



I-85 Collapse, Atlanta, Georgia

Illinois T.H.E. Conference

University of Illinois
at
Urbana-Champaign



Big Take Aways

It's all about:

- Relationships
- Communications
- Communications
- Communications



Changing Behavior

Changed Routes

- SR 400
- I-85
- I-285 taking the brunt of the closure

Private Sector

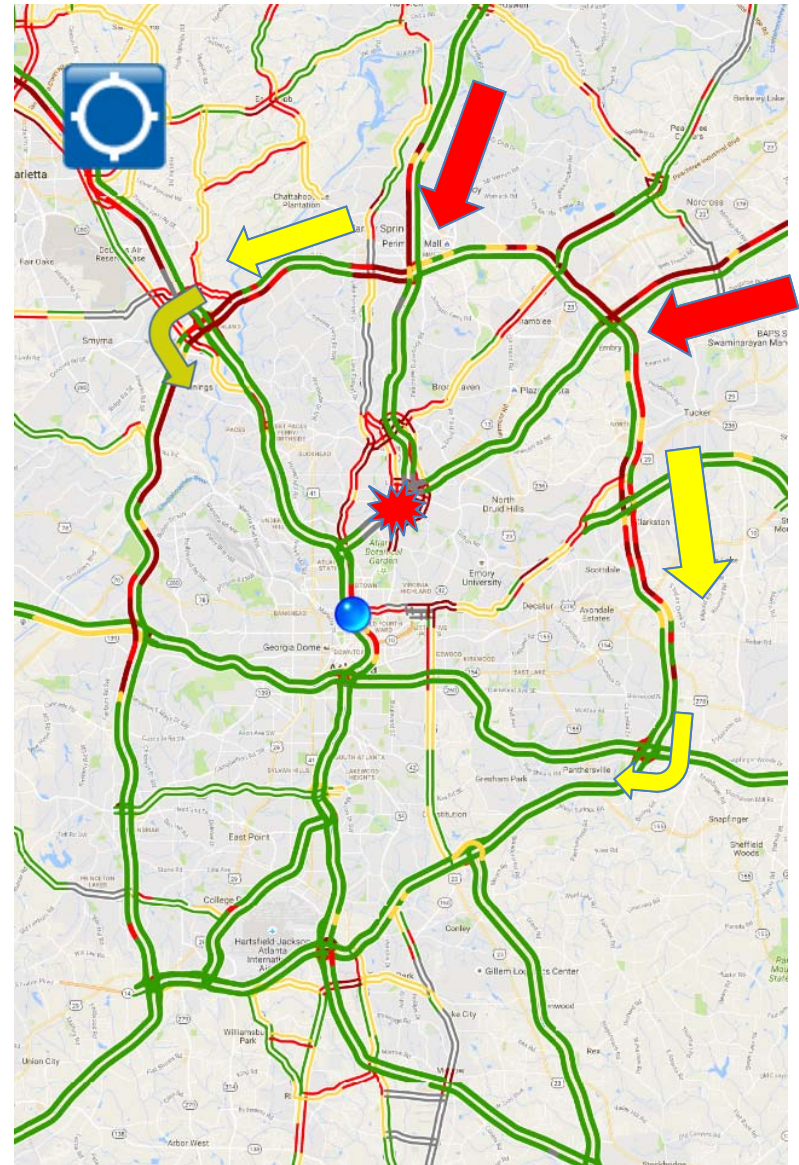
- Immediate Response
- Post-Spring Break Response
- Business leaders on YouTube

Public Sector

- Governor's Letter

MARTA

- Longer trains, more frequent service





The Contract(s) & Incentives

- Two separate contracts:
 - Demolition: \$1.6M
 - Construction: \$11.9M



Reconstruction Schedule

GDOT initially announced a June 15th re-opening date.

However, incentives were added with FHWA approval:



The bridge re-opened Friday evening May 12, approx. 5 weeks earlier than original schedule



Piedmont Rd.

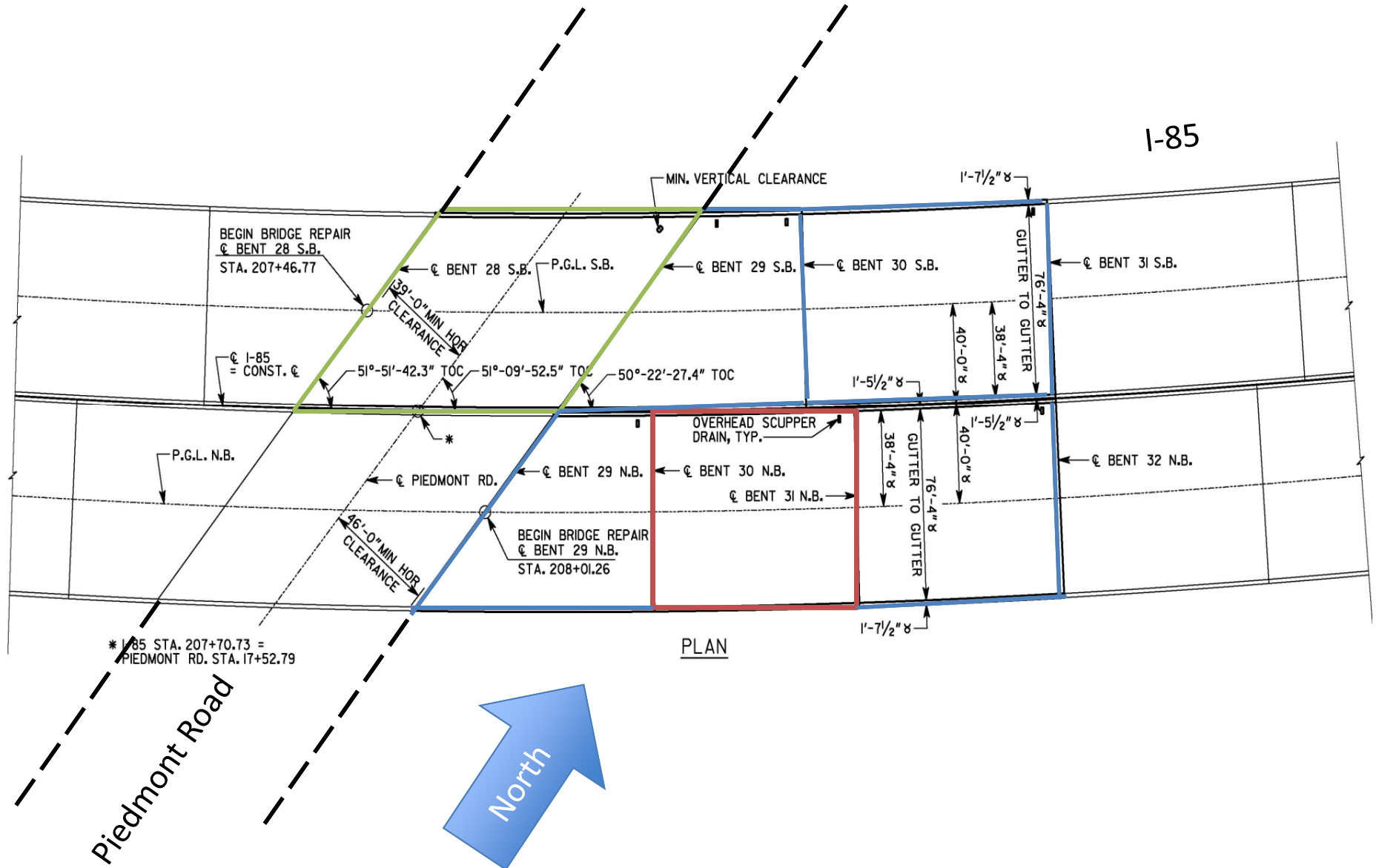
"New" I-85

"Old" I-85 aka "The Buford Spring Connector"

North



What Was Rebuilt





TMC's role

Initially

- Keeping cameras trained on fire. Passing info to management.
- Using DMS to route traffic away from fire area
- Dispatching HERO's to areas needing road and ramp closures
- Publishing info on social media, website and 511

Long Term

- Keeping motorists informed via DMS, social media and 511
- Reporting traffic shift data daily
- Participating in operational improvement discussions.



Detour Maps published

I-85 DETOURS

Atlanta Travel Advisory: I-85 is closed between I-75 and SR 400. Motorists are advised to use I-75, I-285 and I-20 until further notice.



UPDATED 4-1-2017

ATLANTA



Traveler Information Impact (511 phone)

	Calls	Live Oper Transfer	Transit info	Peak Day calls	Peak calls in 1 hour	Duration of all calls, hrs
Jan	67214	8126	124	6632	831	1580:39:23
Feb	48195	6157	125	4720	643	1058:14:56
Mar	81880	9762	208	11693	1319	2057:03:22
Apr	86377	12011	216	7222	977	2332:10:28



Traveler Information Impact (website/apps)

Total 511 App Downloads

Prior to Collapse:

- Android: 80,800
- iPhone: 171,300

After Collapse:*

- Android: 83,300
- iPhone: 175,600

*6800 new downloads

Website Usage

Week prior to collapse:

- 28,000 visitors

1st week after collapse:

- 83,000

2nd week after collapse:

- 79,500

3rd week after collapse:

- 56,000

4th week after collapse:

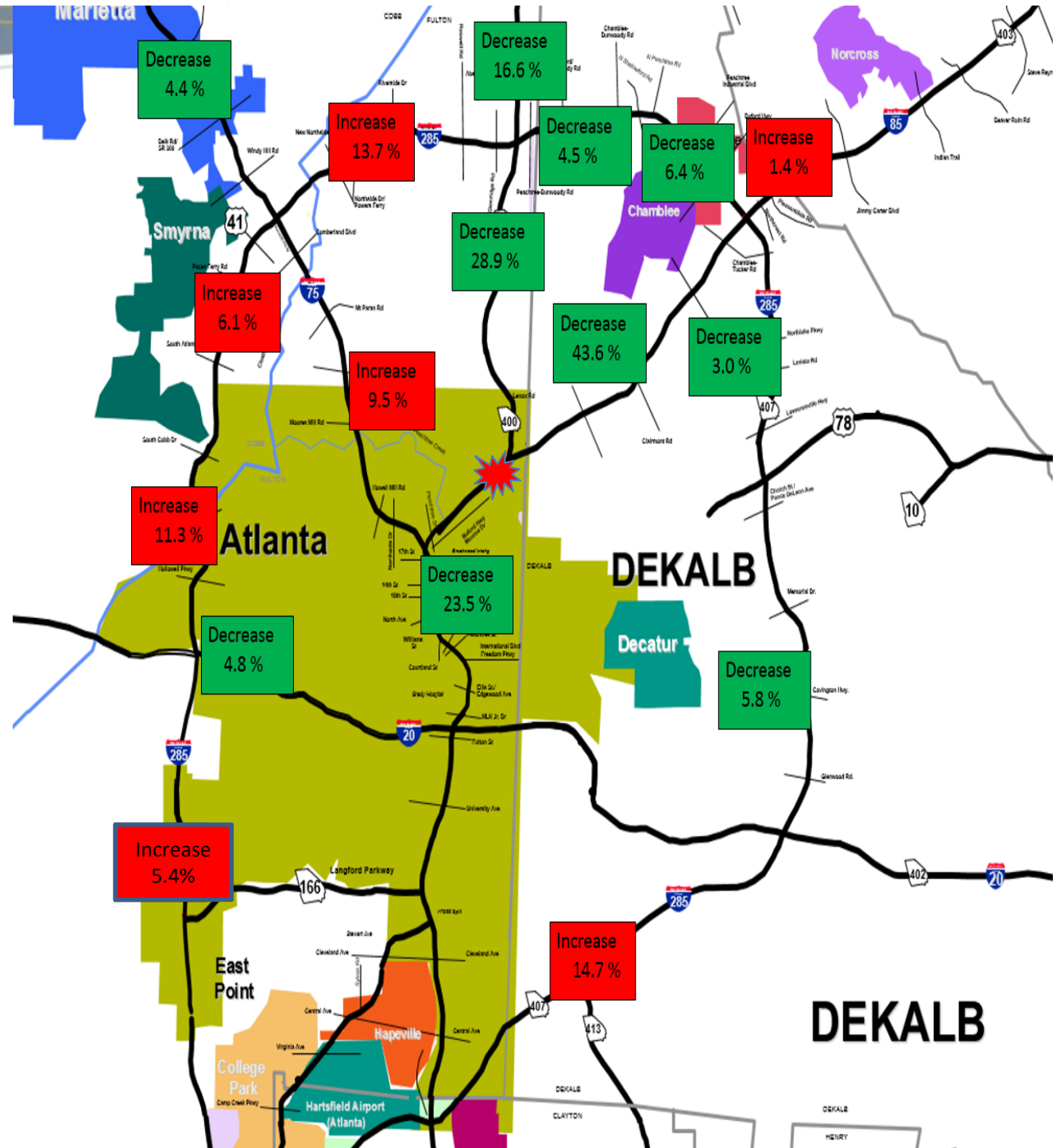
- 52,100

5th week after collapse:

- 39,600

Traffic Changes due to Collapse

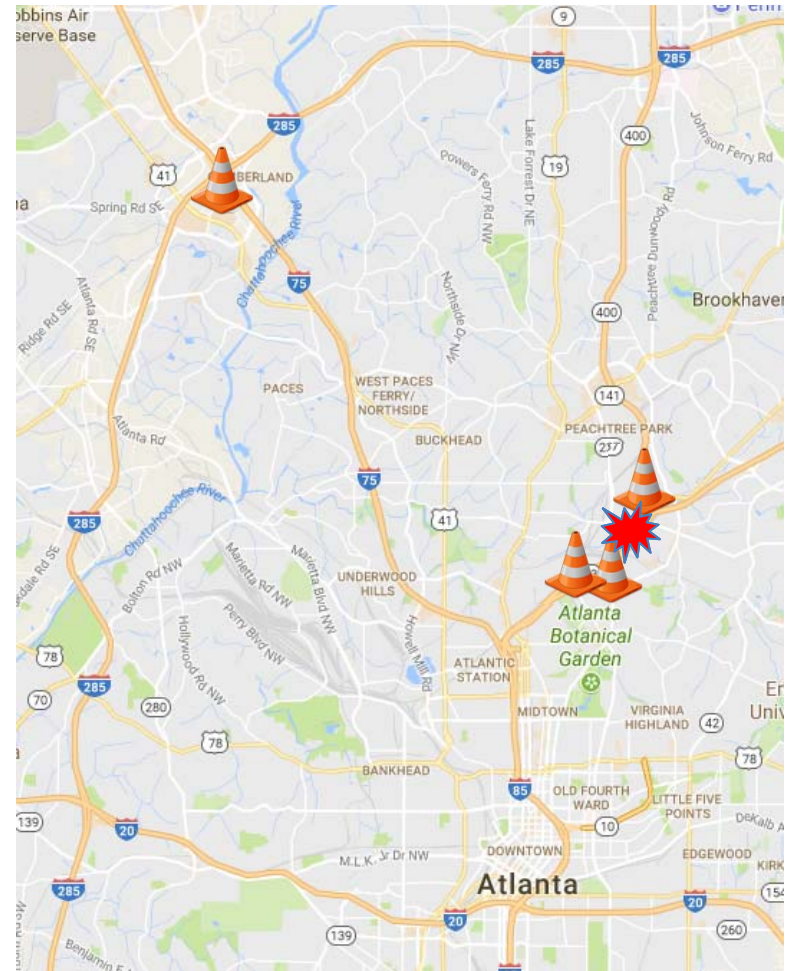
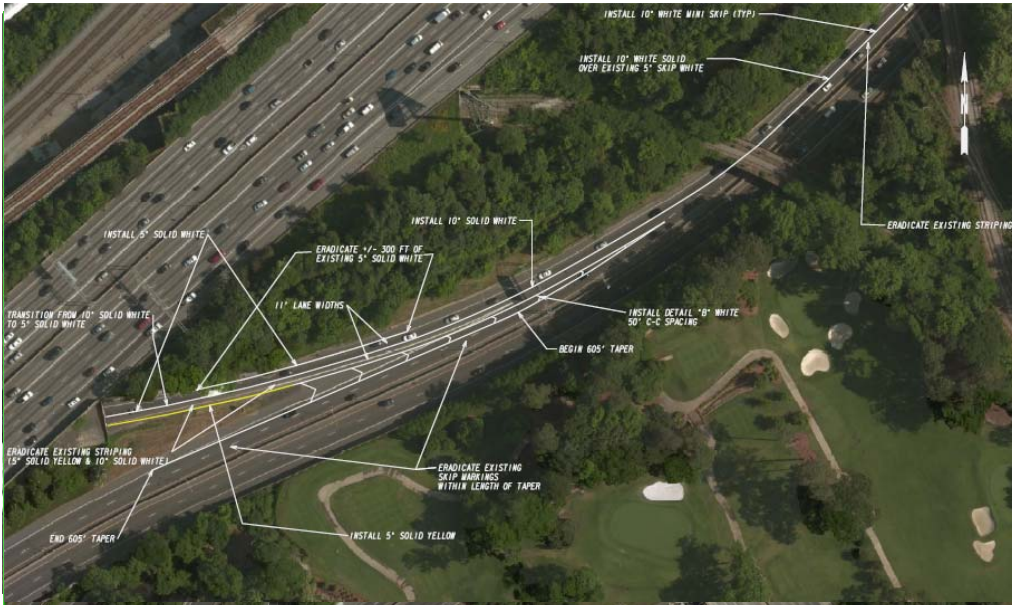
Overall: a 7% reduction in traffic in the region during the closure





Quick Response Projects

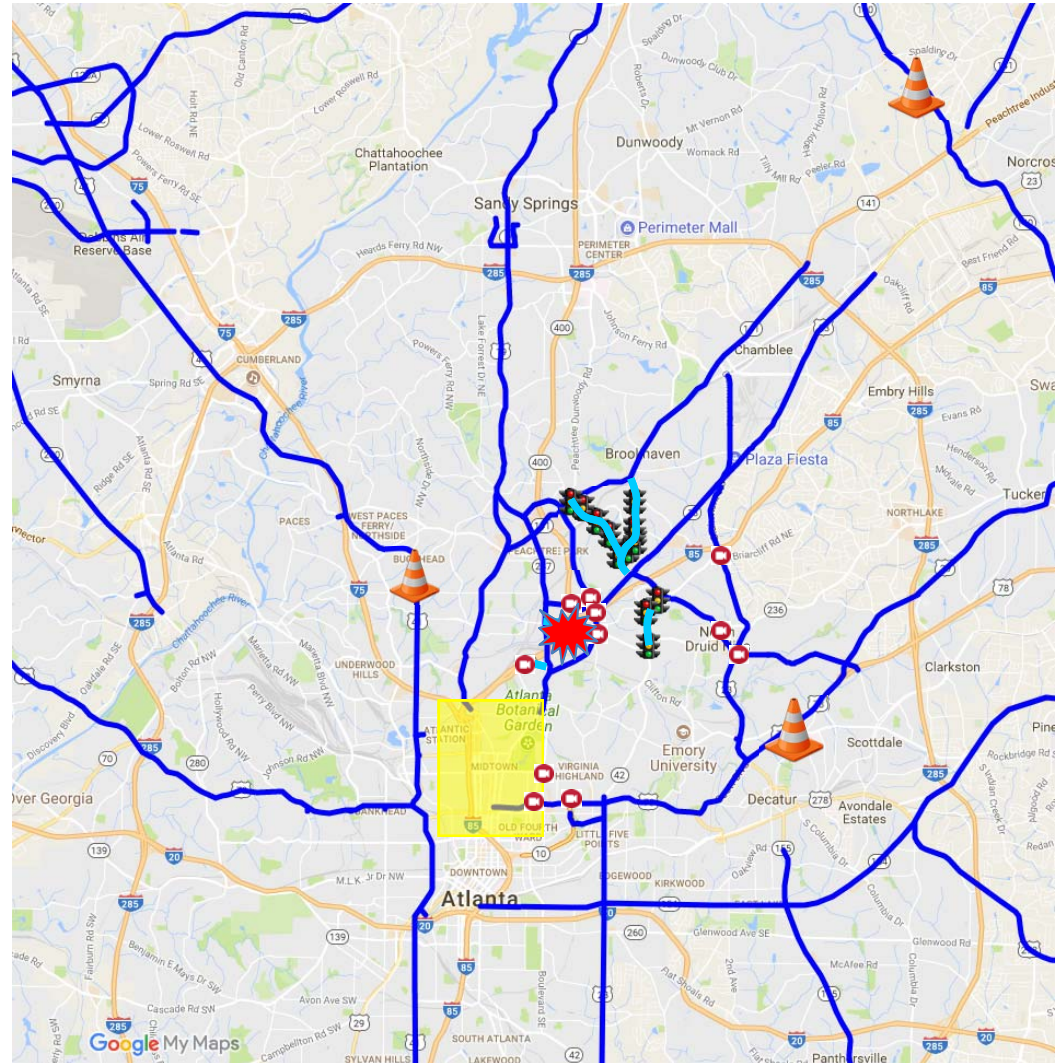
Bluebonnet Road Restriping





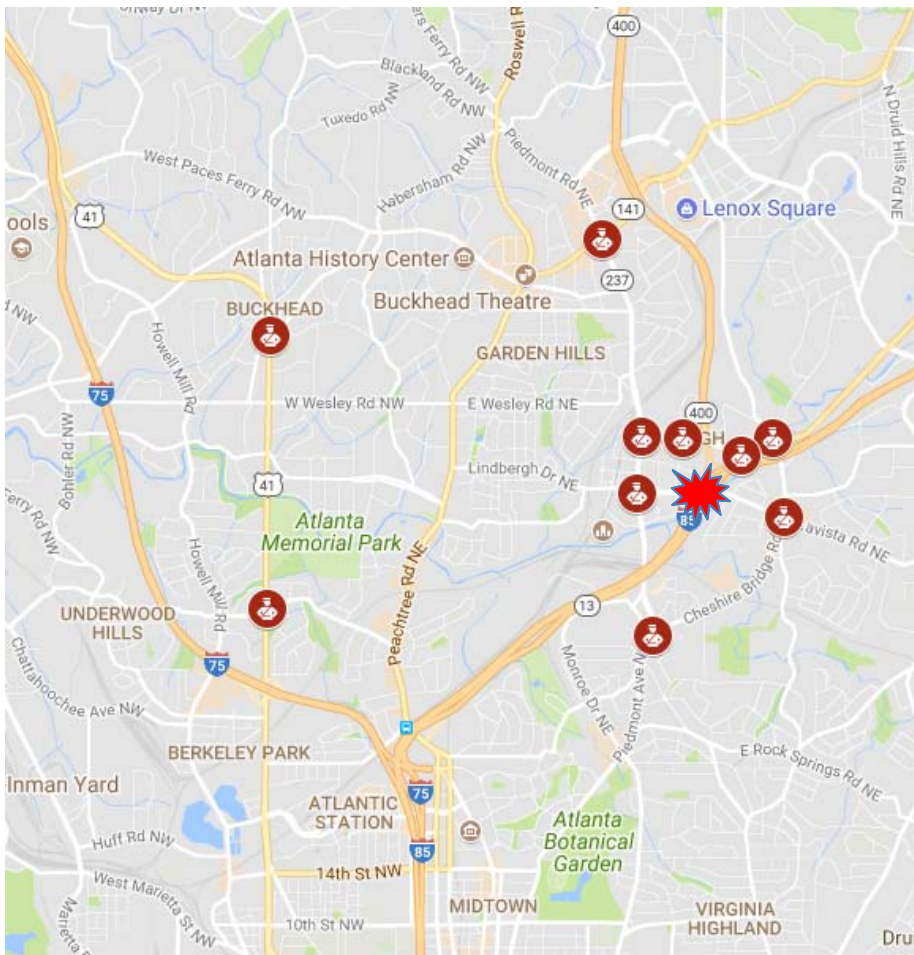
Quick Response Projects

- Traffic Signal Upgrades
- RTOP Expansion
- CCTVs
- MTOP/DTOP
- 3rd Party Construction





Support from Atlanta

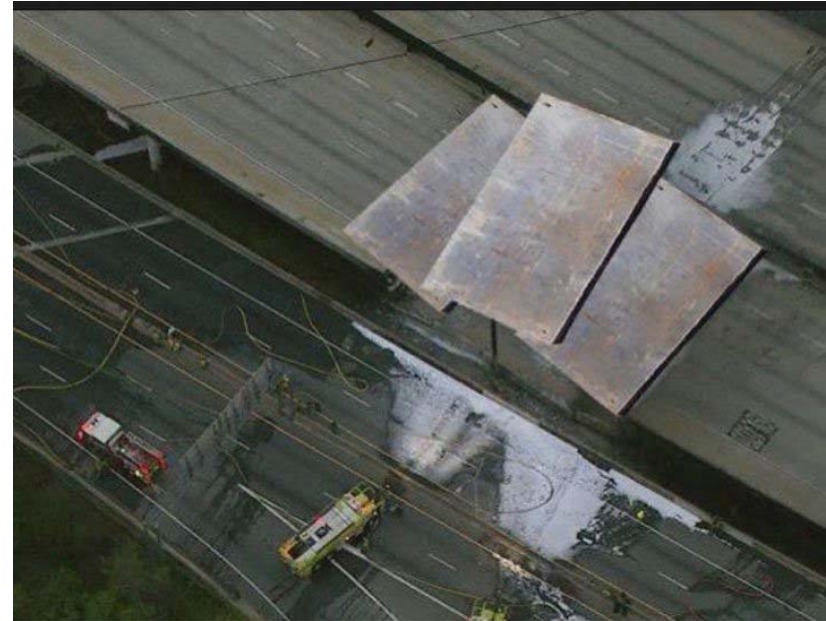


- APD Traffic Enforcement
- Renew Atlanta Signal



Unimplemented ideas

- Arterial Interstates
- Cheshire Bridge
Contraflow



- Triple left at West Peachtree & 17th Street
- 400 @ 285 Pinch



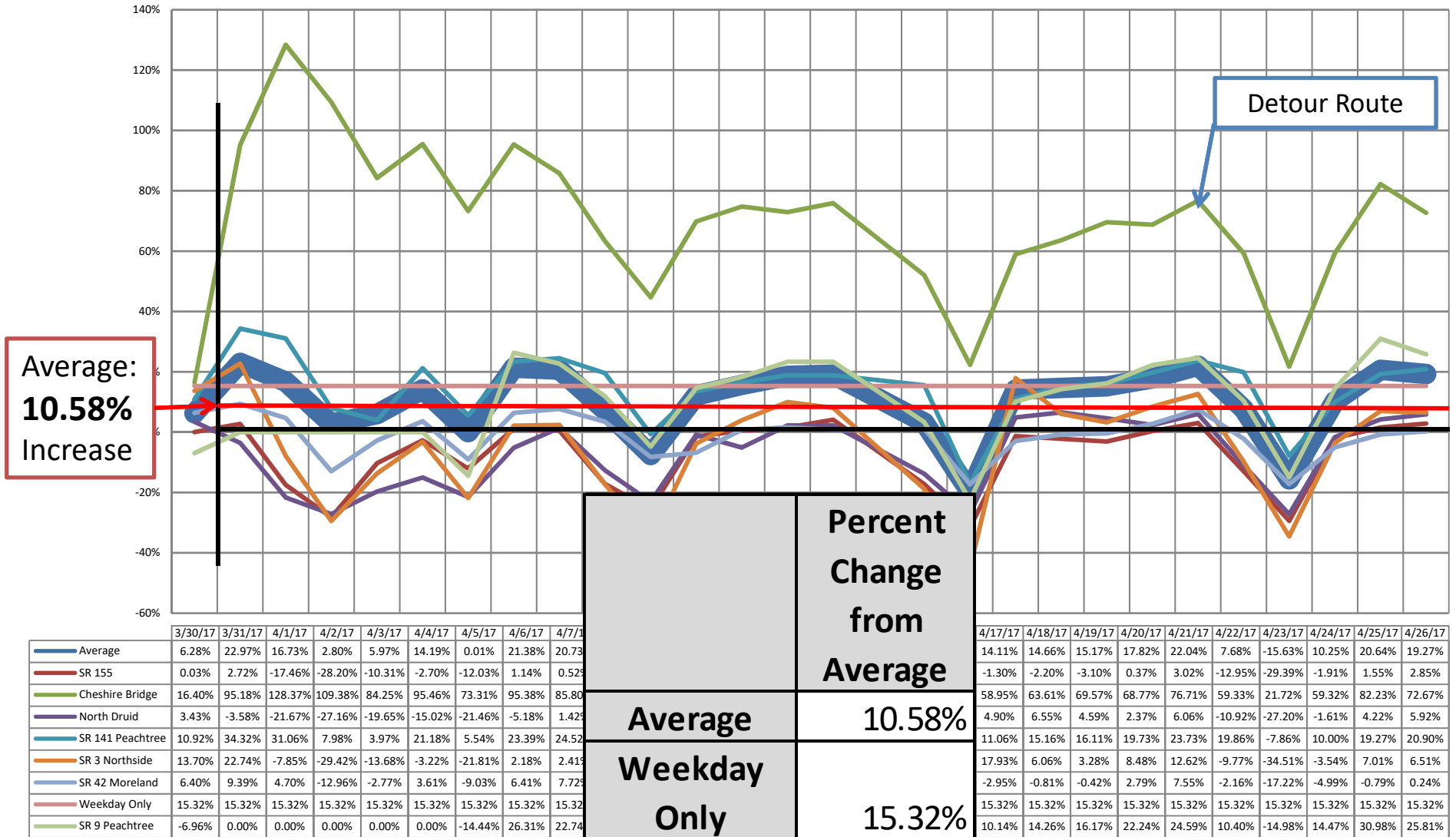
ATSPM In Practice





Arterial Volumes

Key Arterial Volume Changes - Post Collapse





Arterial Volumes

Route #	Description	4/5 Wednesday				4/12 Wednesday				4/19 Wednesday				4/26 Wednesday			
		AM		PM		AM		PM		AM		PM		AM		PM	
		% Diff	Diff (mins)	% Diff	Diff (mins)	% Diff	Diff (mins)	% Diff	Diff (mins)	% Diff	Diff (mins)	% Diff	Diff (mins)	% Diff	Diff (mins)	% Diff	Diff (mins)
92863	Cheshire Bridge Detour NB	-11.8%	-1.7	-4.6%	-0.7	2.1%	0.3	16.1%	2.7	8.9%	1.4	16.0%	2.7	18.0%	3.0	13.9%	2.3
92864	Cheshire Bridge Detour SB	6.4%	1.0	-17.2%	-3.4	31.1%	5.4	44.5%	12.2	32.1%	5.6	31.5%	8.0	25.7%	4.3	29.5%	7.4
92835	SR 12 Covington Hwy NB	24.1%	0.9	4.7%	0.2	58.0%	2.5	11.8%	0.4	60.6%	2.7	18.0%	0.7	40.5%	1.6	12.8%	0.5

Travel Times Compared to Normal

4/5 Wednesday

AM		PM	
Percentage	Minutes	Percentage	Minutes
14.30%	2	-14.20%	-2.2

4/12 Wednesday

AM		PM	
Percentage	Minutes	Percentage	Minutes
18.40%	2.8	41.30%	8.3

4/19 Wednesday

AM		PM	
Percentage	Minutes	Percentage	Minutes
25.50%	3.8	33.80%	6.7

4/26 Wednesday

AM		PM	
Percentage	Minutes	Percentage	Minutes
29.20%	4.6	41.80%	8.9

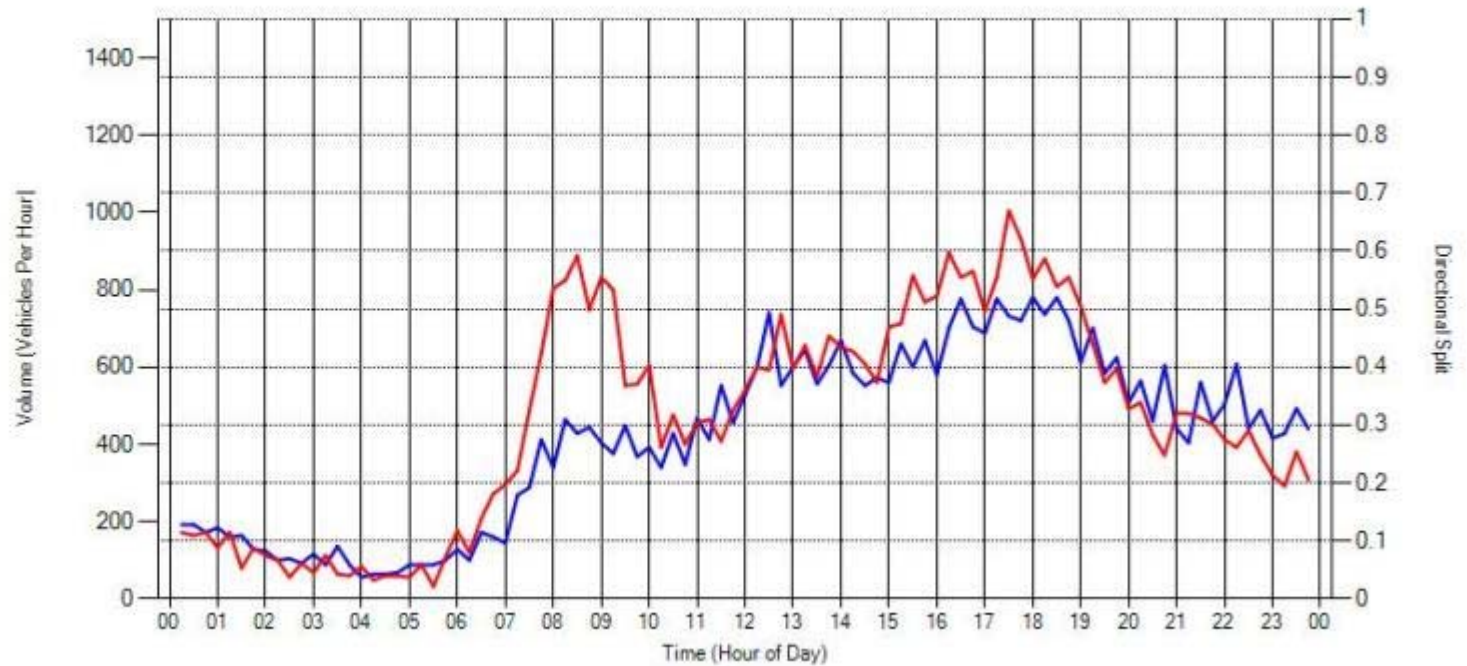
92821	SR 9 Peachtree Rd NB	17.8%	2.0	-7.8%	-0.8	21.7%	2.5	48.3%	6.4	37.5%	4.7	31.8%	3.8	33.2%	4.0	48.0%	6.3
92822	SR 9 Peachtree Rd SB	47.9%	7.2	-24.2%	-2.7	11.4%	1.4	57.3%	10.0	41.1%	5.9	41.9%	6.6	61.8%	10.3	94.5%	22.4
92823	SR 9 Roswell NB	20.3%	2.5	-13.2%	-1.9	10.0%	1.2	24.3%	4.4	13.8%	1.6	39.9%	7.8	-13.3%	-1.4	-8.9%	-1.3
92825	SR 9 Roswell SB	3.8%	0.5	39.8%	6.5	16.0%	2.1	38.5%	6.2	-7.5%	-0.9	49.2%	8.5	-5.6%	-0.7	37.7%	6.0
92818	US 278 Donald Lee Hollowell Pkwy EB	-29.0%	-3.2	0.3%	0.0	12.1%	1.6	2.6%	0.3	15.9%	2.2	1.4%	0.1	22.9%	3.3	7.5%	0.8
92816	US 278 Donald Lee Hollowell Pkwy WB	-5.1%	-0.5	-25.2%	-3.0	1.1%	0.1	6.5%	0.9	3.0%	0.3	3.1%	0.4	2.2%	0.2	-5.1%	-0.7



Cheshire Bridge (Detour)

Volume report for Cheshire Bridge Road @ Wellbourne Drive on the Northbound and Southbound approaches.
3/24/2017 12:00:00 AM - 3/24/2017 11:59:00 PM - Using Advanced Detection

- Northbound
- Southbound
- - - Northbound D-Factor
- - - Southbound D-Factor



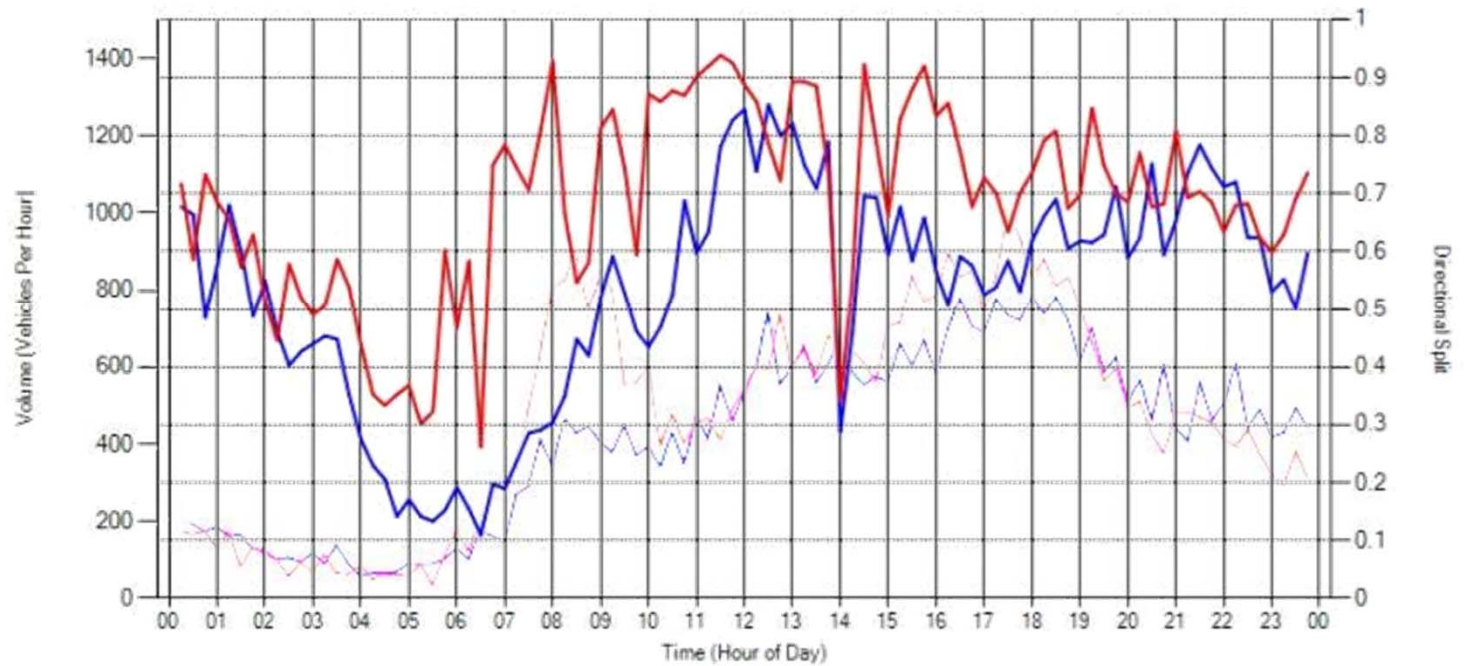
Normal ADT: 20,998



Cheshire Bridge (Detour)

Volume report for Cheshire Bridge Road @ Wellbourne Drive on the Northbound and Southbound approaches.
4/1/2017 12:00:00 AM - 4/1/2017 11:59:00 PM - Using Advanced Detection

- Northbound
- Southbound
- - - Northbound D-Factor
- - - Southbound D-Factor



Normal ADT: 20,998

Closure ADT: 43,324

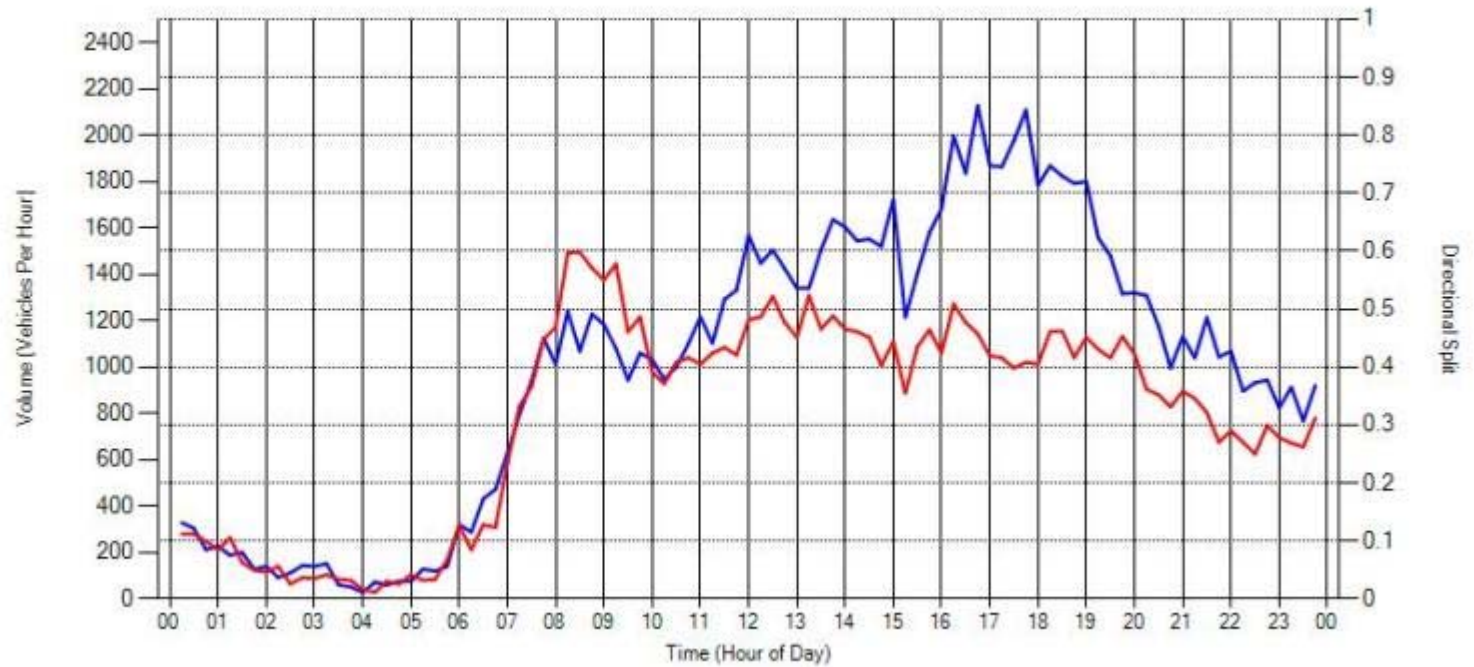
106.3% Volume Increase



SR 141 Peachtree (Buckhead)

Volume report for SR 141 Peachtree @ Mathieson Drive on the Westbound and Eastbound approaches.
3/24/2017 12:00:00 AM - 3/24/2017 11:59:00 PM - Using Advanced Detection

- Westbound
- Eastbound
- - - Westbound D-Factor
- - - Eastbound D-Factor



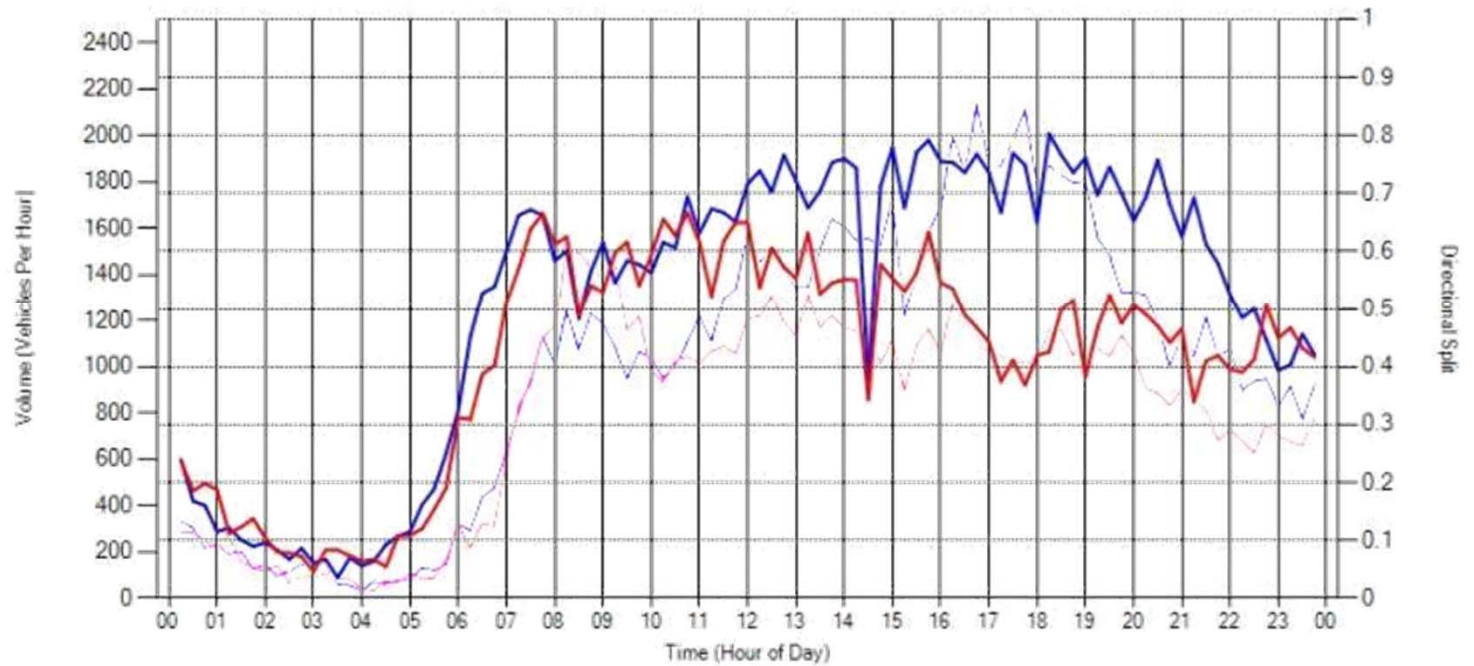
Normal ADT: 42,564



SR 141 Peachtree (Buckhead)

Volume report for SR 141 Peachtree @ Mathieson Drive on the Westbound and Eastbound approaches.
3/31/2017 12:00:00 AM - 3/31/2017 11:59:00 PM - Using Advanced Detection

- Westbound
- Eastbound
- - - Westbound D-Factor
- - - Eastbound D-Factor



Normal ADT: 42,564

Closure ADT: 55,041

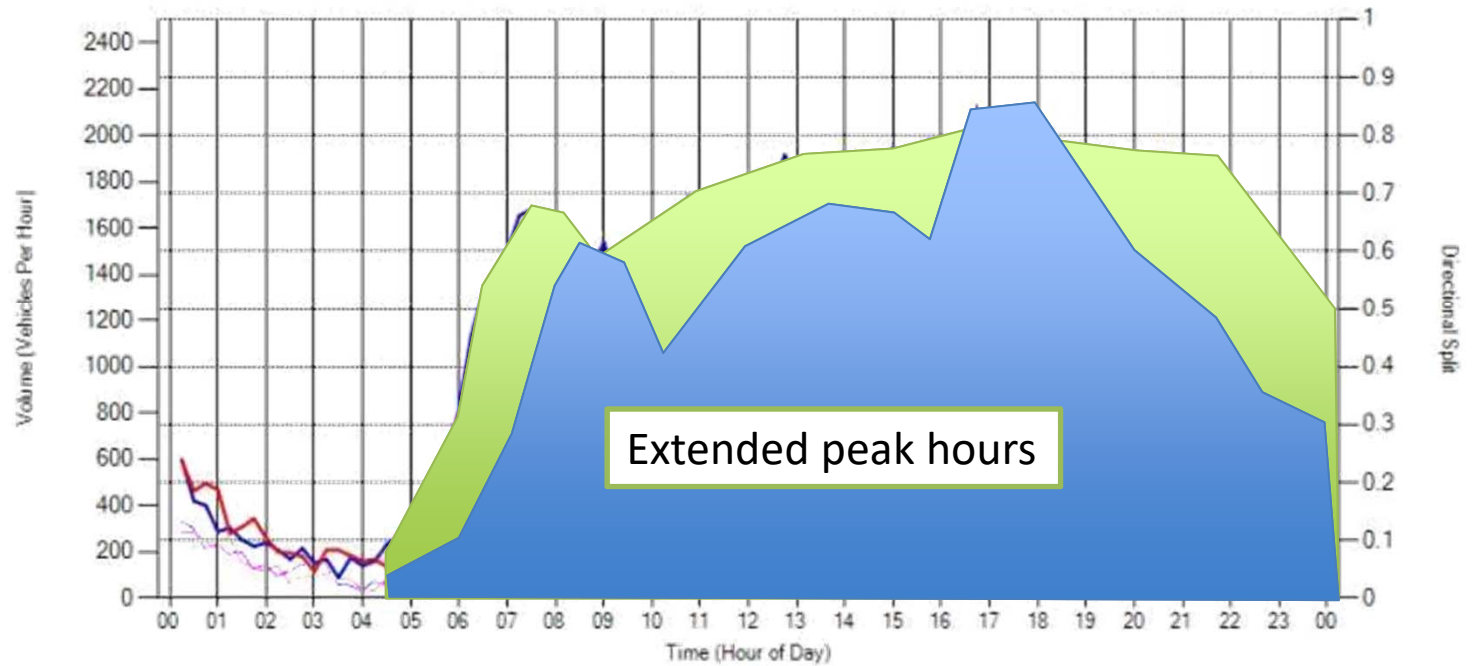
29.3% Volume Increase



SR 141 Peachtree (Buckhead)

Volume report for SR 141 Peachtree @ Mathieson Drive on the Westbound and Eastbound approaches.
3/31/2017 12:00:00 AM - 3/31/2017 11:59:00 PM - Using Advanced Detection

- Westbound
- Eastbound
- - - Westbound D-Factor
- - - Eastbound D-Factor



Normal ADT: 42,564

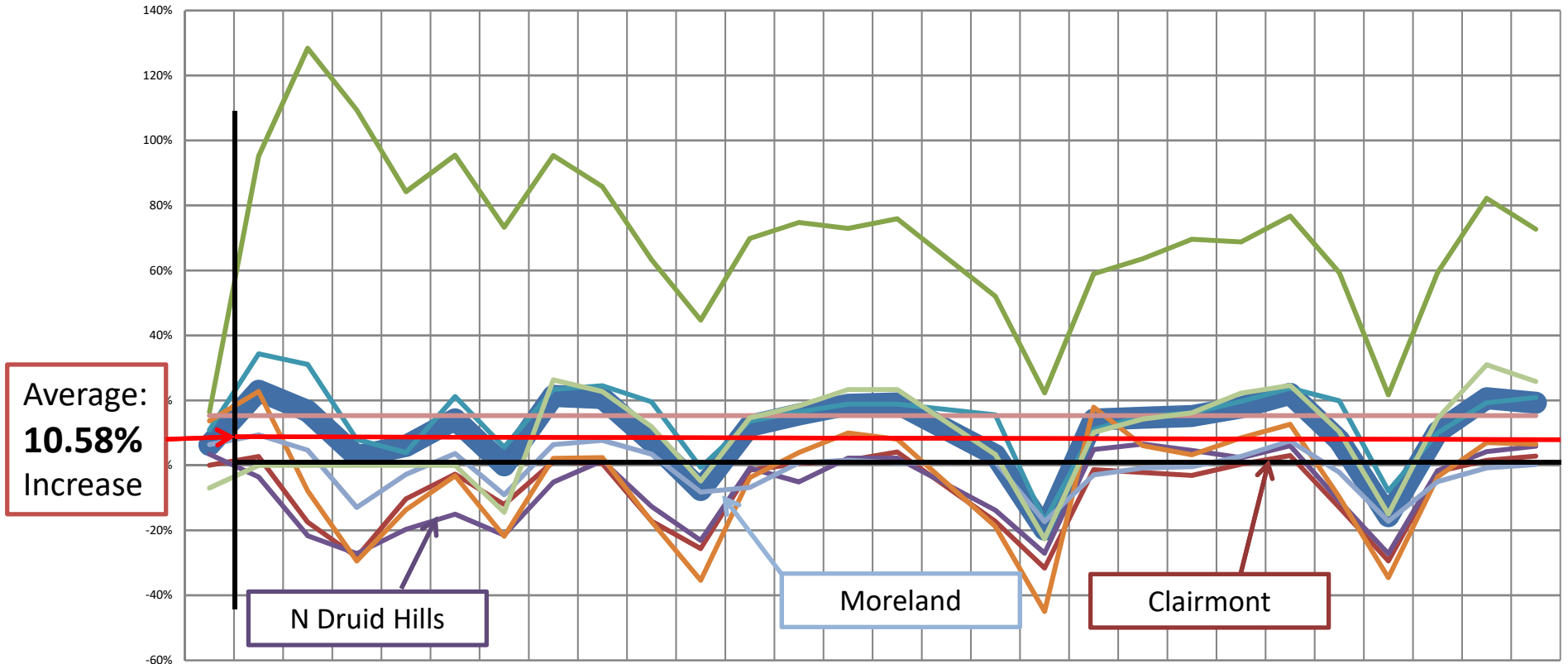
Closure ADT: 55,041

29.3% Volume Increase



Arterial Volumes

Key Arterial Volume Changes - Post Collapse

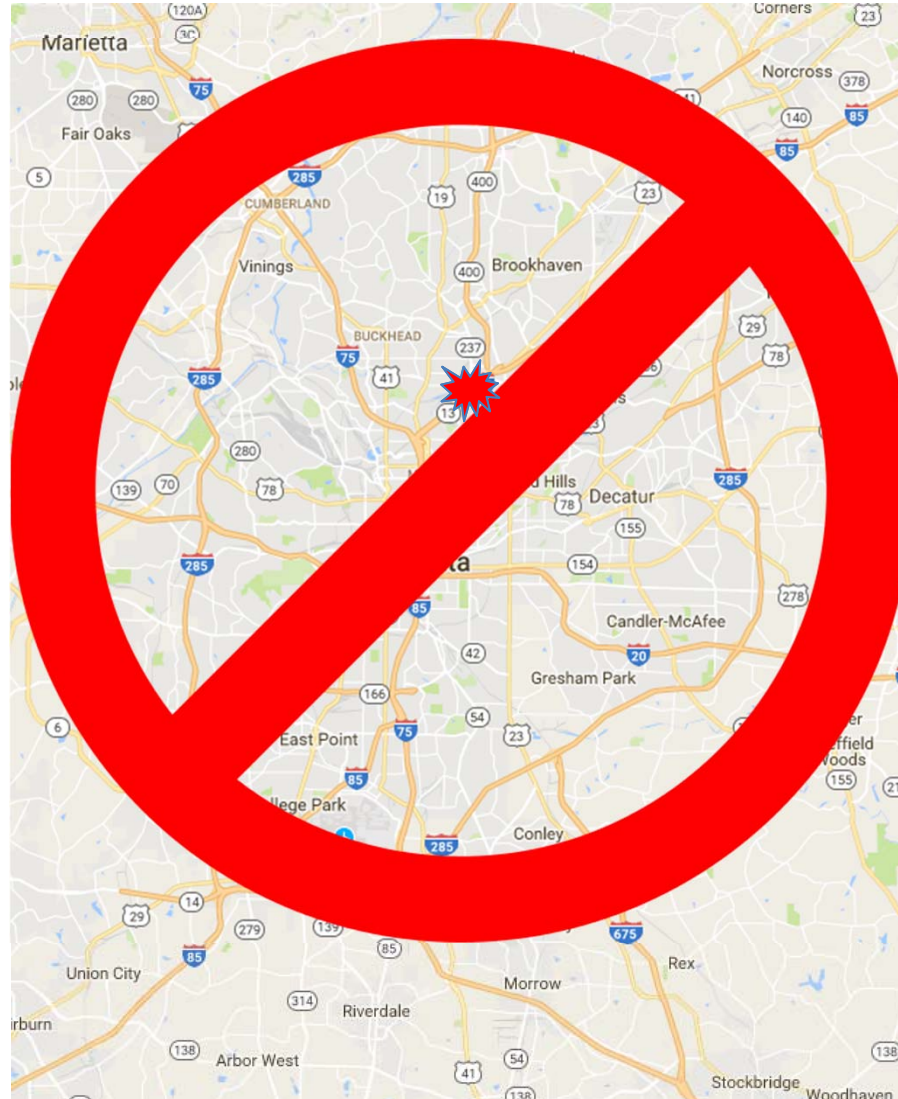


Average:
10.58%
Increase

	3/30/17	3/31/17	4/1/17	4/2/17	4/3/17	4/4/17	4/5/17	4/6/17	4/7/17	4/8/17	4/9/17	4/10/17	4/11/17	4/12/17	4/13/17	4/15/17	4/16/17	4/17/17	4/18/17	4/19/17	4/20/17	4/21/17	4/22/17	4/23/17	4/24/17	4/25/17	4/26/17	
Average	6.28%	22.97%	16.73%	2.80%	5.97%	14.19%	0.01%	21.38%	20.73%	7.30%	-7.58%	12.16%	15.67%	18.65%	19.05%	3.16%	-19.77%	14.11%	14.66%	15.17%	17.82%	22.04%	7.68%	-15.63%	10.25%	20.64%	19.27%	
SR 155	0.03%	2.72%	-17.46%	-28.20%	-10.31%	-2.70%	-12.03%	1.14%	0.52%	-17.16%	-25.60%	-1.47%	0.53%	1.56%	4.13%	-17.24%	-31.61%	-1.30%	-2.20%	-3.10%	0.37%	3.02%	-12.95%	-29.39%	-1.91%	1.55%	2.85%	
Cheshire Bridge	16.40%	95.18%	128.37%	109.38%	84.25%	95.46%	73.31%	95.38%	85.80%	63.30%	44.71%	69.83%	74.77%	72.94%	75.90%	52.05%	22.31%	58.95%	63.61%	69.57%	68.77%	76.71%	59.33%	21.72%	59.32%	82.23%	72.67%	
North Druid	3.43%	-3.58%	-21.67%	-27.16%	-19.65%	-15.02%	-21.46%	-5.18%	1.42%	-12.65%	-23.10%	-0.86%	-5.07%	2.26%	2.26%	-13.81%	-27.03%	4.90%	6.55%	4.59%	2.37%	6.06%	-10.92%	-27.20%	-1.61%	4.22%	5.92%	
SR 141 Peachtree	10.92%	34.32%	31.06%	7.98%	3.97%	21.18%	5.54%	23.39%	24.52%	19.56%	-0.62%	13.59%	16.45%	18.85%	18.86%	15.58%	-17.17%	11.06%	15.16%	16.11%	19.73%	23.73%	19.86%	-9.77%	-7.86%	19.27%	20.90%	
SR 3 Northside	13.70%	22.74%	-7.85%	-29.42%	-13.68%	-3.22%	-21.81%	2.18%	2.41%	-17.32%	-35.37%	-3.80%	3.95%	10.00%	8.09%	-18.79%	-44.97%	17.93%	6.06%	3.28%	8.48%	12.62%	-9.77%	-34.51%	-3.54%	7.01%	6.51%	
SR 42 Moreland	6.40%	9.39%	4.70%	-12.96%	-2.77%	3.61%	-9.03%	6.41%	7.72%	3.46%	-8.23%	-6.78%	0.77%	1.61%	0.76%	1.02%	-17.31%	-2.95%	-0.81%	-0.42%	2.79%	7.55%	-2.16%	-17.22%	-4.99%	-0.79%	0.24%	
Weekday Only	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%	15.32%
SR 9 Peachtree	-6.96%	0.00%	0.00%	0.00%	0.00%	0.00%	-14.44%	26.31%	22.74%	11.88%	-4.81%	14.63%	18.28%	23.35%	23.35%	3.33%	-22.63%	10.14%	14.26%	16.17%	22.24%	24.59%	10.40%	-14.98%	14.47%	30.98%	25.81%	

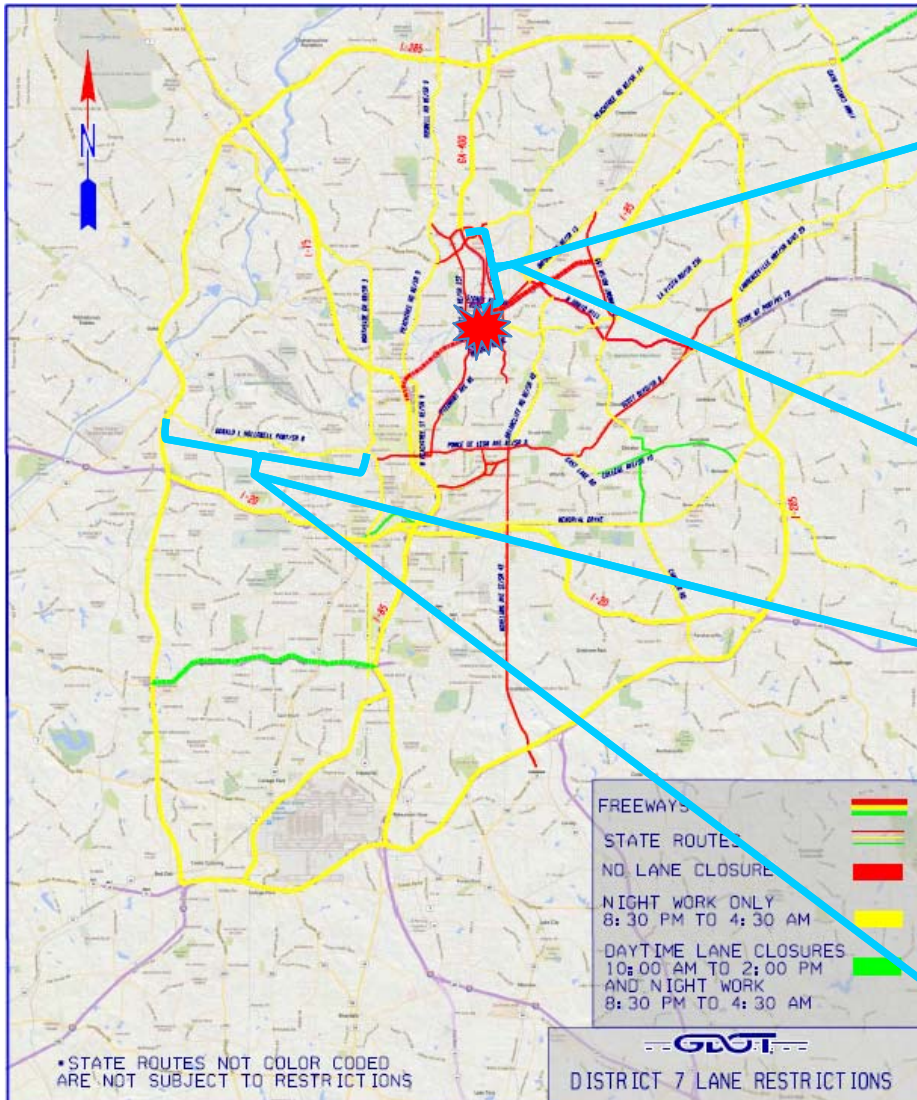


Lane Closure Restrictions

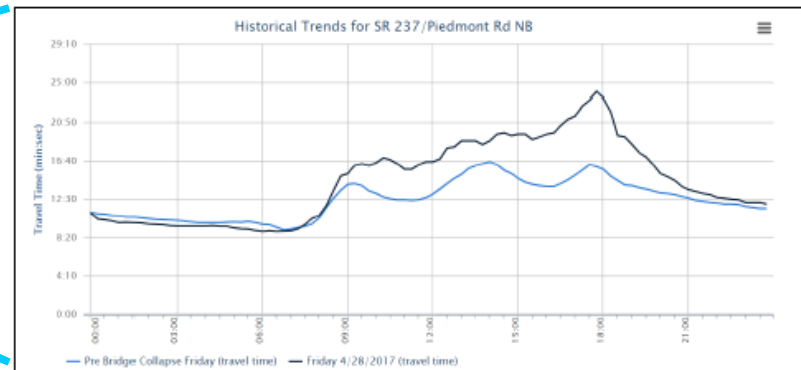




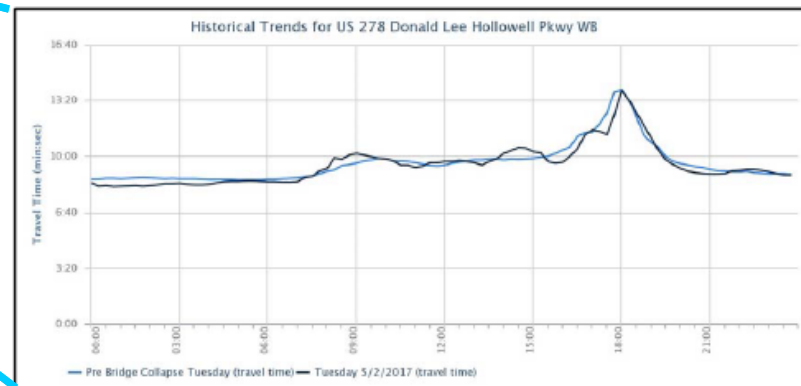
Lane Closure Restrictions



Northbound
 Extents: Monroe Drive to SR 9/Roswell Road
 AM Peak Travel Time (Hist. Friday): 14.2 mins PM Peak Travel Time (Hist. Friday): 16.6 mins
 AM Peak Travel Time (Friday 4/28): 17.1 mins PM Peak Travel Time (Friday 4/28): 23.9 mins

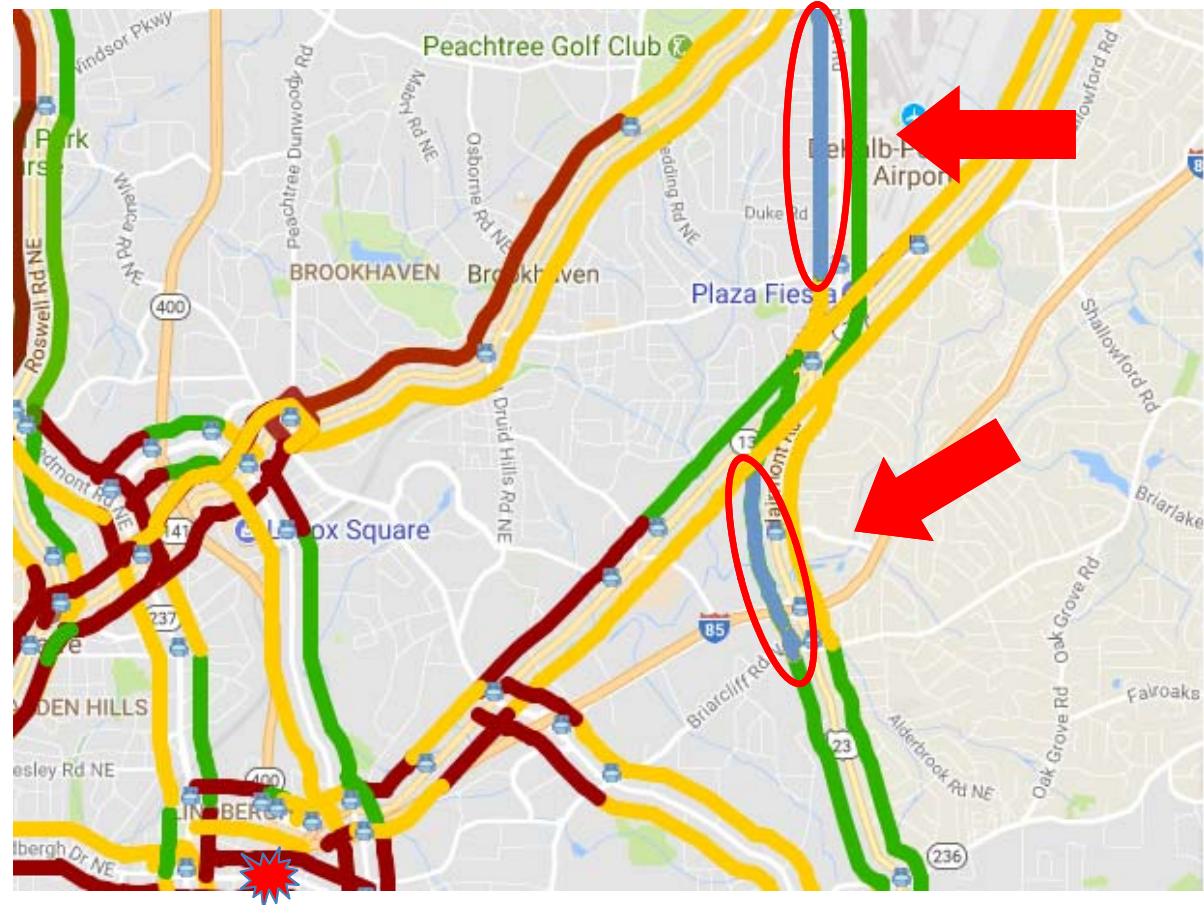


Westbound
 Extents: Chestnut Street to I-285 NB Ramps
 AM Peak Travel Time (Hist. Tuesday): 9.9 mins PM Peak Travel Time (Hist. Tuesday): 14.0 mins
 AM Peak Travel Time (Tuesday 5/2): 10.2 mins PM Peak Travel Time (Tuesday 5/2): 13.9 mins





Pinpointing Outliers

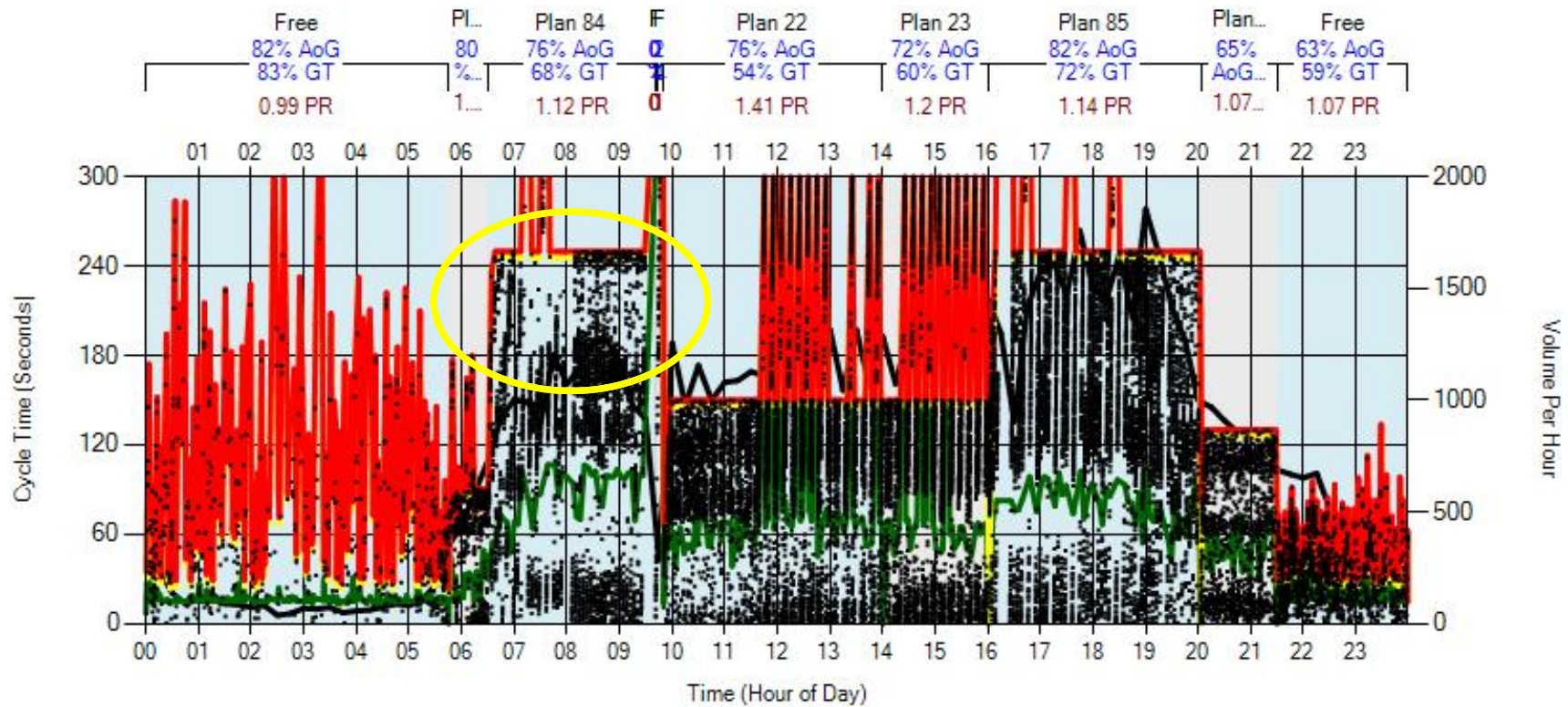




Adjusting Timing

Phase 6: Southbound

AoG = 76%





In Closing

- Have relationships in place
- Apply lessons learned from prior experiences
- Leverage existing programs
- Communications – at all levels – is critical

“There was never any doubt.”



John L. Hibbard, PE
Operations Division Manager
Georgia Department of Transportation
jhibbard@dot.ga.gov
404-631-1401