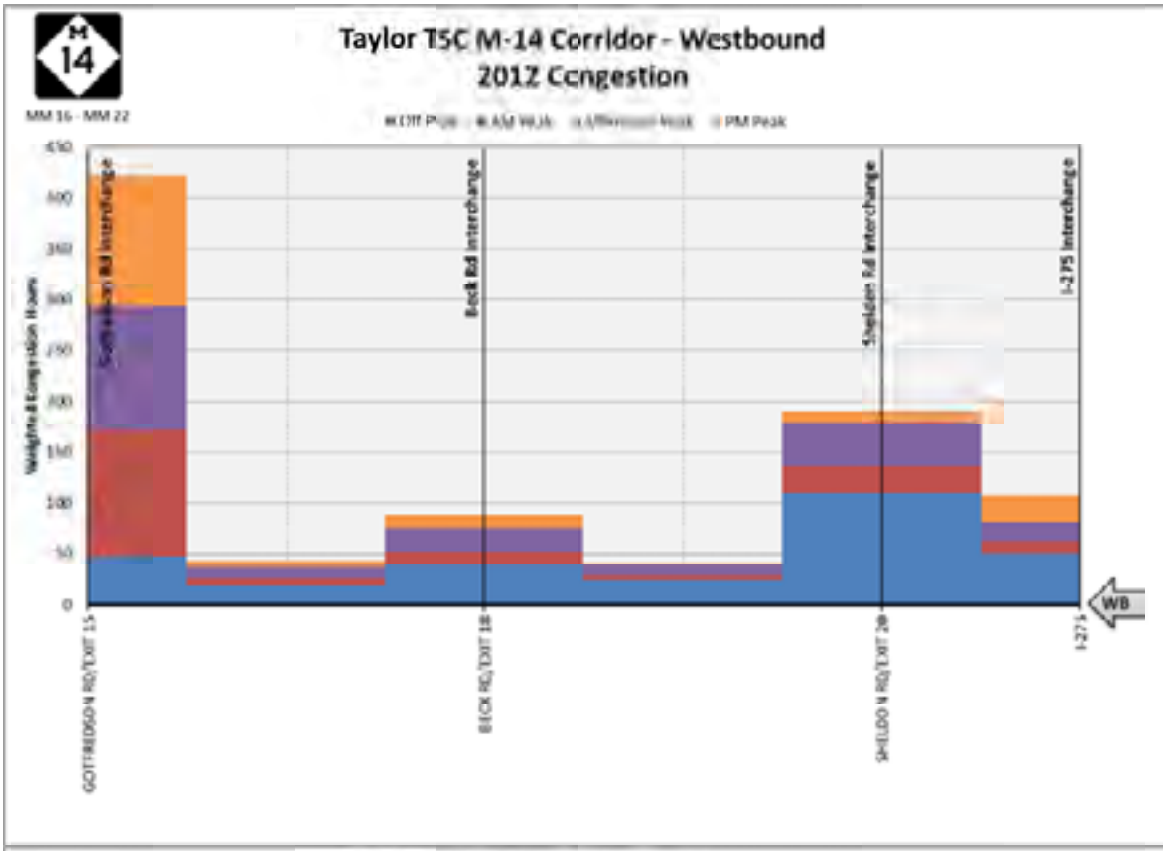
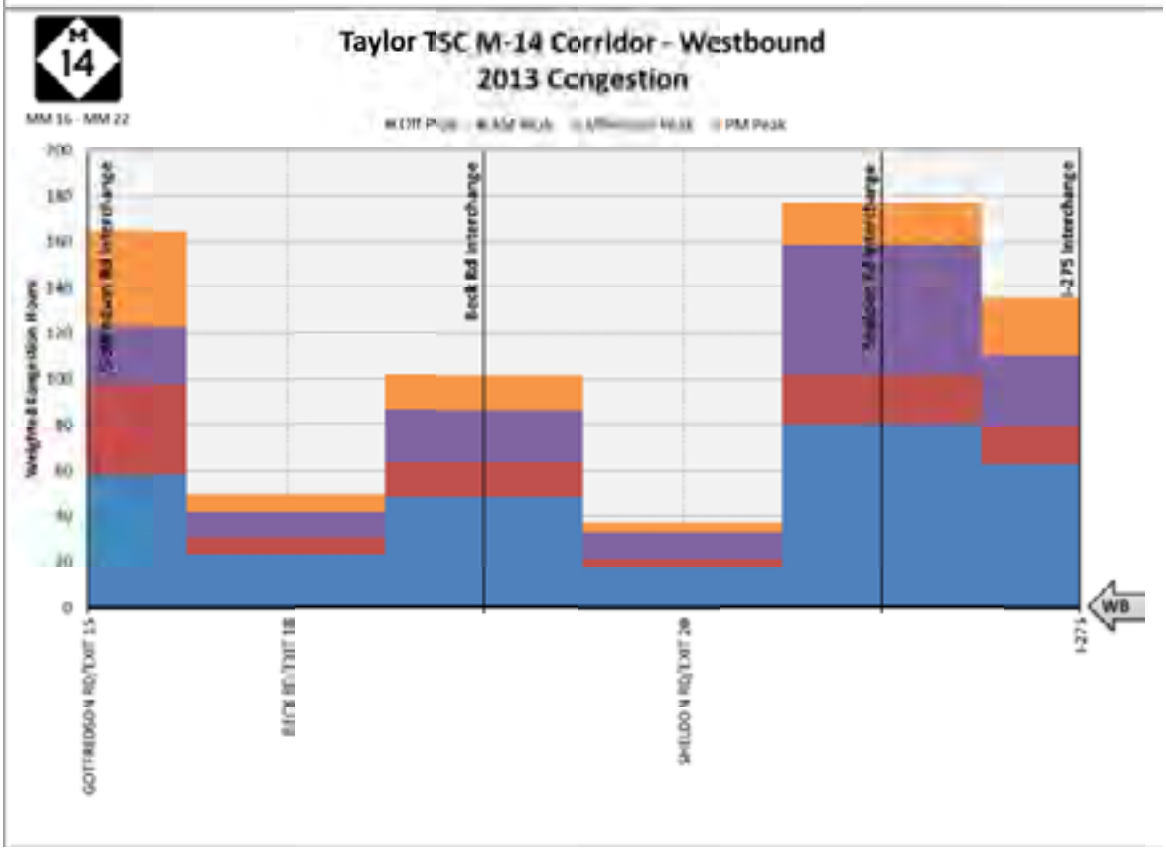

Taylor TSC M-14 Corridor - Eastbound
2013 Congestion
MM 16 - MM 22
Weighted Congestion Hours
Sheldon Rd Interchange
I-275 Interchange

Figure 104


M 14
MM 16 - MM 22
Taylor TSC M-14 Corridor - Westbound
2012 Congestion
Beck Rd interchange
Sheldon Rd interchange
I-275 interchange
WB


M 14
MM 16 - MM 22
Taylor TSC M-14 Corridor - Westbound
2013 Congestion
Beck Rd interchange
I-275 interchange
WB

MDOT
Michigan Department of Transportation

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