

PROPOSED SHORT-TERM OPERATIONAL IMPROVEMENTS

Intersection of Route 28 and Braddock Rd/Walney Rd



Virginia Department of Transportation

November 14, 2005

Route 28 Corridor Improvements

1992 Improvements (Phase I)

- Widen From 2 to 6 Lanes
- Construct 3 Interchanges
- Design-Bid-Build Project Delivery
- Funded by Tax District and VDOT



Issues

➤ Recurring Congestion

- AM Peak – NB Queuing; Traffic Spills back Into I-66
- PM Peak – SB Queuing to Westfields Blvd

➤ Safety Issues

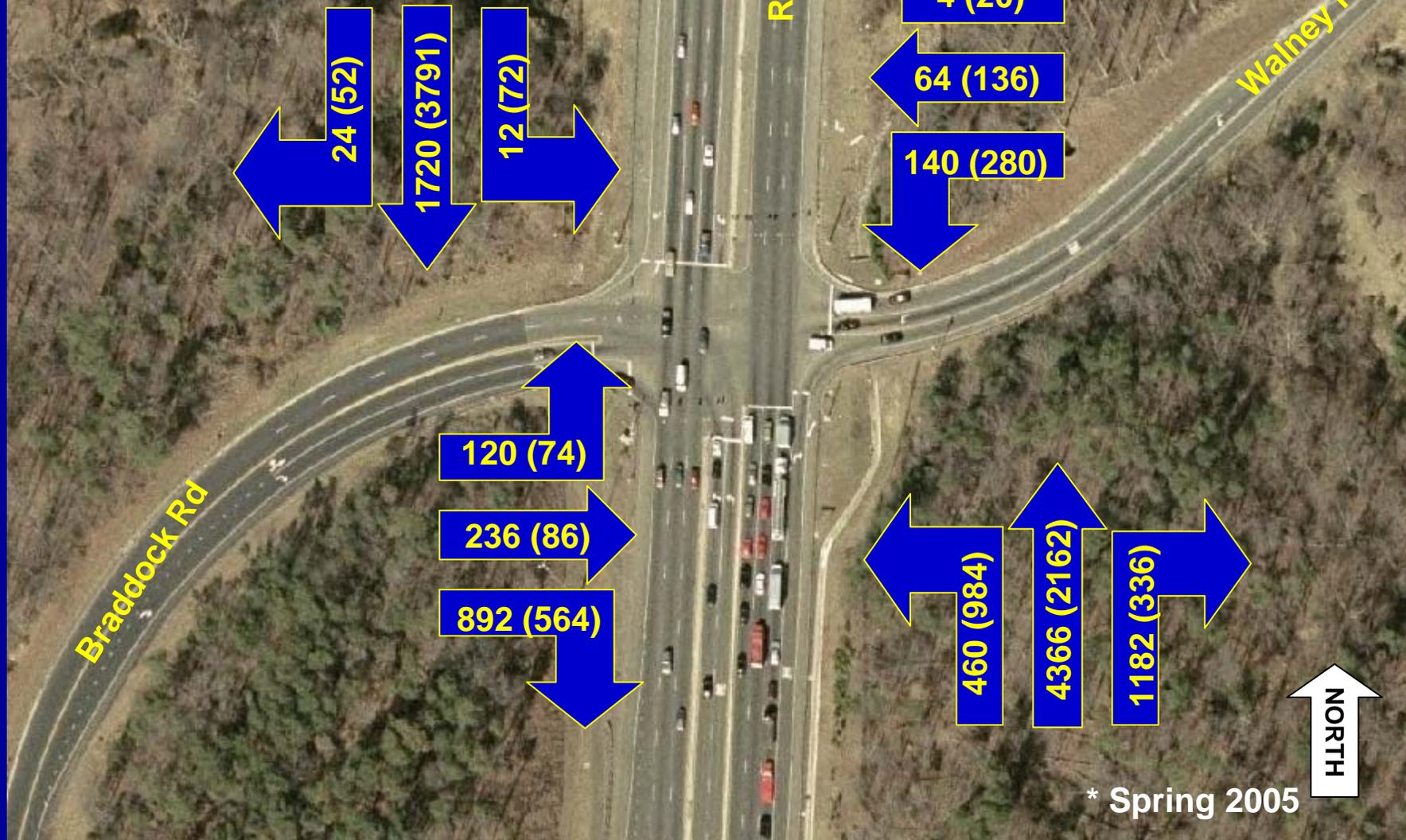
- Rear End and Side Swipe Crashes
- Angle Crashes
- Cause Non-Recurring Congestion

➤ Opening of Westfields Blvd Interchange

Study Objective

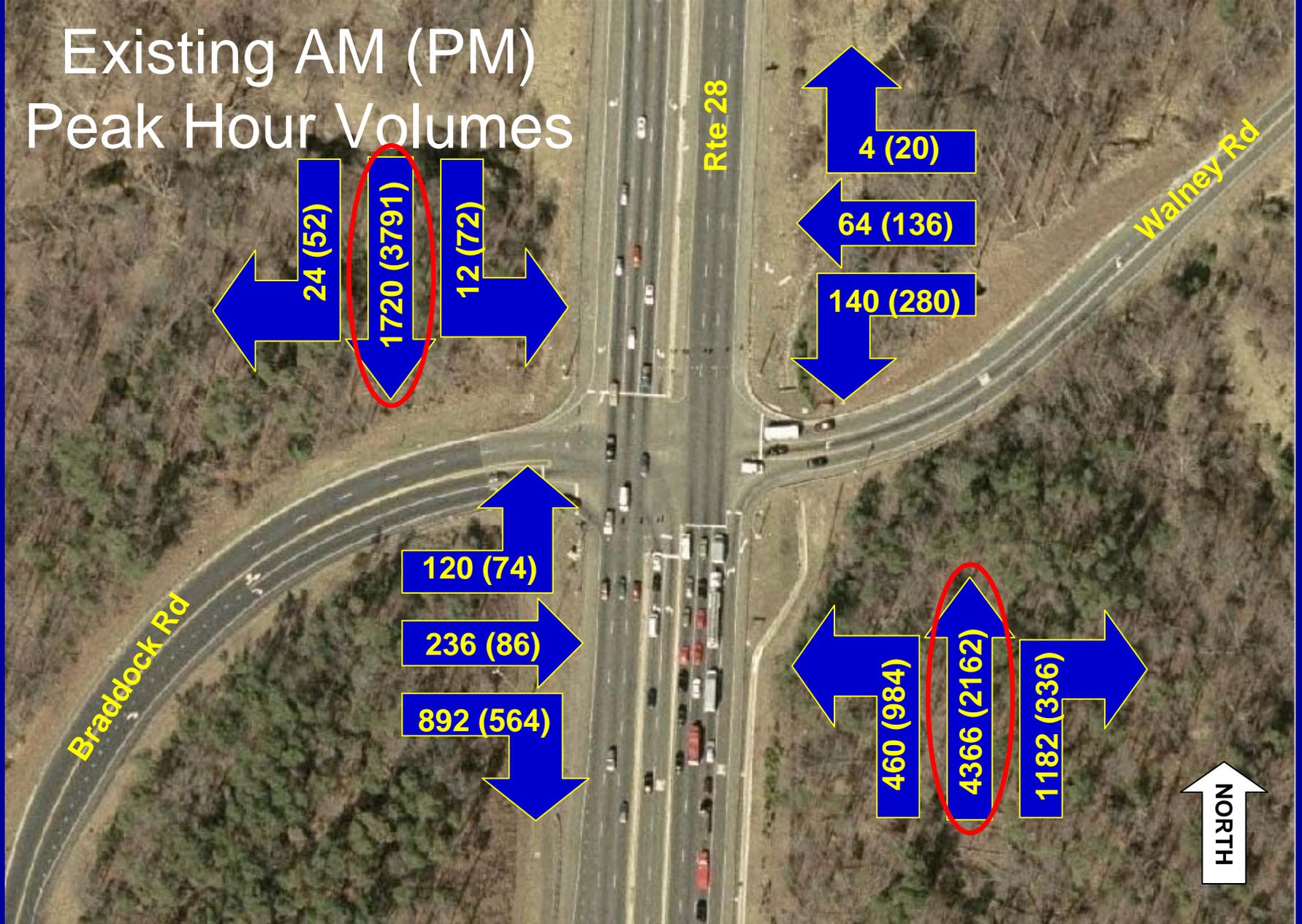
- Reduce Congestion And Improve Safety
 - Relatively Easy To Implement
 - Relatively Low Cost
- Short-Term Operational Improvement
 - Not To Preclude Long-Term Improvements
 - Serve As Phase 1 of Long-Term Solutions
- Maximize Benefits of Rte 28 Improvements

Existing AM (PM) Peak Hour Volumes*

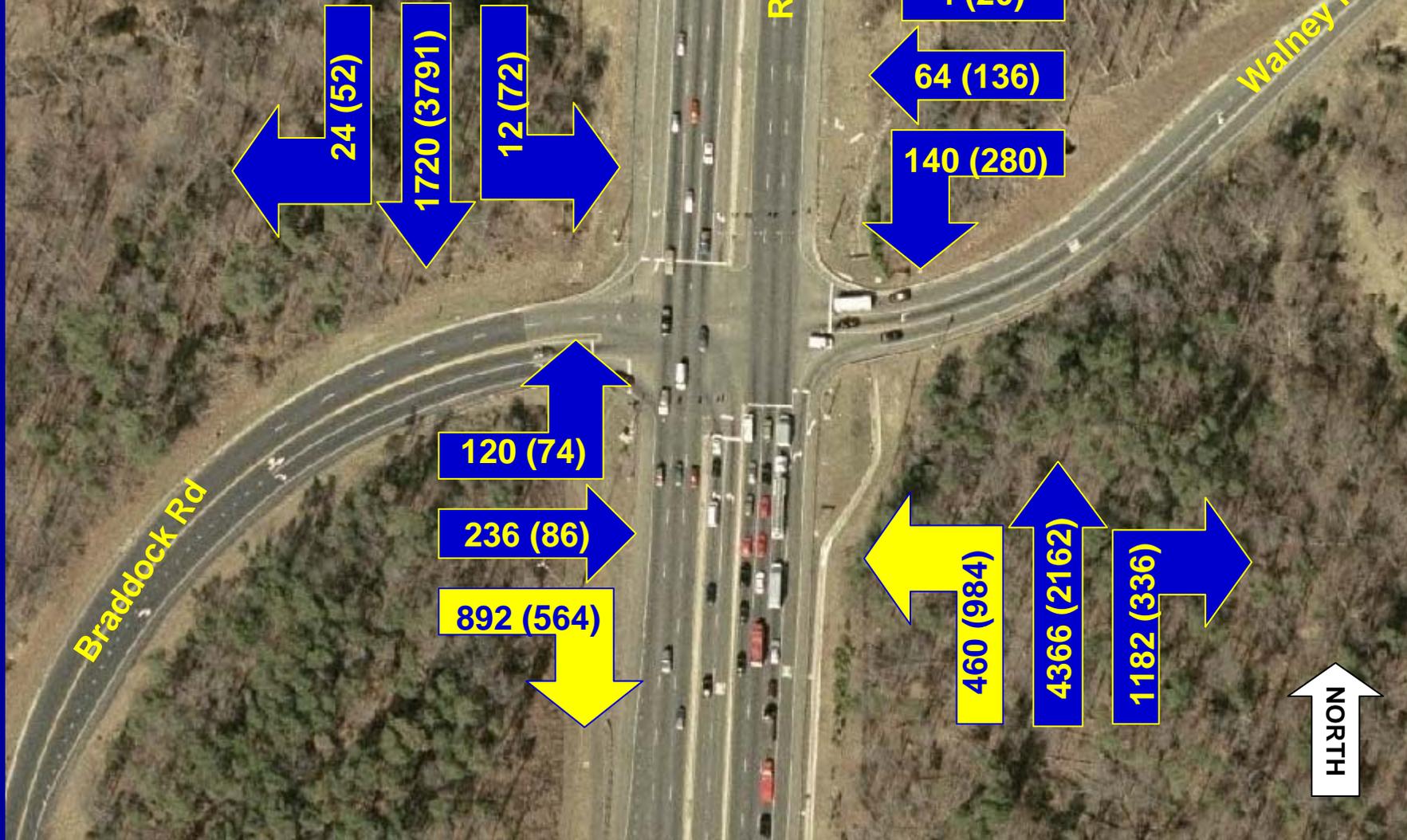


* Spring 2005

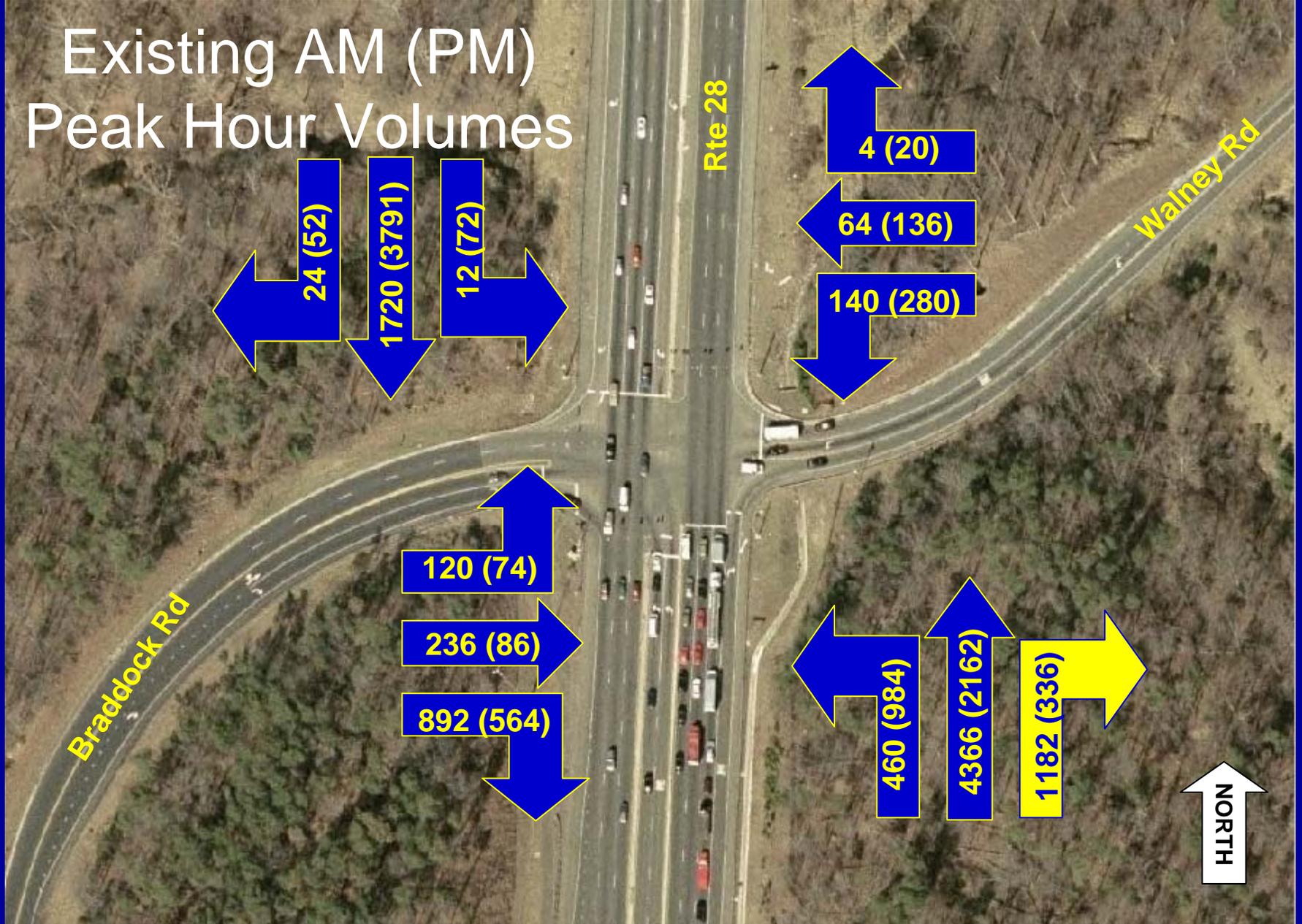
Existing AM (PM) Peak Hour Volumes



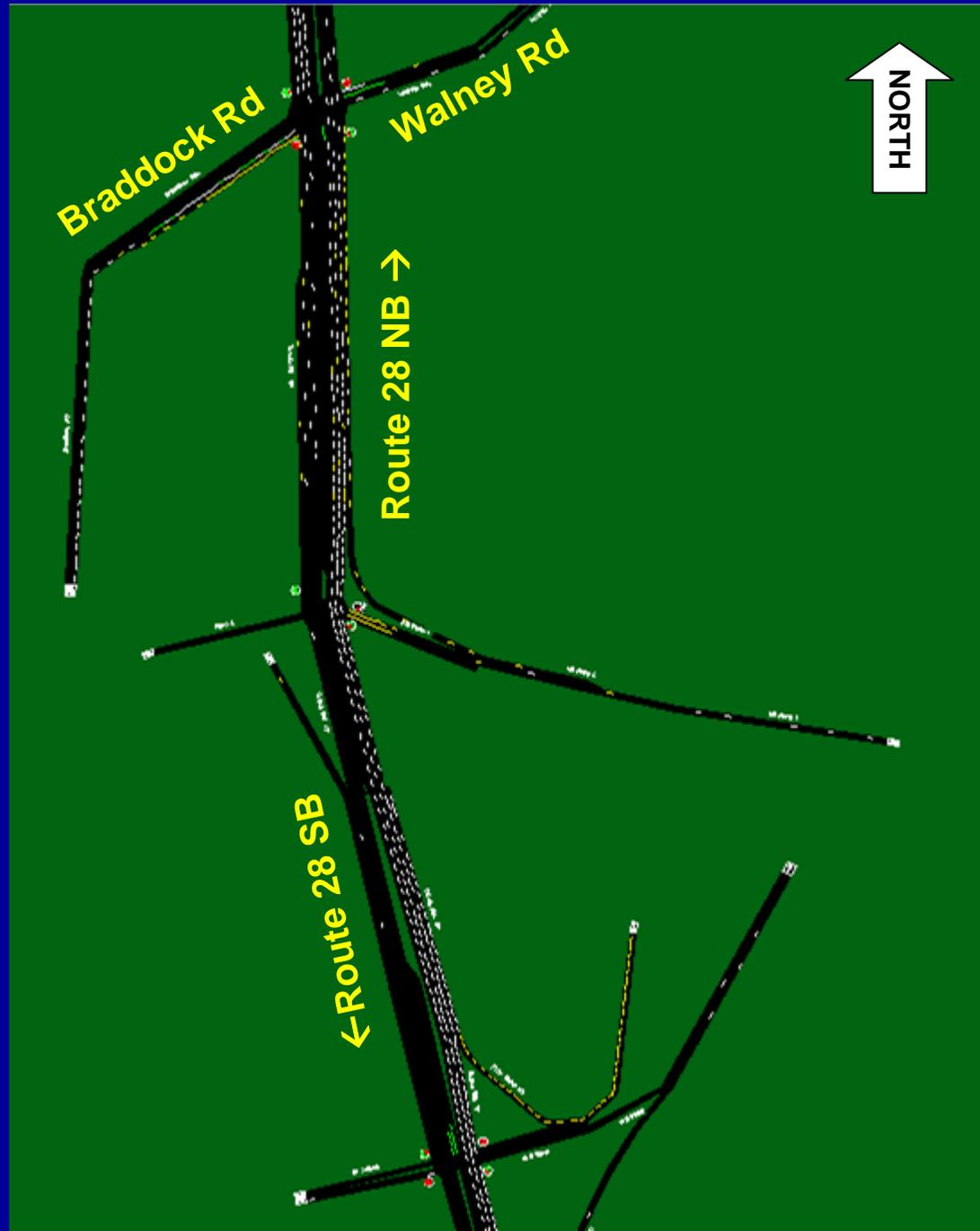
Existing AM (PM) Peak Hour Volumes



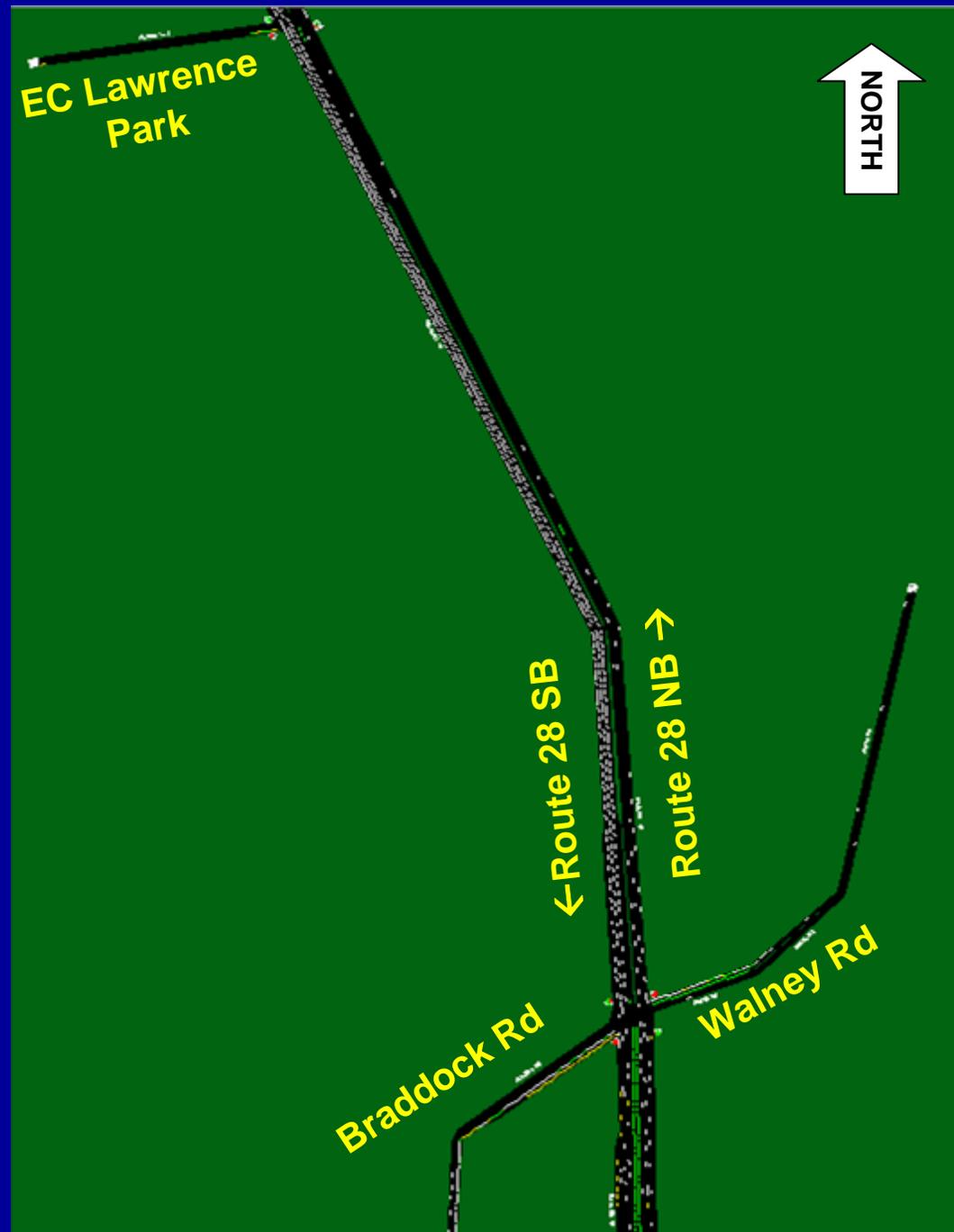
Existing AM (PM) Peak Hour Volumes



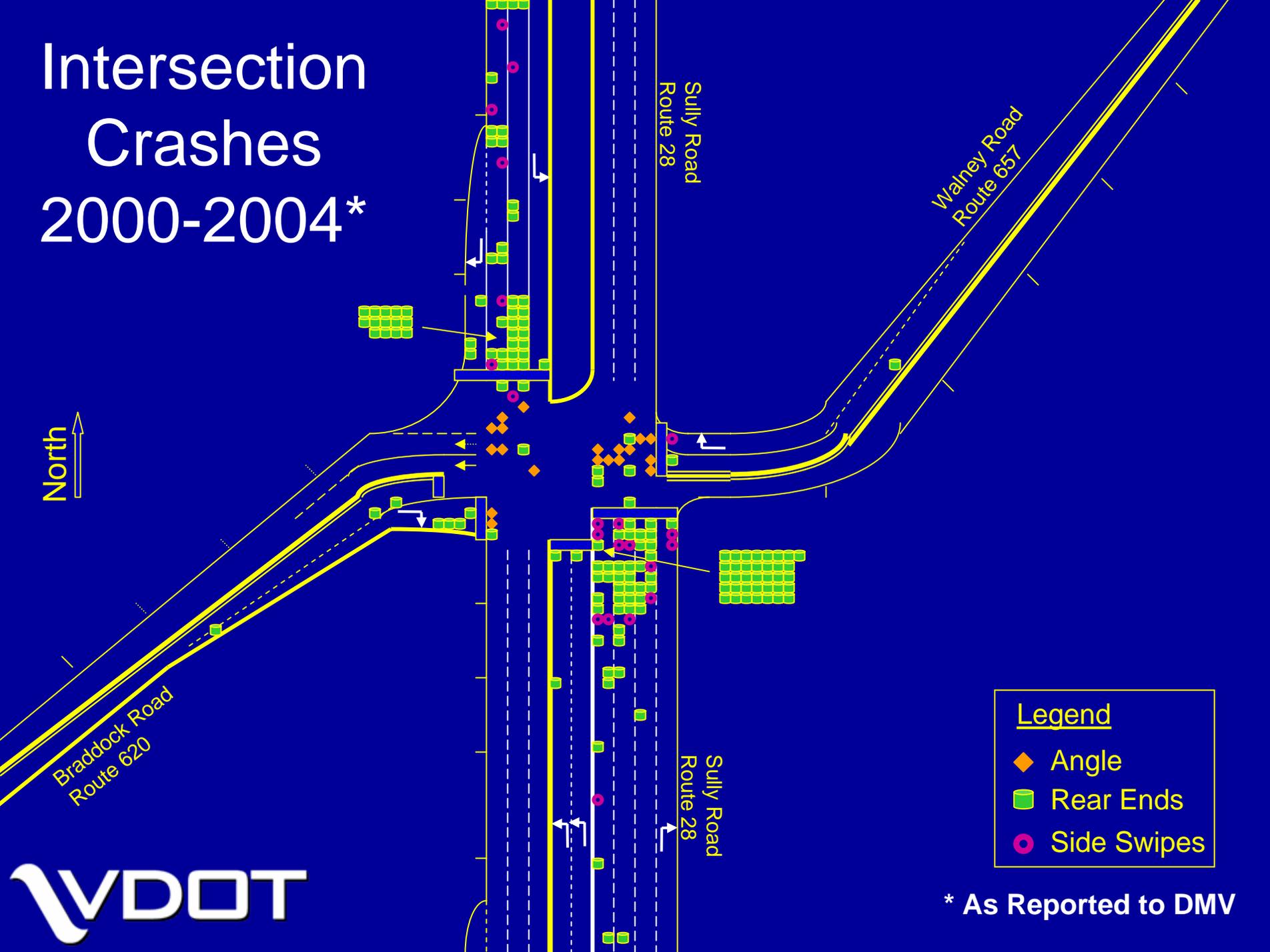
AM Peak Hour Existing Condition



PM Peak Hour Existing Condition



Intersection Crashes 2000-2004*



Legend

- Orange Diamond: Angle
- Green Square: Rear Ends
- Pink Circle: Side Swipes

* As Reported to DMV



Crash History 2000-2004*

Type of Crash	2000	2001	2002	2003	2004
Rear End	27	35	33	36	34
Side Swipe	3	5	11	3	4
Angle	3	6	4	5	4
Other	3	0	7	2	2
TOTAL	36	46	55	46	44

Proposed Operational Improvement Concept

- Geometric Improvement
 - Partial Median Closure
 - Channelized Islands for Right Turns
- Signal Improvement
 - Modify Phasing and Timing



**Median Closure for
Crossing Maneuver**

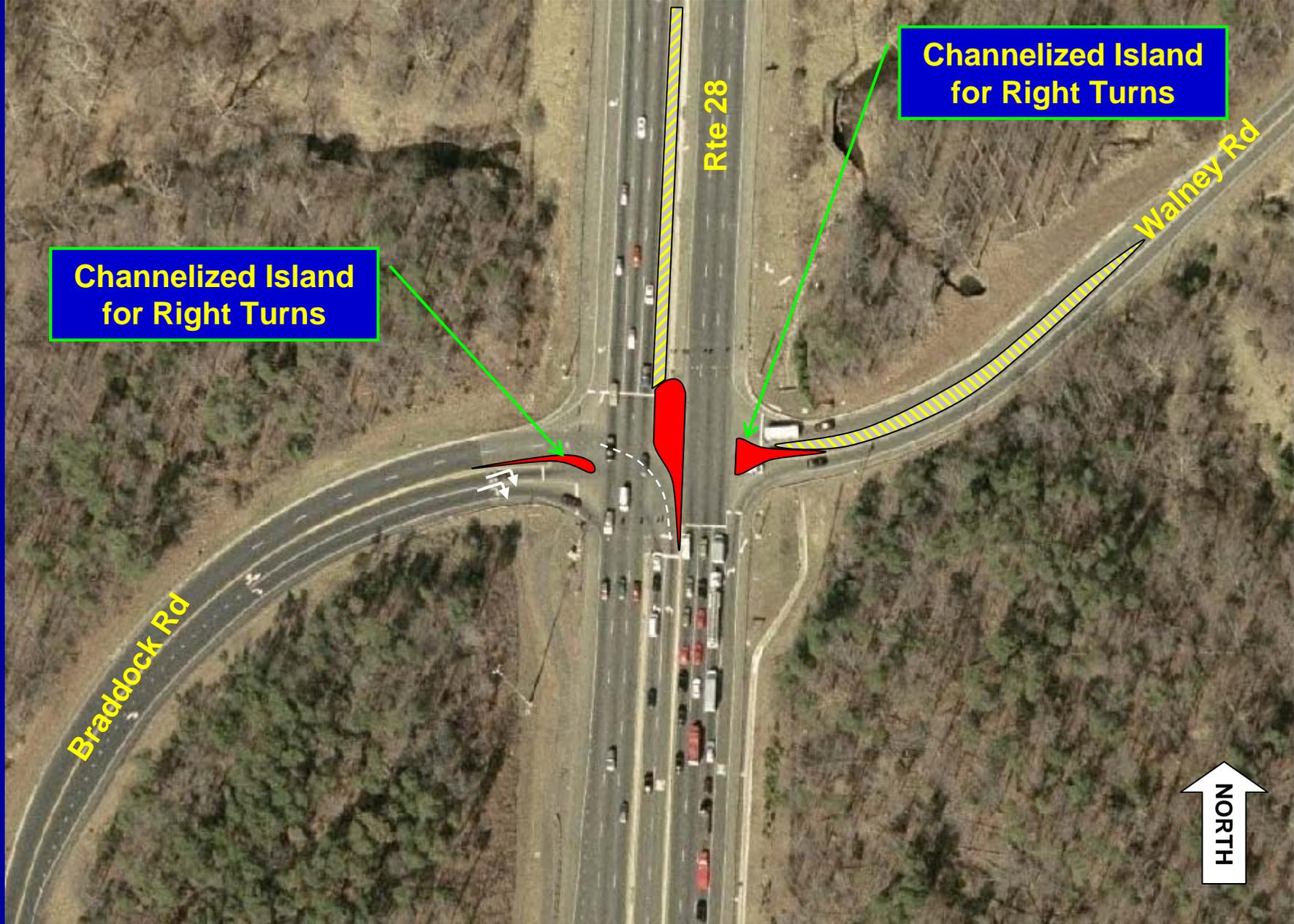
**Maintain NB Left
Turns**

Rte 28

Walney Rd

Braddock Rd





Channelized Island
for Right Turns

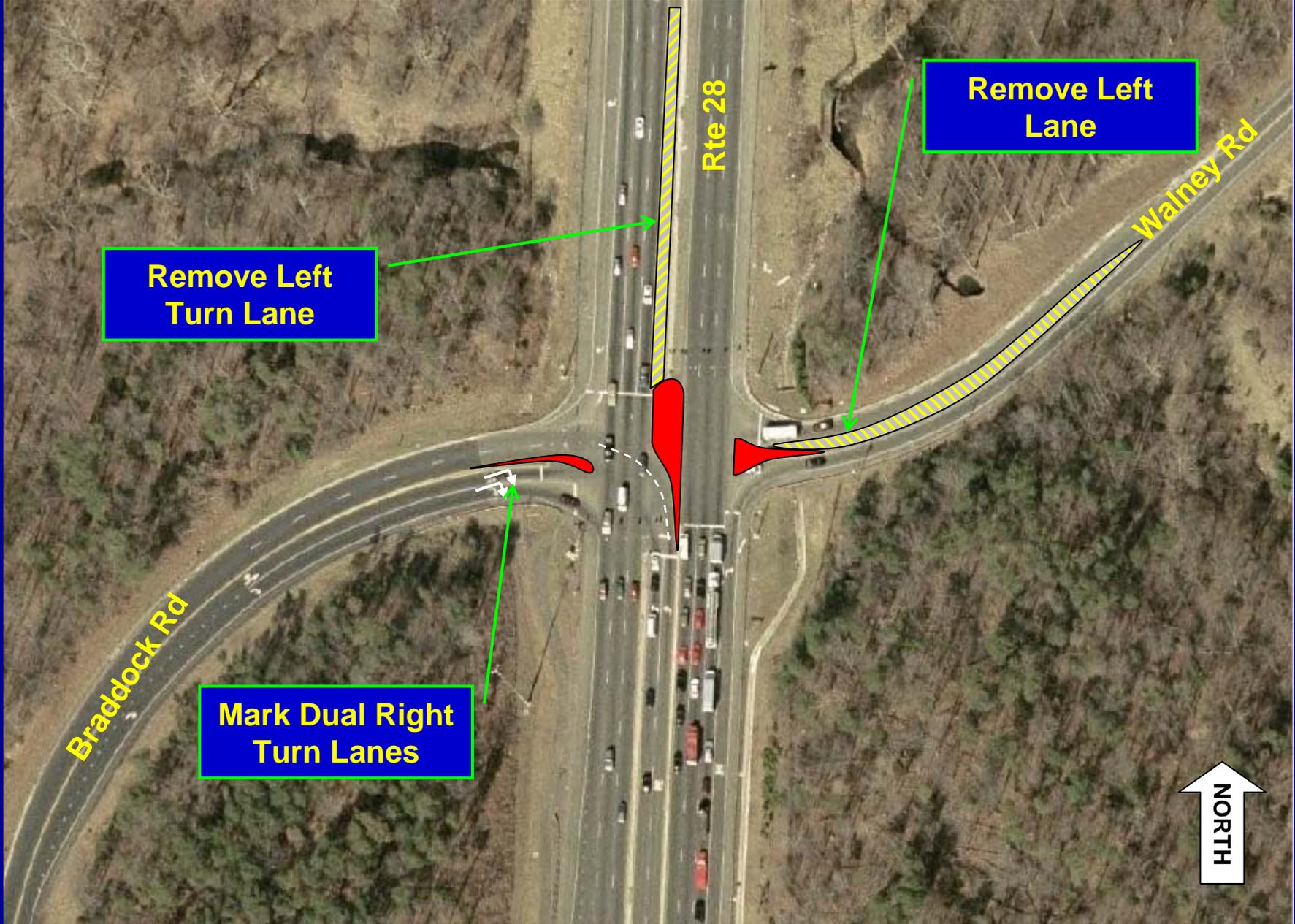
Channelized Island
for Right Turns

Braddock Rd

Rte 28

Walney Rd

NORTH



Remove Left Turn Lane

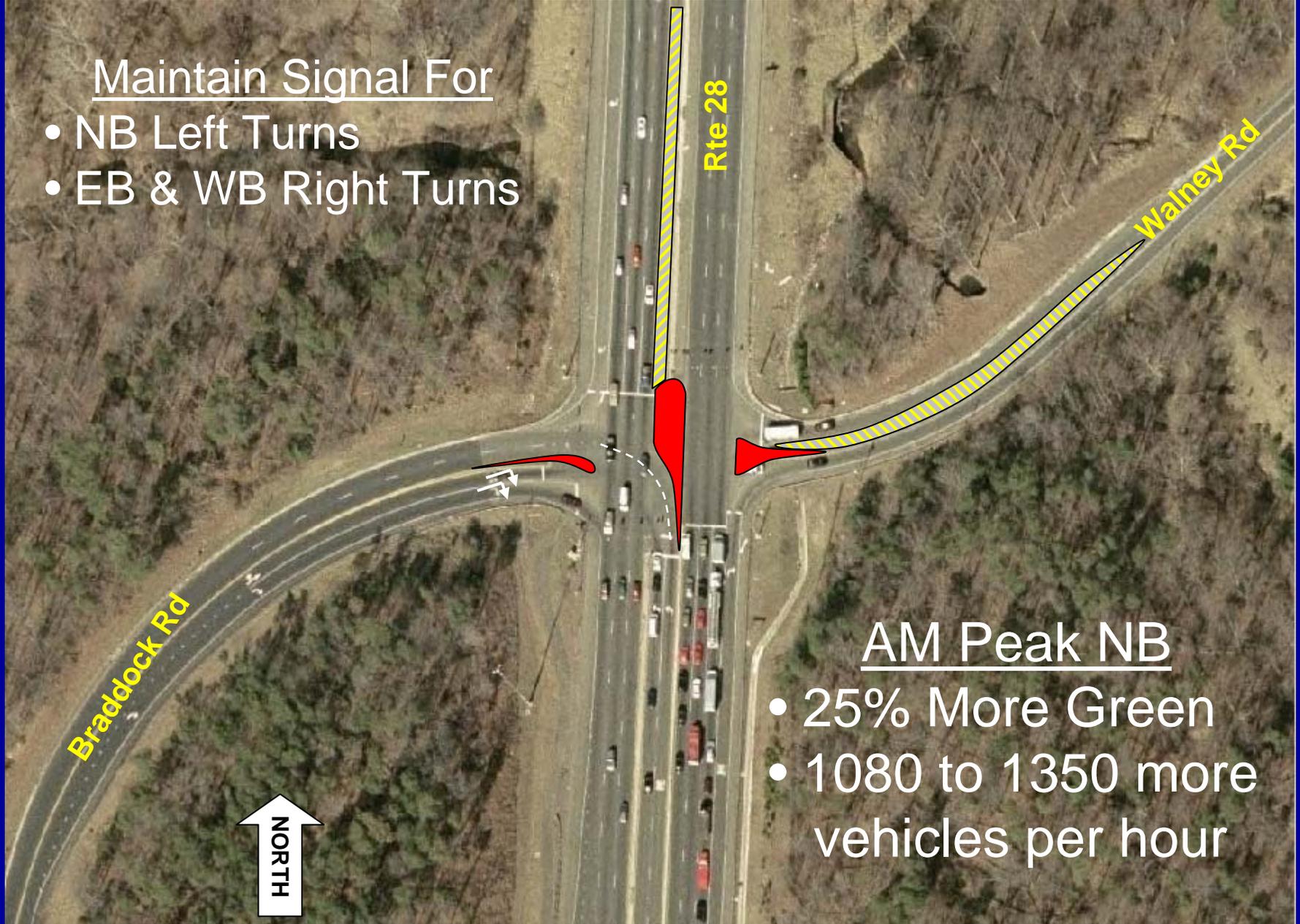
Remove Left Lane

Mark Dual Right Turn Lanes

NORTH

Maintain Signal For

- NB Left Turns
- EB & WB Right Turns

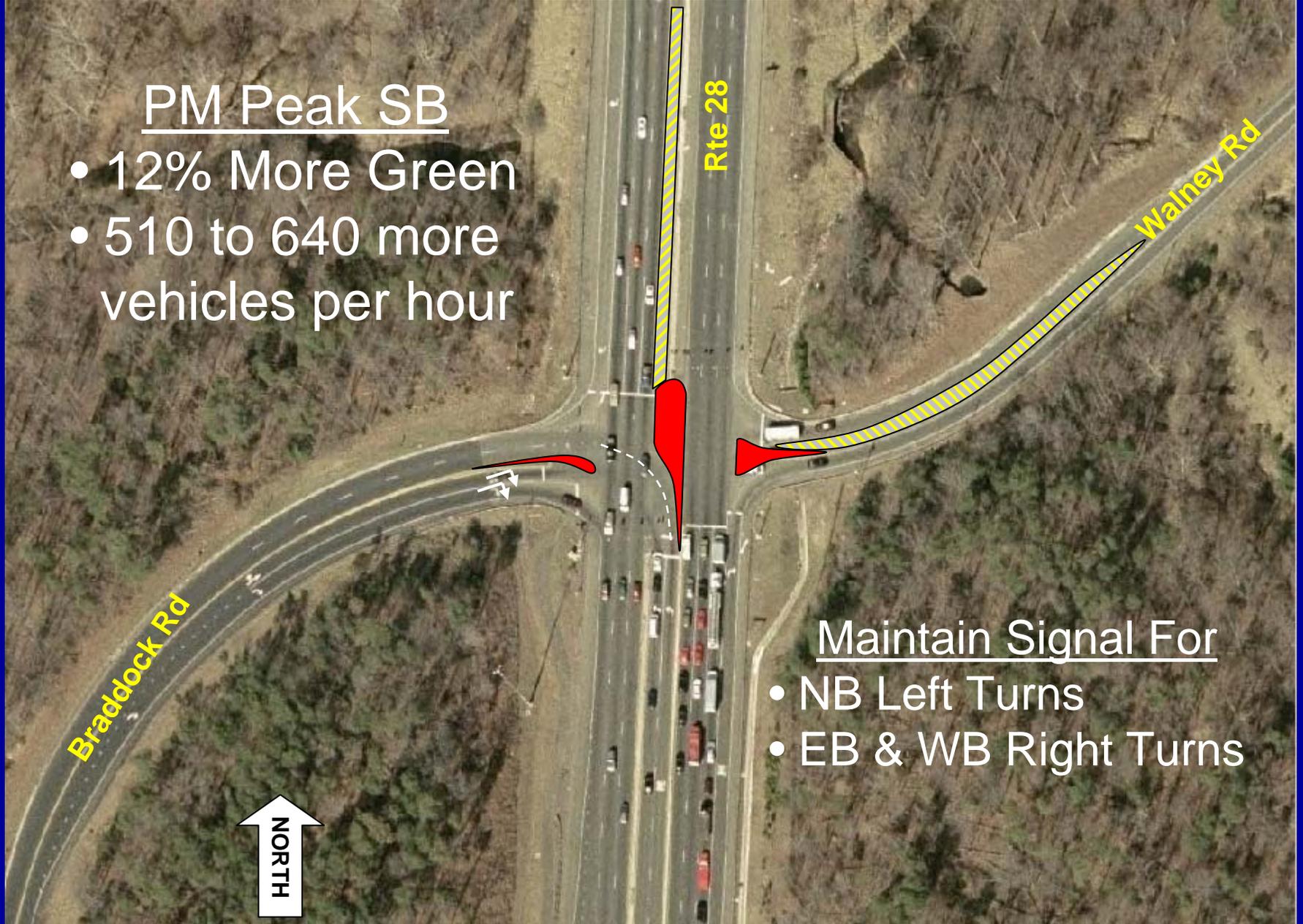


AM Peak NB

- 25% More Green
- 1080 to 1350 more vehicles per hour

PM Peak SB

- 12% More Green
- 510 to 640 more vehicles per hour



Maintain Signal For

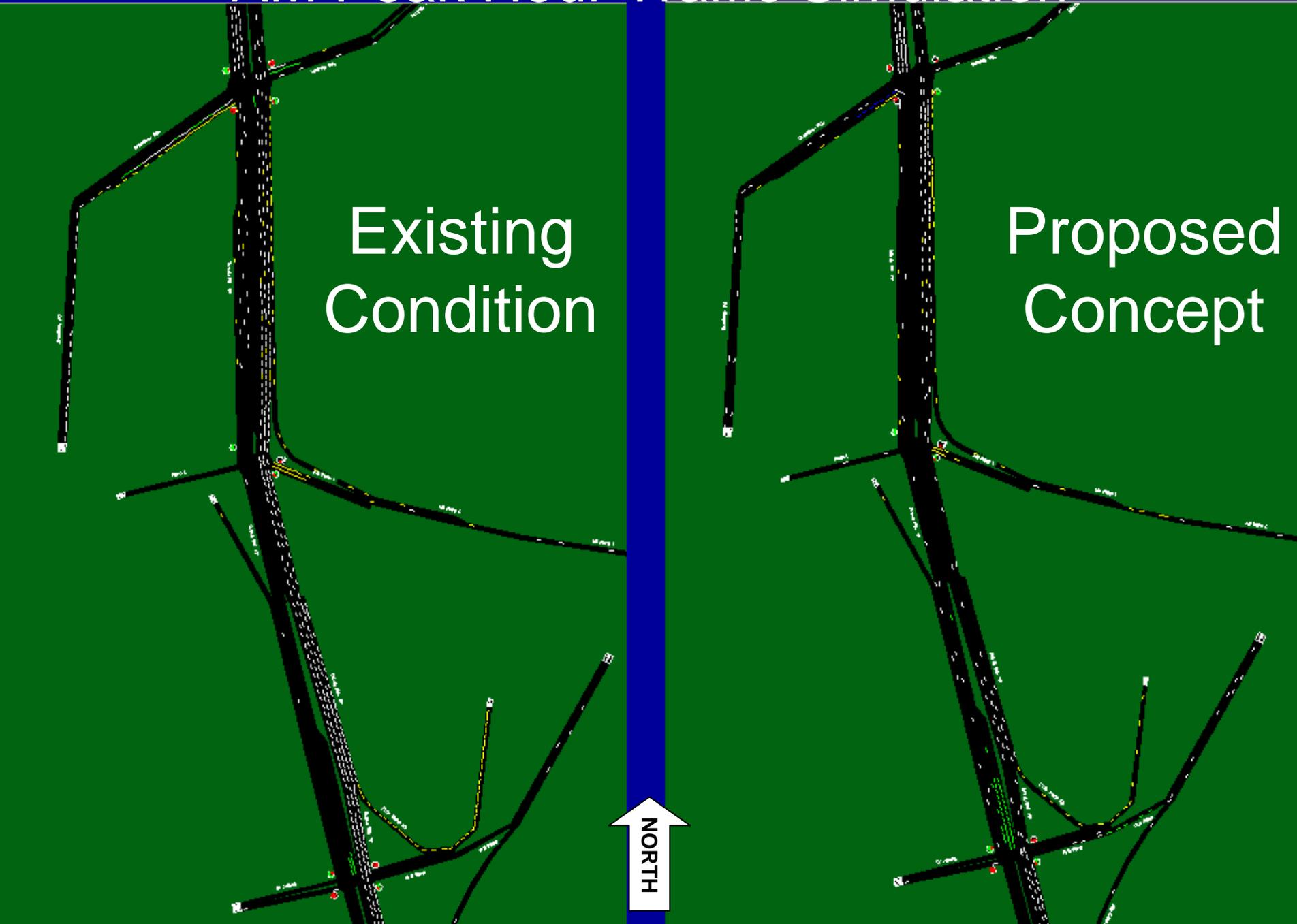
- NB Left Turns
- EB & WB Right Turns

AM Peak Hour Traffic Simulation

Existing
Condition

Proposed
Concept

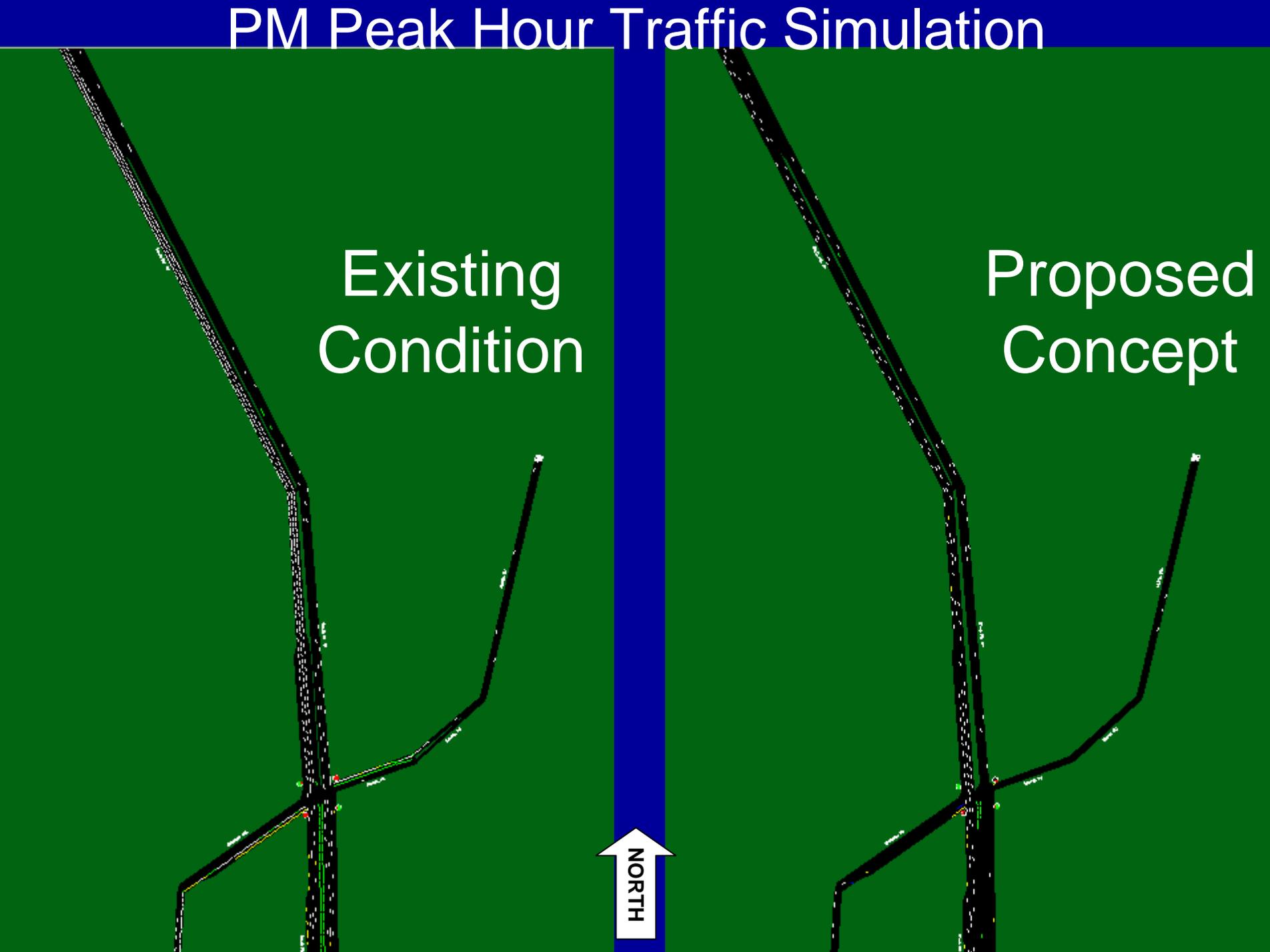
NORTH

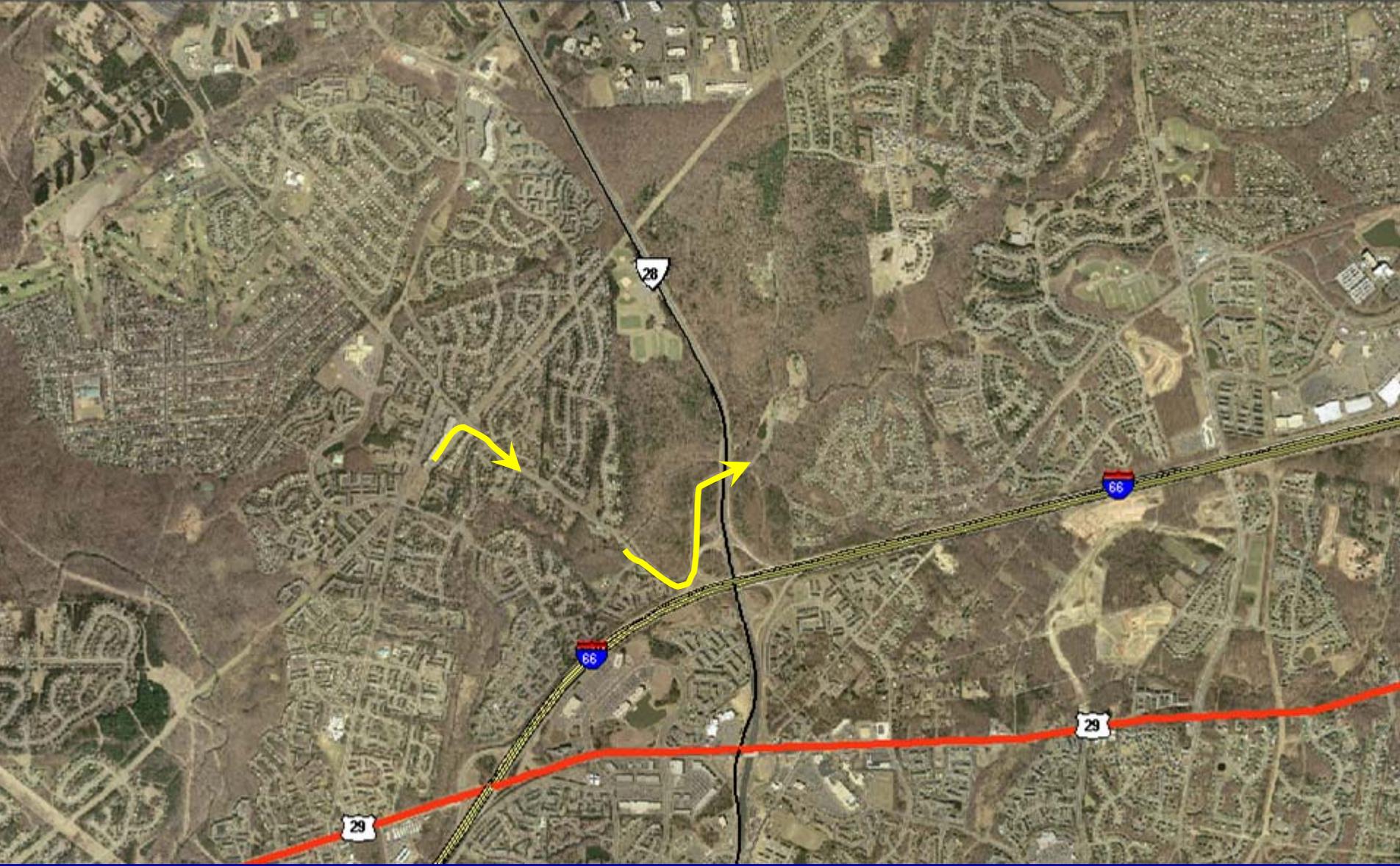


PM Peak Hour Traffic Simulation

Existing
Condition

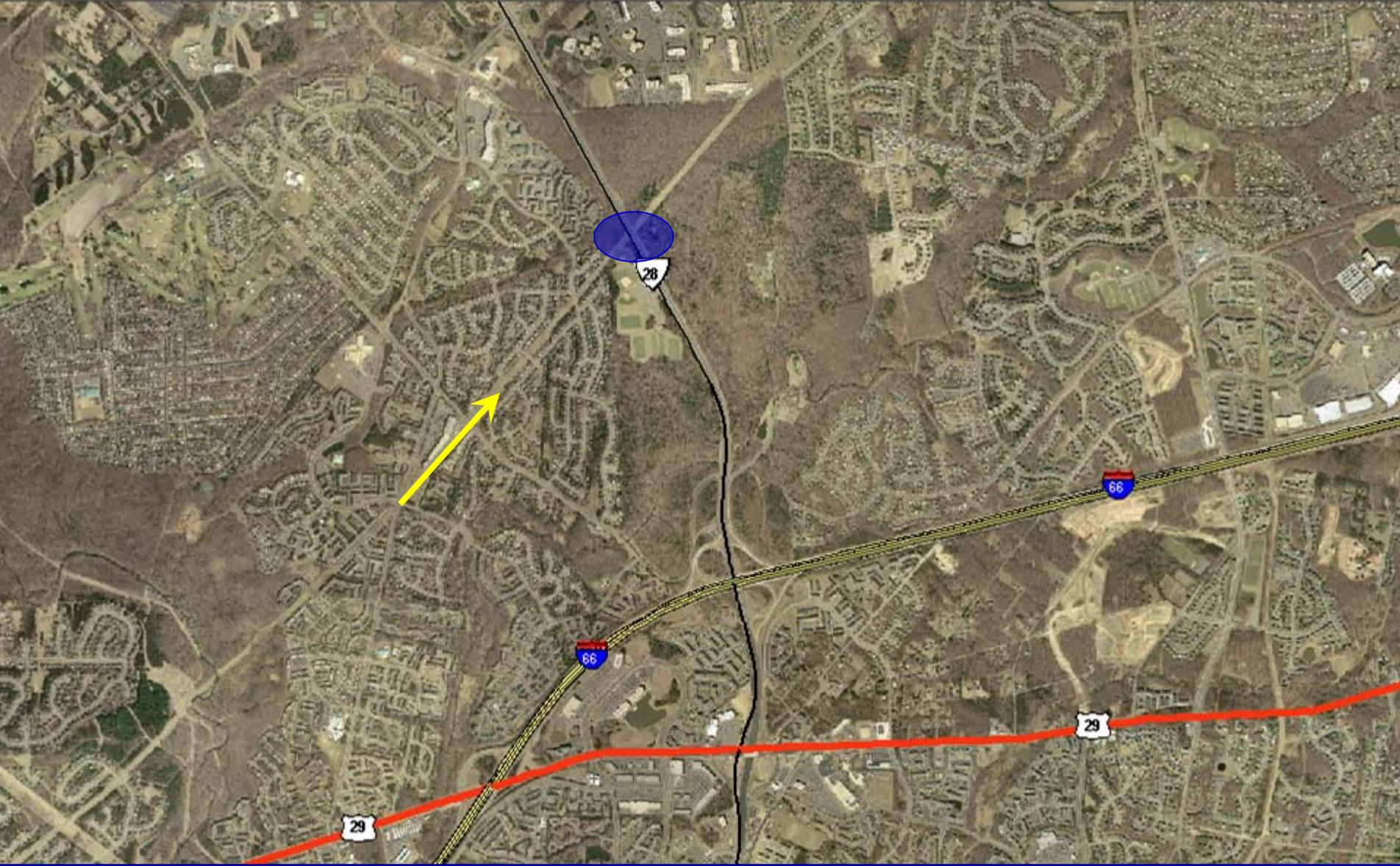
Proposed
Concept





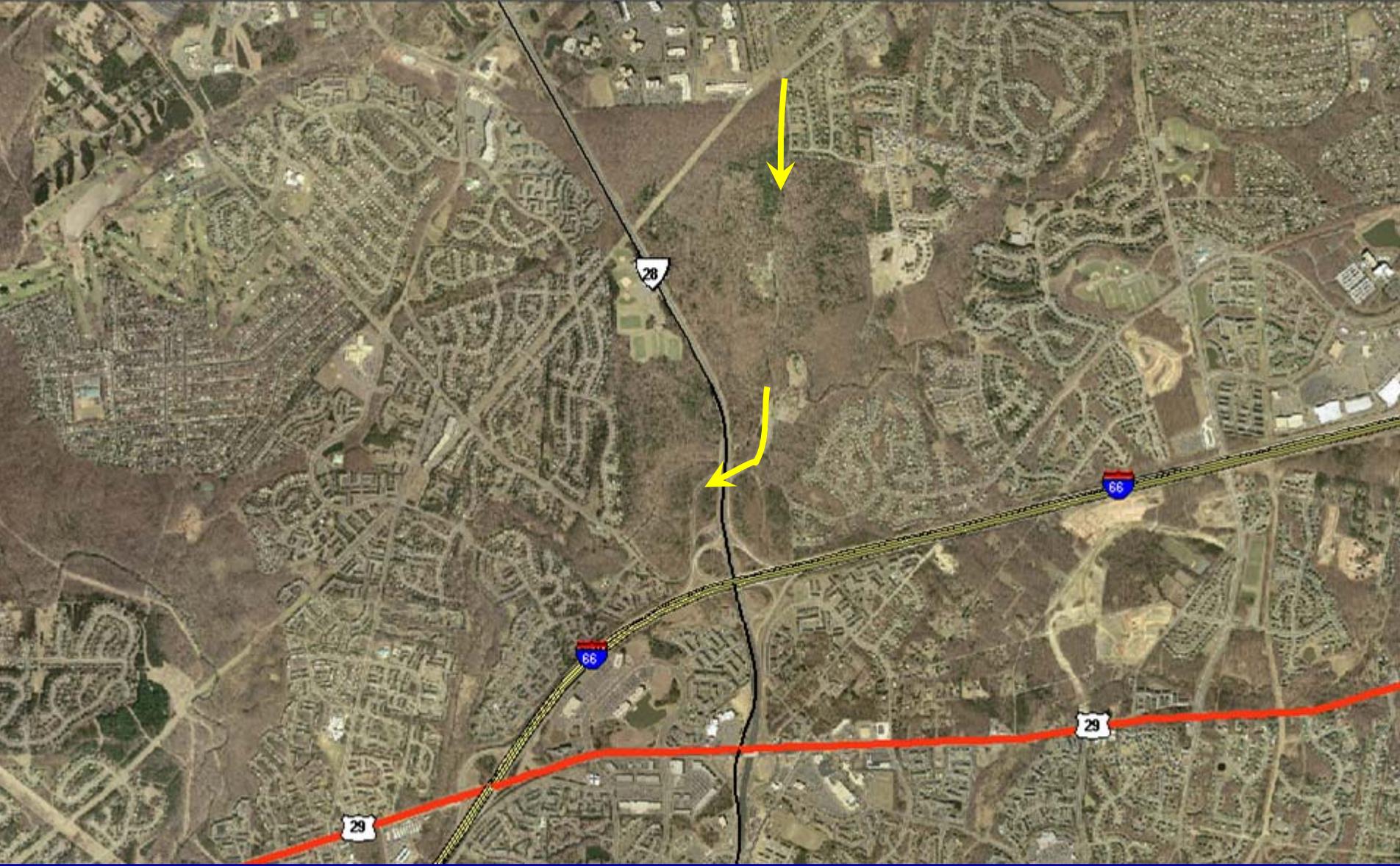
Traffic Through Braddock...





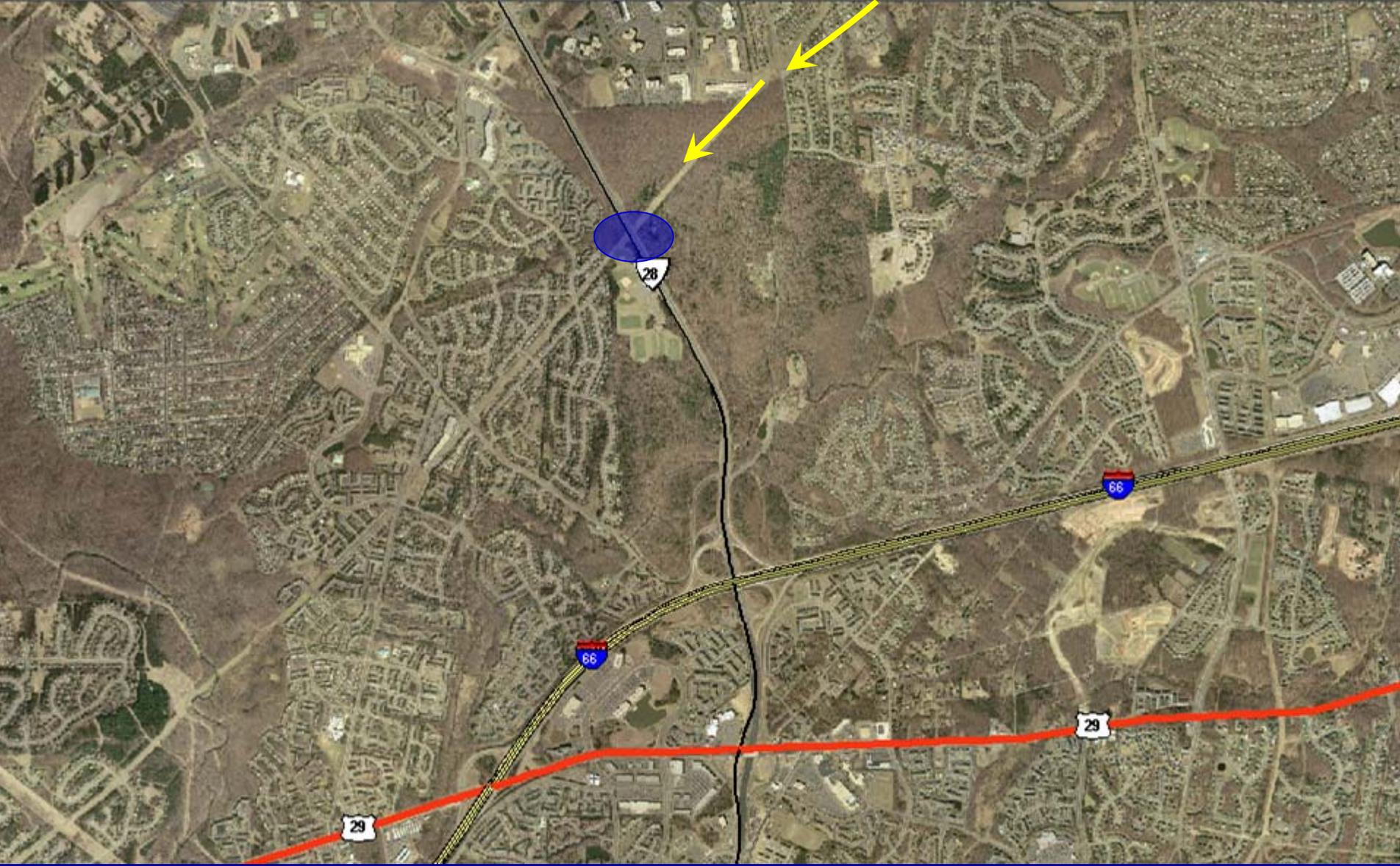
...Will Be Redirected To Westfields Interchange





Traffic Through Walney...





...Will Be Redirected To Westfields Interchange



Conclusions

- Improves Safety – Fewer Conflicts
- Reduces Congestion – Additional Green Time for Route 28
- Low-Cost and Easy to Implement

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Thanks for attending!

Please send comments to:

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