



County of Fairfax, Virginia

Huntington Area Transportation Study (HATS)

Project Update

Presented to:

***Fairfax County Board
Transportation Committee***

January 20, 2015





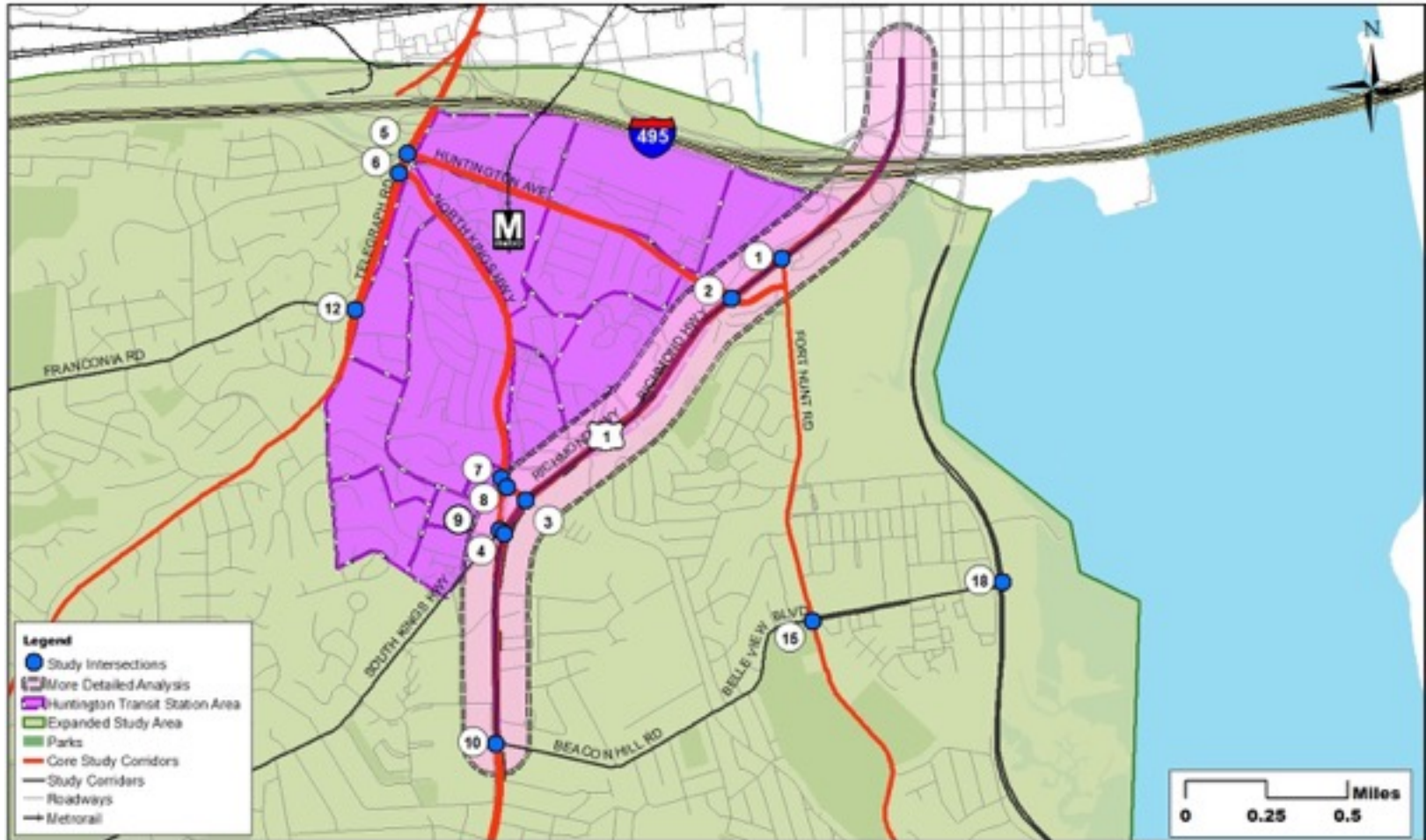
Study Purpose

- Address transportation deficiencies identified during prior comprehensive planning efforts (Huntington Club, North Gateway APRs)
- Confirm and verify existing and future (projected) transportation issues and concerns within the HATS study area
- Develop transportation improvement strategies and mitigation measures with stakeholder and BOS input
- Evaluate the effectiveness of potential transportation solutions
- Assess potential at-grade solutions, in addition to grade-separated, at Route 1/ Huntington Avenue/Fort Hunt Road
- Evaluate proposed higher land use intensity at North Gateway
- Determine recommendations and conclusions



County of Fairfax, Virginia

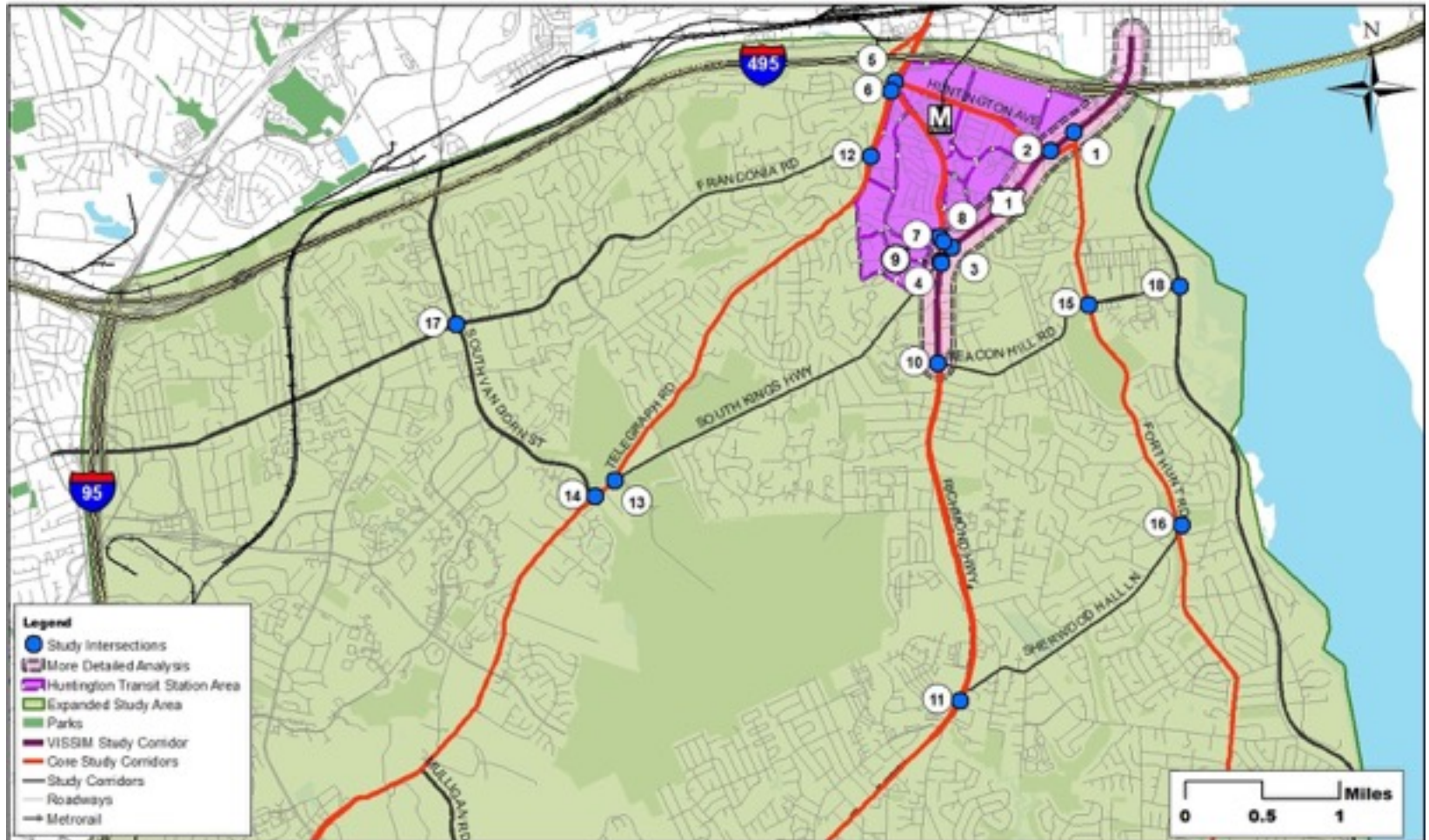
Huntington Area Transportation Study Core Study Area





County of Fairfax, Virginia

Huntington Area Transportation Study Expanded Study Area





Key Issues

- Several large-scale, high-intensity Transit Oriented Development (TOD) sites recently approved that may negatively impact the feasibility of further TOD within the Huntington Transit Station Area (TSA)
- Desire for an at-grade solution for the intersections of Route 1 and Huntington Avenue and Fort Hunt Road, rather than the grade-separated interchange currently in the Comprehensive Plan
- Proposal for higher land use intensity at the North Gateway site with a need for expedited results to respond to evolving market conditions and support on-going revitalization efforts
- Traffic issues within the Penn Daw CBC – Note that a separate effort to identify improvements along North Kings Highway is nearly complete and results will be incorporated



Study Overview

- Multimodal Existing Conditions Analysis & Assessment
- Multimodal Model Development & Future Conditions Analysis & Assessment
- Detailed Analysis of Route 1/Huntington Ave/Fort Hunt Rd Intersections
 - Evaluation of At-Grade & Grade-Separated Concepts
- Identification of Congestion Reduction Strategies and Mitigation Measures
- Evaluation of Alternative Land Use for North Gateway Site
- Conclusions & Recommendations

**** Stakeholder input will be obtained throughout study ****



Measures of Effectiveness (MOEs)

- Evaluation criteria to gauge existing and future performance
 - Average delay per vehicle by intersection and for individual approach movements
 - Queue length and storage for critical individual approach movements
 - Level of Service by intersection and for individual approach movements
 - Average delay per vehicle within the network
 - Average speed within the network
 - Average travel time within the network
 - System-wide delay

*** *AM and PM peak hours* ***



North Gateway Site

- The North Gateway Site was recently approved by the board for a 1.65 Floor Area Ratio (FAR), with further desire for a 2.0 FAR
- Located adjacent to the intersections of Route 1 and Huntington Avenue and Fort Hunt Road, it is unlikely that site can develop to its full potential if a grade-separated interchange is constructed
- Several BRAC and South County Area Plan Review (APR) nominations have been approved by the County in the Huntington core area
- Certain APRs were analyzed and approved contingent on a planned interchange at the Route 1 intersections with Huntington Avenue and Fort Hunt Road
- Citizens and community have concerns about development of an interchange
- Study will analyze at-grade and grade-separated concepts
- Study will meet VDOT traffic impact analysis requirements



Draft At-Grade & Grade-Separated Concepts

- At-grade and grade-separated concepts to be evaluated for the intersections of Route 1 at Huntington Avenue and Fort Hunt Road
- Multiple concepts under development
- None of these concepts have been tested
- Staff is not making a recommendation at this time
- Two at-grade and two grade-separated concepts will be selected for more detailed analysis
- Looking for initial feedback on elements associated with current set of draft concepts

At-Grade Option A: Route 1 Left Turn Movements Prohibited






No left/right turns Closed roadway

Existing traffic signal

At-Grade Option B: “Superstreet” with Side Street Left Turn & Through Movements Prohibited



-  New traffic signal
-  Existing traffic signal
-  Closed roadway

Right turn on red prohibitions are recommended during peak hours to reduce the speed differentials on Route 1, unless add lanes can be used.

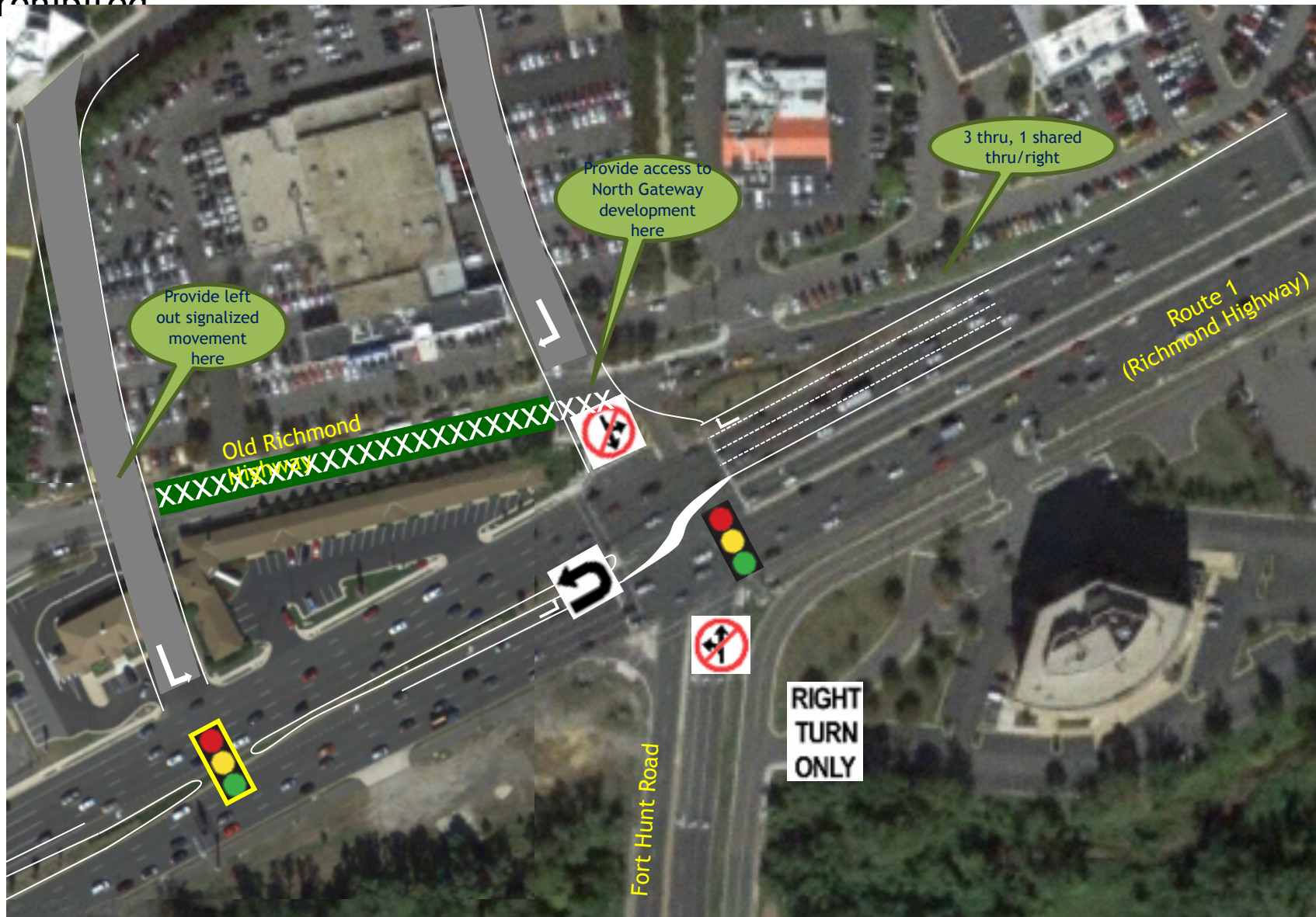
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- Closed roadway

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At-Grade Option B: “Superstreet” with Side Street Left Turn & Through Movements Prohibited



 New traffic signal
 Existing traffic signal

 Closed roadway

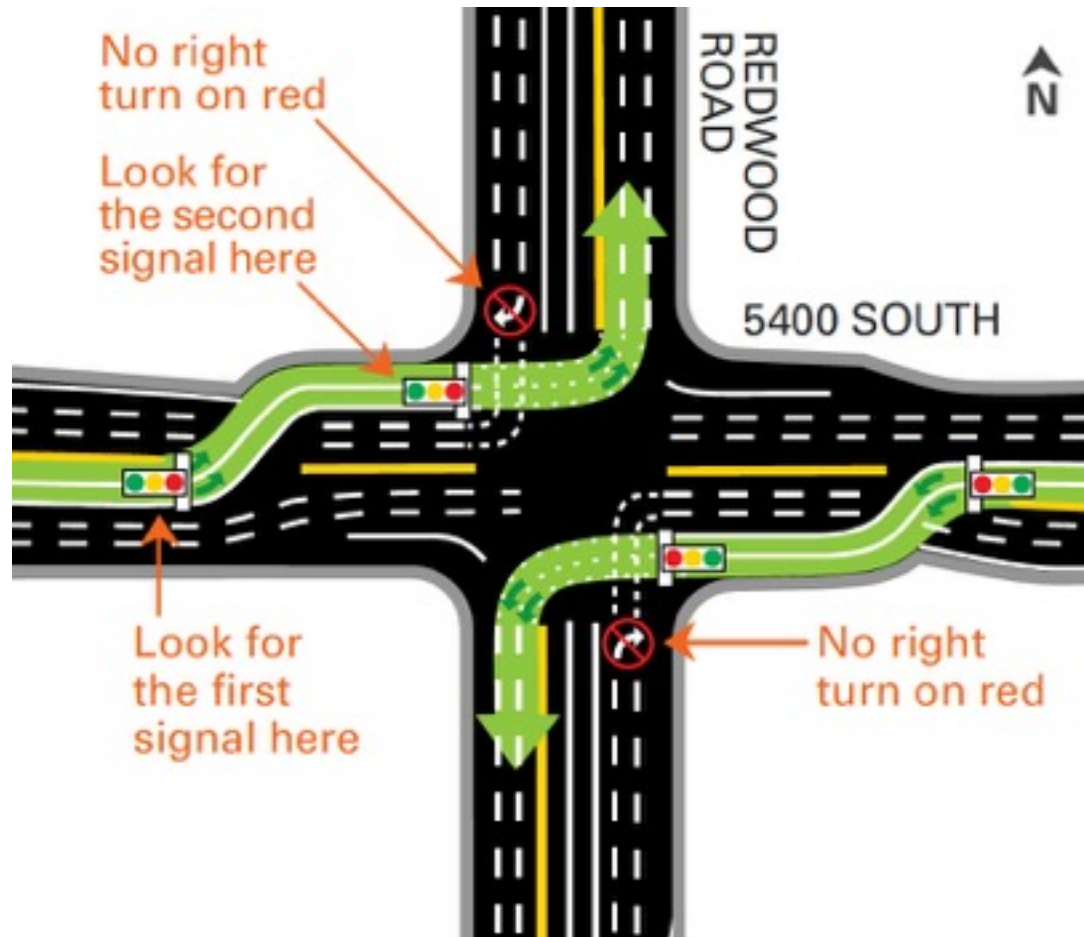
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At-Grade Hybrid (A-B) Option: Route 1 to Fort Hunt Left Turns Shifted to Huntington



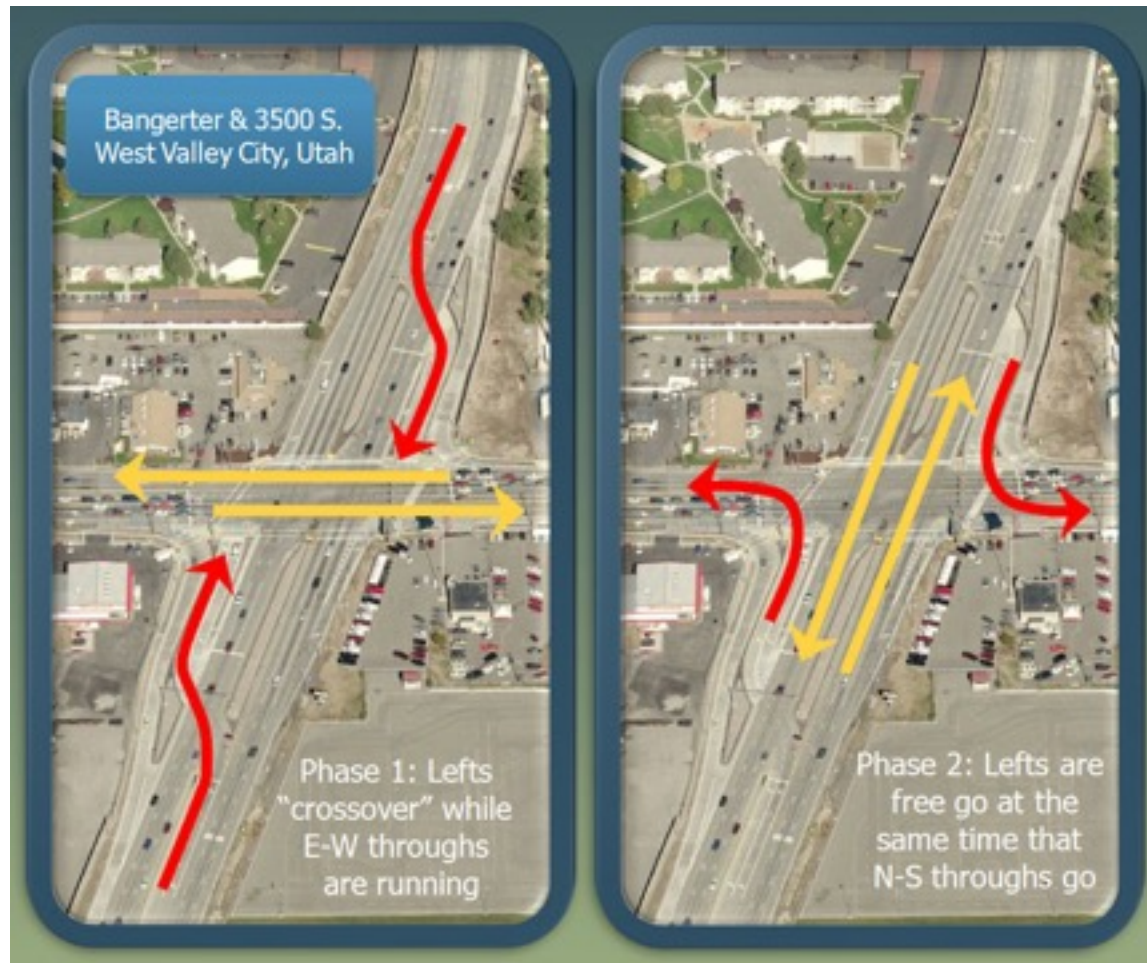


Displaced Left Turn (DLT) Intersections





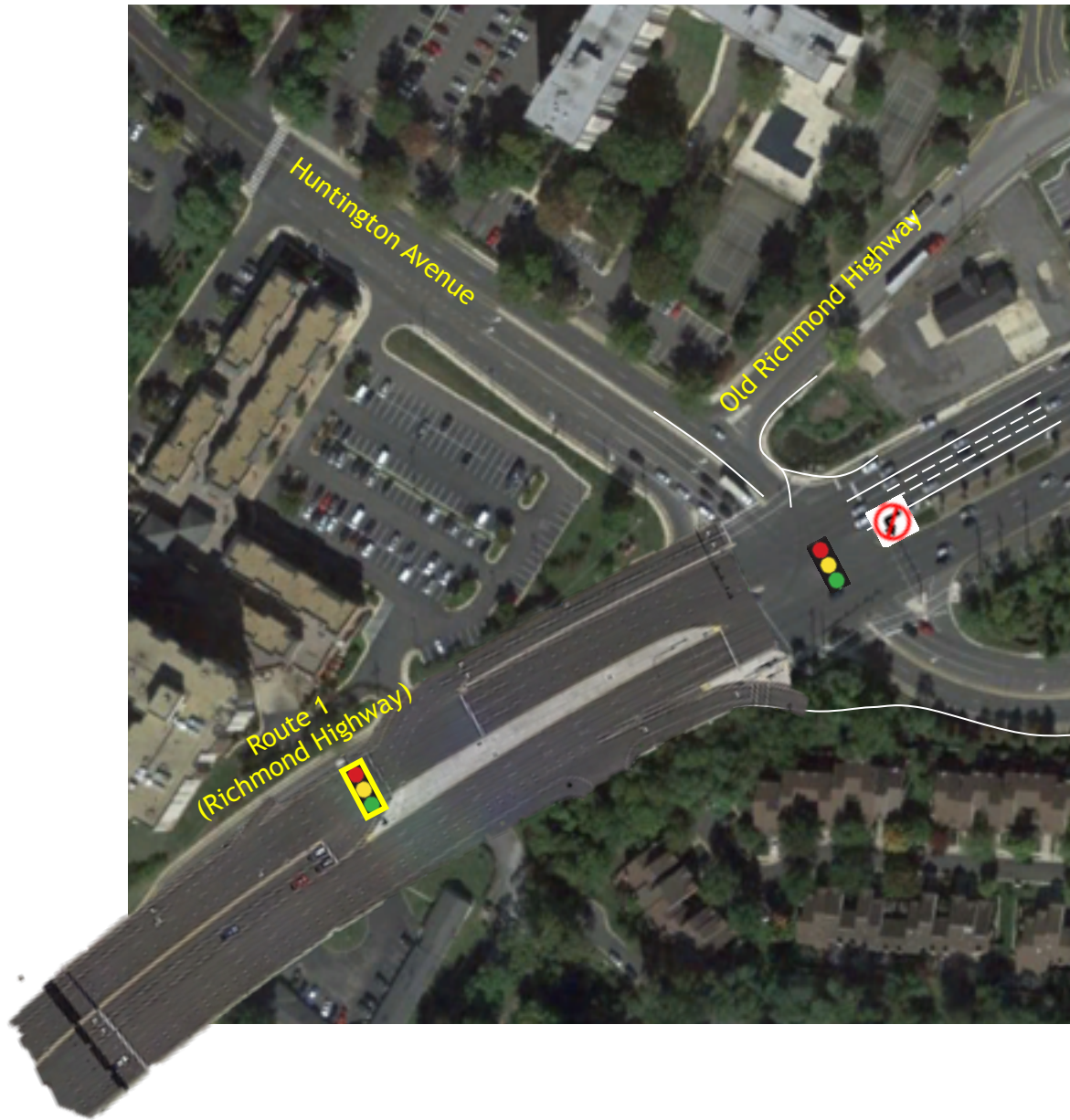
Displaced Left Turn (DLT) Intersections



At-Grade Option C: Partial Displaced Left Turn Intersection



At-Grade Option C: Partial Displaced Left Turn Intersection



New traffic signal



Existing traffic

At-Grade Option C: Partial Displaced Left Turn Intersection



 New traffic signal



Existing traffic signal

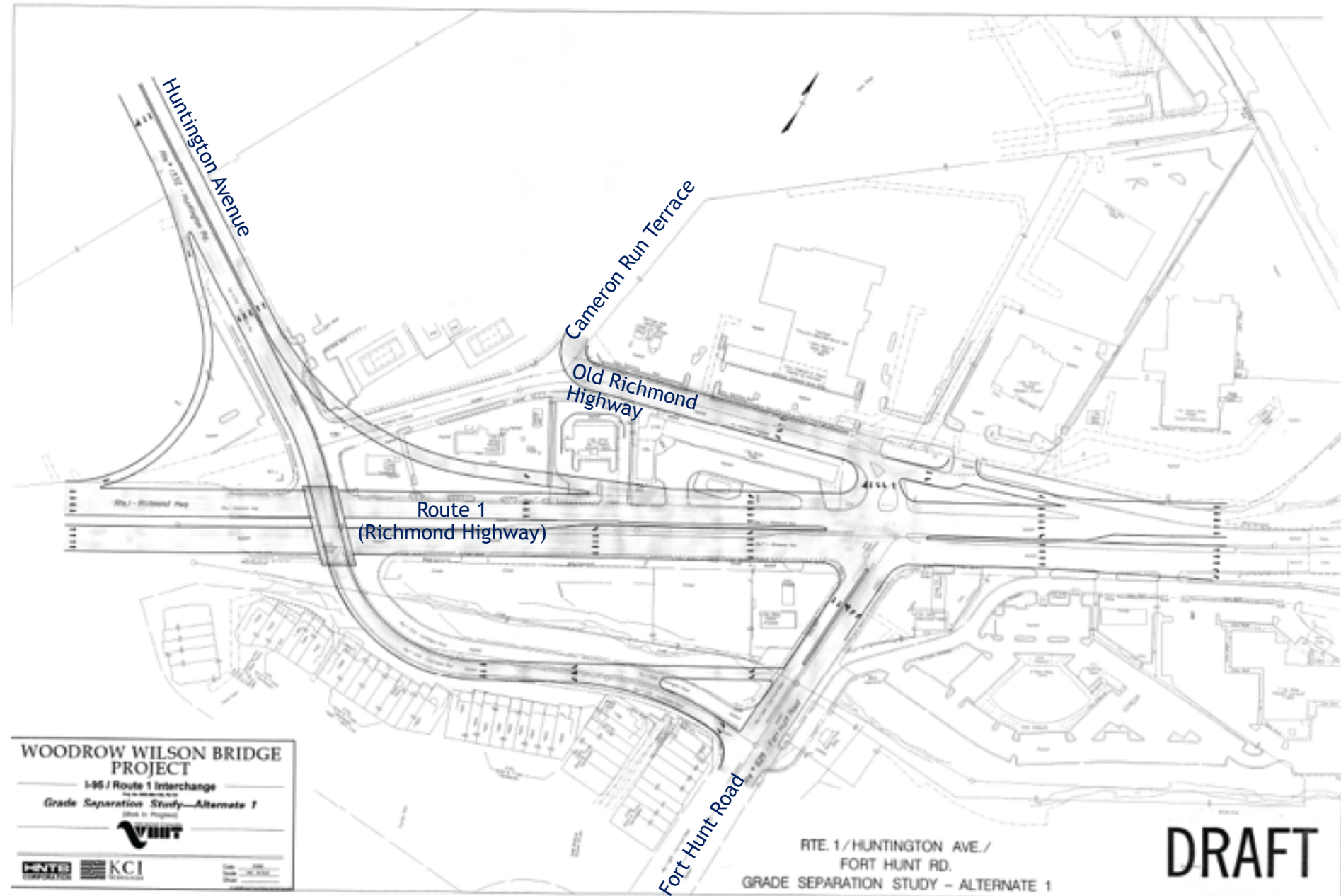


No left turn

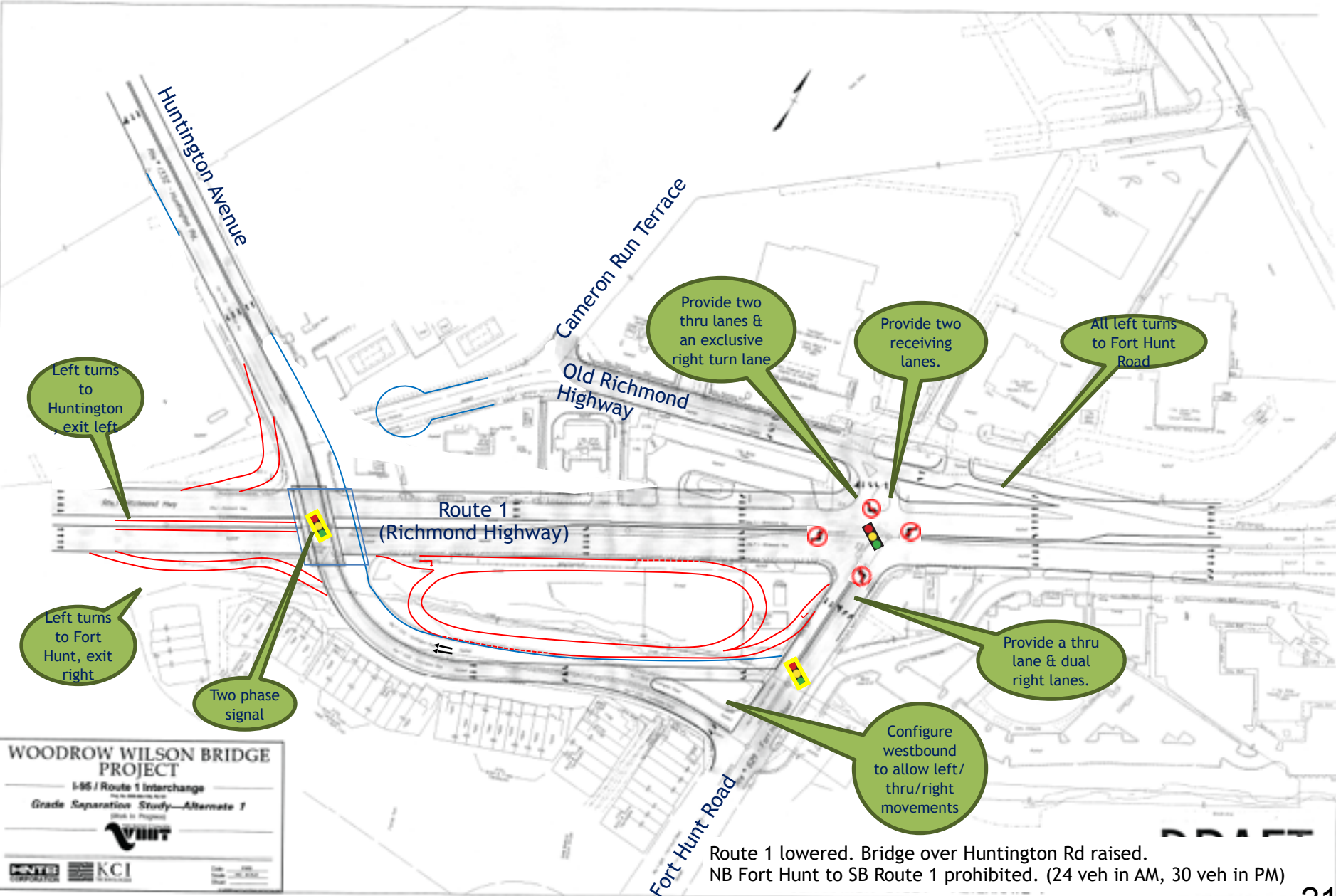


Optional no left turn

Grade-Separated Option D: Woodrow Wilson Bridge Project - Alternate 1

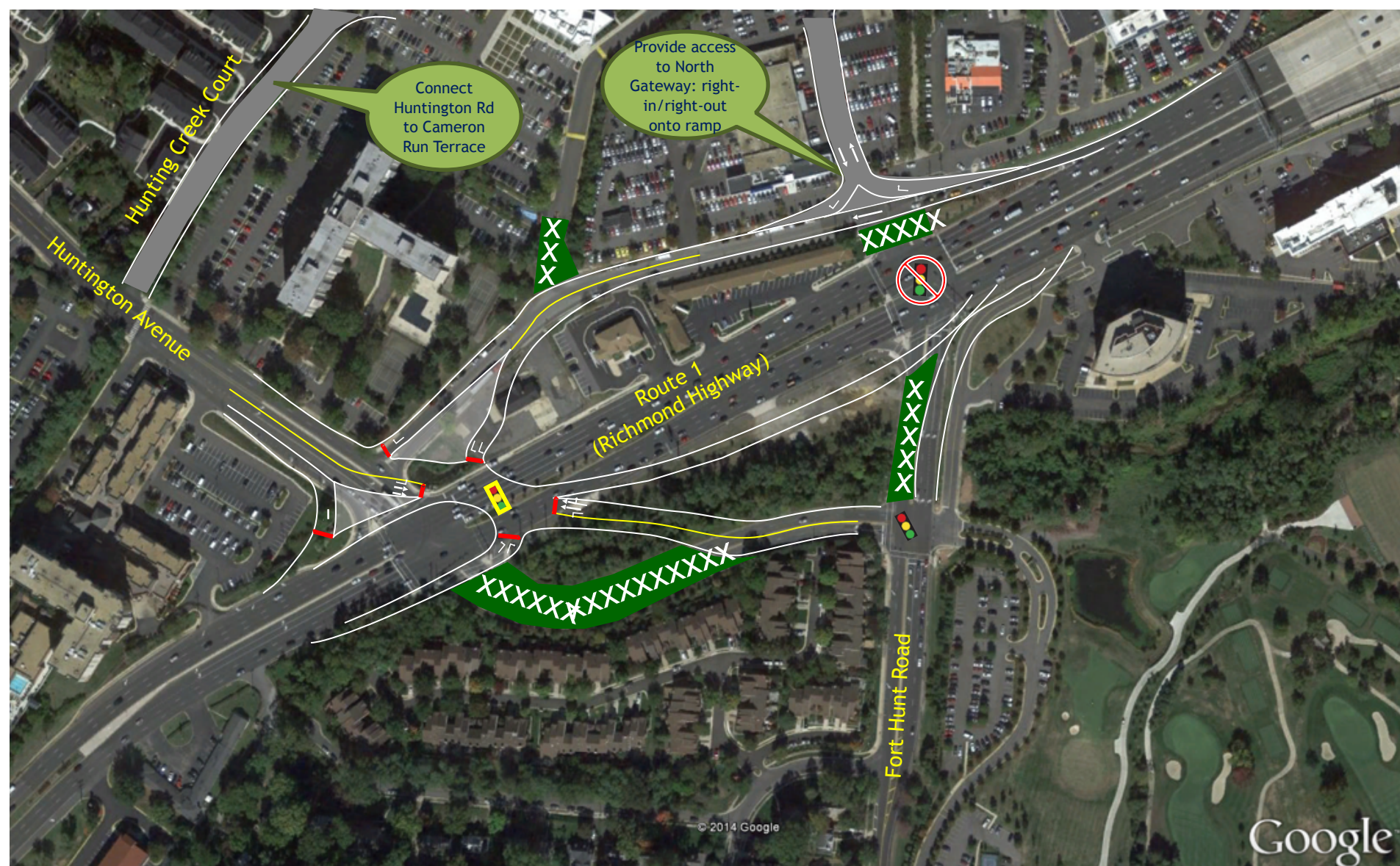


Grade-Separated Option E: Huntington Avenue Interchange



Route 1 lowered. Bridge over Huntington Rd raised.
NB Fort Hunt to SB Route 1 prohibited. (24 veh in AM, 30 veh in PM)

Grade-Separated Option F: Single Point Urban Interchange (SPUI)



 New traffic signal



Existing traffic signal  Closed roadway

Route 1 lowered. SPUI raised. Through movements on Route 1 are uncontrolled.



Project Schedule – 2014/2015

Jun-Sep 2014

- Existing Conditions Assessment (Complete)
- Travel Demand Model Development (Complete)

Oct-Feb 2014/15

- Model Assessment (Complete)
- Detailed Route 1/Huntington/Fort Hunt Analysis

Feb-May 2015

- Identification & Evaluation of Mitigation Measures



Questions / Comments

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