RNC 2016 Comes to Cleveland

How do you move all the people?
AGENDA

1. Managing Traffic in Downtown Cleveland (PLANNING)
   Nancy Lyon-Stadler, PE, PTOE
   WSP | Parsons Brinckerhoff

2. Moving Delegates (IMPLEMENTATION)
   Dave Lastovka, PE
   ODOT District 12

3. RNC Week (SUCCESS!)
   Valarie J. McCall
   City of Cleveland
MANAGING TRAFFIC IN DOWNTOWN CLEVELAND
Downtown Cleveland

Public Parking

- **P** within Zone 1
- **P** outside of Zone 1
1. Road Closures
2. Media Shuttle

ZONE 1
ZONE 2
ZONE 3
ZONE 4

- closed
- local access only
- media shuttle (closed to public)
- area essentially closed to traffic
Additional Closure Impacts

- I-90 East Off-Ramp to E.9th St
- I-77 North Off-Ramp to E.9th St
- EB+WB Carnegie (W.20th St to E.14th St)
- NB E.9th St (Canal to Prospect)
- NB+SB Orange (Carnegie to E.14th St)
- Canal Rd (TC parking garage to E.9th St)
- Broadway (E.9th St to E.14th St)
Existing Traffic Patterns - Zone 1

AM Peak
- 30% 45%
- 25% 45%

PM Peak
- 65% 30%
- 25% 45%
Redistribution Assumptions – Zone 1 Closure

Origin-Destination data is unknown, so assumptions were made to redistribute traffic affected by the Zone 1 road closures.

- Inbound AM traffic is predominantly commuters heading into the CBD
- Outbound PM traffic is predominantly commuters leaving the CBD
- Some traffic will find other parking in the CBD (predominantly Zone 2) and other traffic will find parking outside the CBD
- Some inbound Zone 1 traffic is destined for other parts of downtown (likely Zone 2); those trips are accounted for with the redistribution of inbound trips and would not be double-counted as outbound trips
- Adequate parking supply to accommodate demand
• High (over capacity) left turns at
  – EB Superior at Huron-W.9th St
  – EB Superior at W.6th St
  – EB Lakeside at W.3rd St
  – NB E.9th St at Vincent
  – NB E.9th St at St Clair

• Relatively high NB through volume on W.3rd St north of Lakeside

• Limited NB access from E.9th St into CBD
  (before redistribution for SB E.9th St closure)
Redistribution– SB E.9th St Closure

Option 1: Redistribute all outbound traffic to NB E.9th Street
Option 2: Redistribute outbound to north and east (50/50)

Assumptions
Origin-Destination data is unknown, so assumptions were made to redistribute traffic affected by the southbound E.9th Street closure.

• All southbound traffic is destined for CBD
• All EB rights and WB lefts are leaving CBD
• Southbound traffic at south end of E.9th Street (approaching Carnegie) is addressed (removed) with upstream redistribution
  – Applies to inbound and outbound traffic
• Directional distribution patterns at intersections were considered when redistributing traffic to east and west of E.9th Street
• Adequate parking supply to accommodate demand
Baseline Closure

AM PEAK Option 1 (E.9th St)

outbound traffic diverted north on E.9th St to SR 2

- Provide EB left at Euclid and Superior (Option 1)
- High volume left turns at
  - NB left E.9th St at Vincent
  - NB left E.9th St at St Clair
  - SB left E.9th St at St Clair (*high but ok*)
  - EB left St Clair at E.9th St
  - SB left E.9th St at Lakeside
  - EB left Lakeside at E.9th St

- Traffic on St.Clair with Ontario-W.3rd closure
  - High NB left volume into central CBD but no other inbound access north of Vincent
  - Divert via SR-2 west to W.3rd Street
  - Divert via Alfred Lerner Way to W.3rd Street
  - Provide NB left at Superior and/or Lakeside
• Provide EB left at Superior (Option 2)
• High volume left turns at
  – NB left E.9th St at Vincent
  – NB left E.9th St at St Clair
  – SB left E.9th St at St Clair \textit{(high but ok)}
  – EB left St Clair at E.9th St
  – SB left E.9th St at Lakeside
  – EB left Lakeside at E.9th St
• Traffic on St.Clair with Ontario-W.3rd closure
  – High NB left volume into central CBD but no other inbound access north of Vincent
  – Divert via SR-2 west to W.3rd Street
  – Divert via Alfred Lerner Way to W.3rd Street
  – Provide NB left at Superior and/or Lakeside
Baseline Model Redistribution

Options 1 & 2 (AM/PM)
Baseline Model

Mitigating Measures

• Reconfigure intersections to allow left turns on E.9th Street corridor
  – Superior / E.9th Street: northbound, eastbound
  – Lakeside / E.9th Street: northbound, eastbound
  – Through travel on St Clair not permitted west of Ontario
  – Especially important if capacity on St Clair is reduced for media shuttle

• Optimize operational efficiency with LEOs at intersections with heavy impacts
  – Superior / W.9th St-Huron
  – Superior / W.6th St-Prospect
  – W.3rd St at Lakeside, Summit and SR-2 ramps
  – E.9th Street corridor intersection, Vincent to Shoreway (SR-2)

• Prohibit on-street parking on critical roadways

• Minimize media shuttle impacts to traffic flow on Lakeside and St Clair

• Identify alternate parking outside CBD to relieve Zone 1 parking demand (CSU?)
  – Prefer with access to RTA service

• Enhance RTA service
  – Increase capacity (frequency and/or vehicle size)
  – Discounts for RNC week (consider free service to and/or within CBD)
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- NB E.9th St (Canal to Prospect)
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- Canal Rd (TC parking garage to E.9th St)
- Broadway (E.9th St to E.14th St)
Event Model

Local Access Impacts

**Lorain-Carnegie**
- EB to CBD
  - Superior
  - Off network
  - to Shoreway or I-90?
- EB to points east / Univ Circle
  - Off network (SR-2, I-490, I-77, E.55th)
- WB to CBD
  - E.14th, E.18th, E.22nd St, Prospect, Chester
- WB to points west
  - Off network to highway (Prospect, Chester, E.30th, E.22nd-Orange)
- WB to I-90W
  - E.14th to I-77 to I-490

**Orange (Woodland)**
- Northbound
  - E.14th, E.18th, E.22nd St
  - Reopen Woodland on to I-77N?

**Canal Rd**
- Estimated max 600 vph EB/WB
- Local diversion (parking access)
Baseline Model Volumes

Options 1 & 2 (AM/PM)
Event Model

Highway Access Impacts

I-90W on at E.9th St
- divert to NB E.9th St (option 1 or 2)
- 150/530 vph (est)

I-77S on at E.14th St
- remains open
- 40/430 vph (est)

I-90E off to NB E.9th St
- divert to SB E.9th St or other interchanges
- 1320/430 vph

I-77N off to SB E.14th St
- divert to SB E.9th St or other interchanges
- 1400/600 vph

I-77N off to NB E.14th St
- remains open
- 620/180 vph

I-77N on at Woodland/E.30th St
- reopen ramp
• Divert traffic to highway network to access CBD from north and east to reduce congestion around Zone 1 road closures (Carnegie, E.9th St)

• Maximize operational capacity at interchanges serving the CBD to mitigate focused impacts on Shoreway interchanges at E.9th St and W.3rd St
  – Prospect (add LEO)
  – Chester (modify configuration to accommodate NB left turns; add LEO)
  – Superior (add LEO)
  – E.9th St (add LEO)
  – W.3rd St (add LEO at Summit-Huntington Garage intersection and ramp intersections)

• Close I-77N off ramp to E.14th St south
  – Prevent inadvertent loading of NB E.9th St

• Reopen Woodland / E.30th on ramp to I-77N
  – Facilitate highway access instead of funneling everyone to E.14th and E.22nd Streets

• Add LEOs to CBD intersections, as appropriate

• Include recommendations from Baseline Model
MOVING DELEGATES
Moving Delegates - Buses
Moving Delegates - Buses

South Driver Directions Red Cluster
Moving Delegates – Eyes on the Road
Moving Delegates-Ready for Action

11 Mobile Response Teams Equipped with:

- Traffic Control Truck/Attenuator
- Loader on Trailer with Bucket and Forks
- Steel Plates and Drum Dollies to be used as people movers by OSP
- Dump Truck w/Front Broom Loaded w/Sand
- Skid Steer on Trailer
- Response Pick-up Truck Equipped with:
  - Torches, Push Bumpers, Large Magnets to attach to Front of Truck to remove Nails/Metal, Hydraulic Bolt/Chain Cutter, Cage Bolts to Unlock Break Chambers of Abandoned Trucks, Chain Saws, Brooms, and Shovels
Moving Delegates - USSS MACC
Cleveland hoping for convention boost in glow of RNC success
RNC WEEK
Terrific Law Enforcement Support
Peaceful Demonstrations at Public Square
Activity on the Streets

E. 4th Street

Euclid Avenue
Effective Traffic Management

Northbound E.9th Street

Westbound Lakeside at E.9th Street

E.9th Street at Lakeside

Media Shuttle – Exclusive travel on E.9th Street between Cleveland Convention Center and Quicken Loans Arena
Pedestrian Flow into Quicken Loans Arena
Finding the Buses “home”
RNC 2016 – Success for Cleveland!