

Preliminary Integrated Program

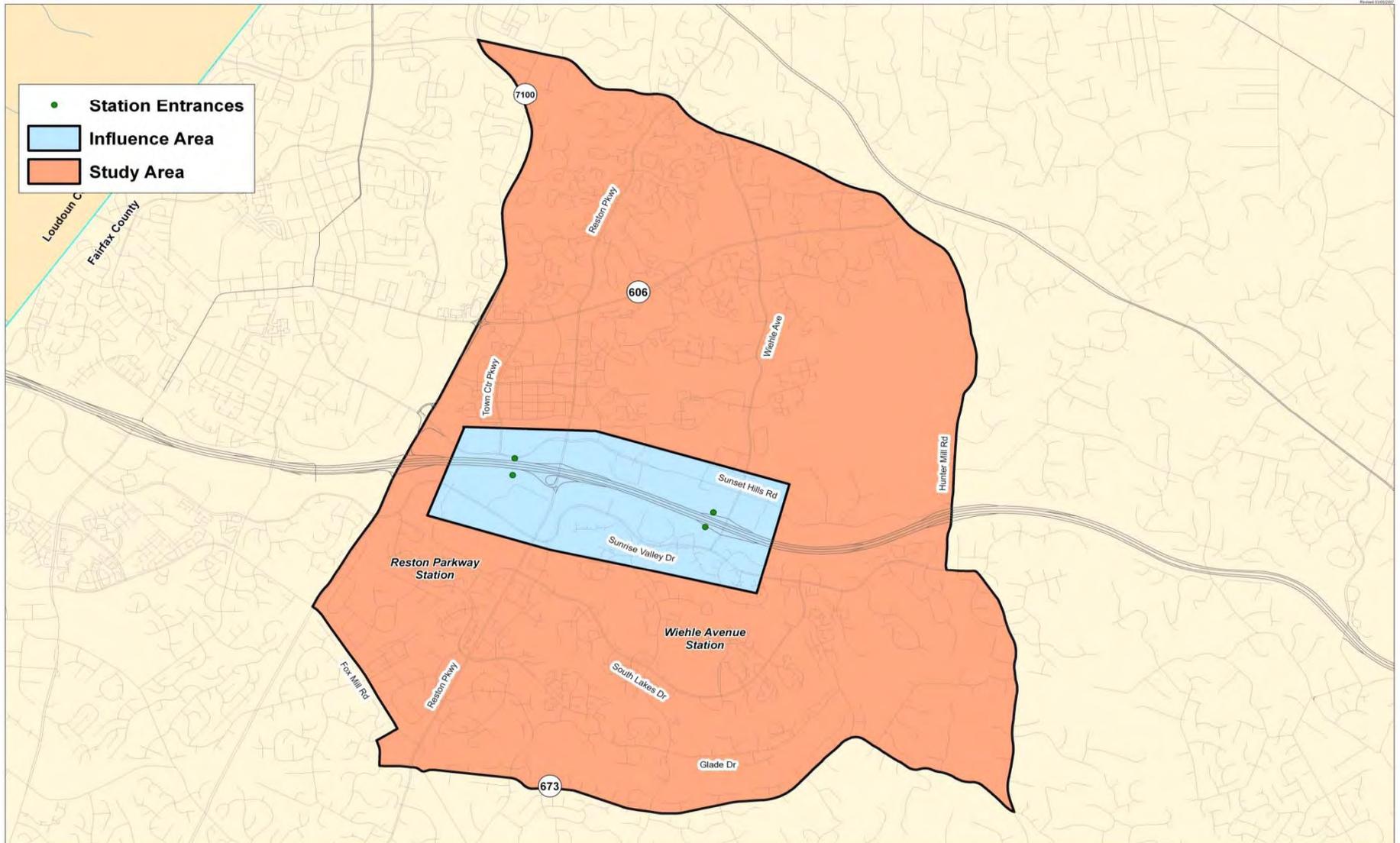
Reston Metrorail Access
Group

January 8, 2008

DRAFT ONLY



Study Area and Influence Area Overview

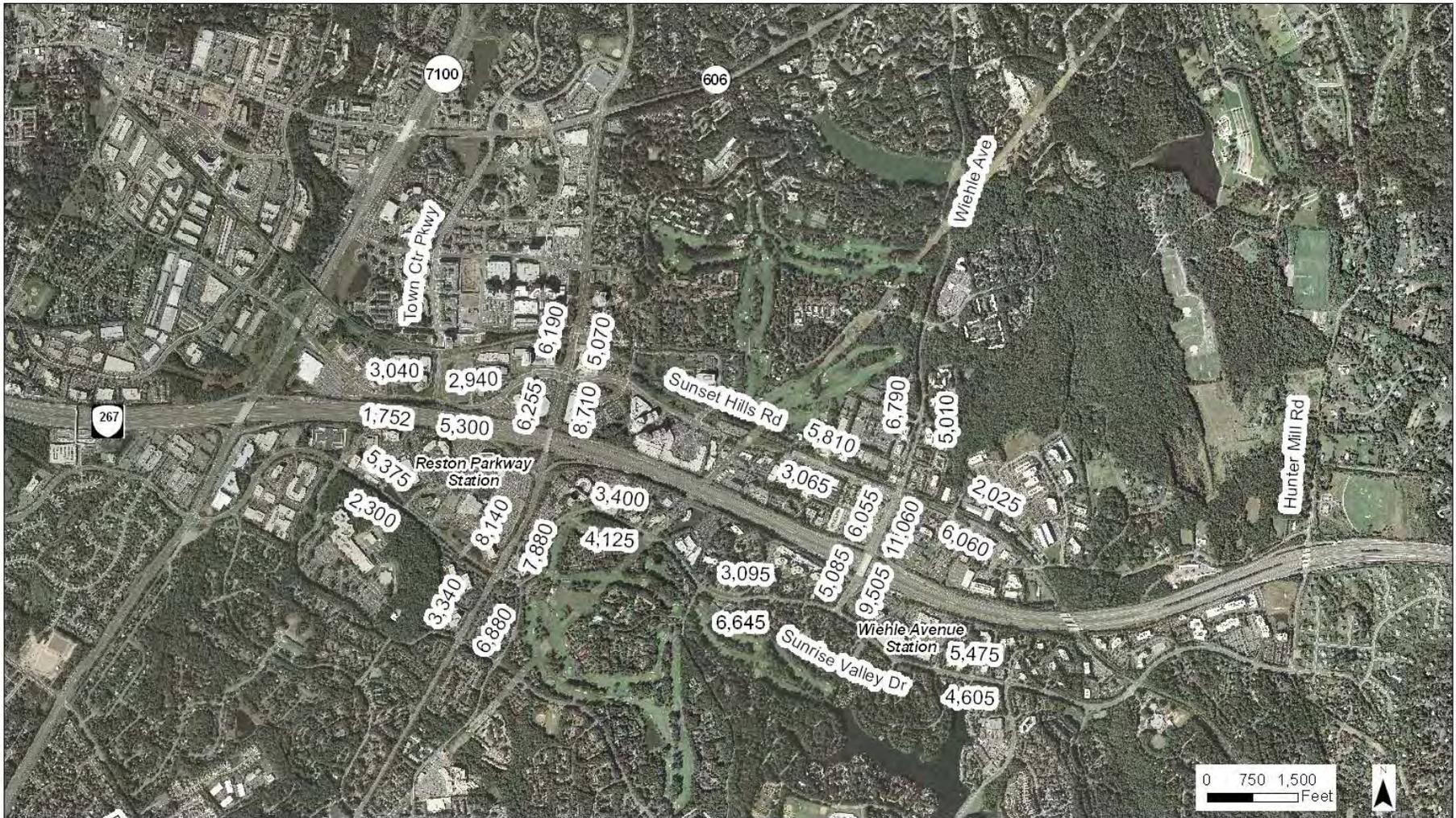




Background

- 2030 Target Year – Metrorail to Dulles Phases I and II in Place
- MWCOCG Round 7 Land Use
- Fairfax County Travel Demand Model
- VISSIM Simulation Analysis
- Record of Decision (ROD) Roadway Actions Assumed to be in Place for 2030 Baseline Analysis

2030 AM 3-hour Peak Period Volumes

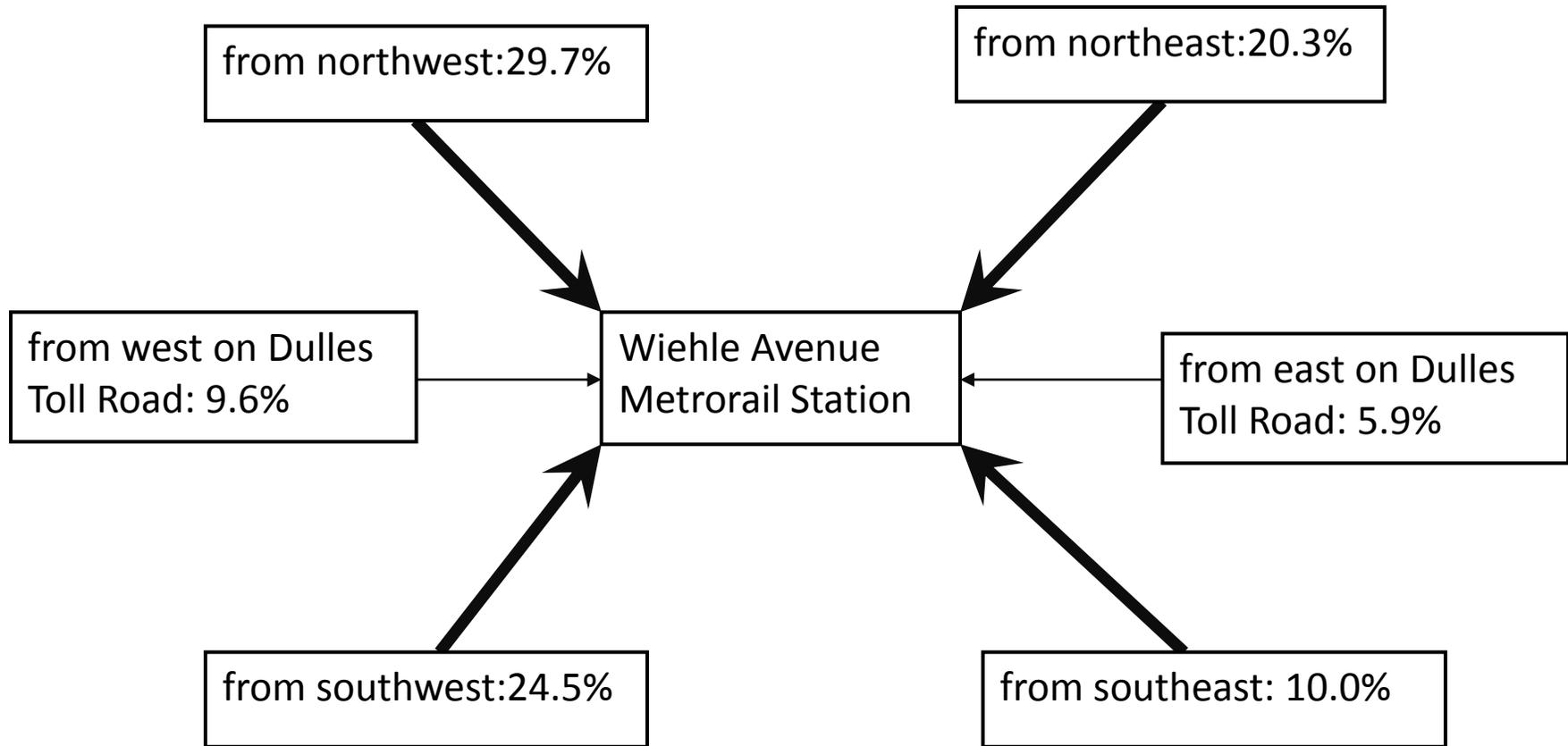


2030 PM 3-hour Peak Period Volumes





Wiehle Avenue Station Trips: 3-hour AM Peak Period





Results of Traffic Operations Analysis

- Roadway Actions from Record of Decision- Baseline Alternative
 - AM Peak Period: 60% of the demand served
 - PM Peak Period: 30% of the demand served
- With Additional Roadway Actions- “Robust” Alternative
 - AM Peak Period: 67% of the demand served
 - PM Peak Period: 43% of the demand served



Results of Traffic Operations Analysis

- Congestion expected for future conditions, even under the “Robust” Alternative
 - LOS F at intersections, peak period spreading likely to occur
 - Growth in Traffic and Increased Pedestrian Travel in Station Areas Strains Intersection Operations
 - Traffic Congestion Affects Bus Operations
 - Need to Balance Vehicular vs. Pedestrian/Bicycle/Bus Demands



Roadway Projects

- Record of Decision adopted roadway action projects
 - Additional turn lanes
 - New Lanes
- Analysis identified additional action items needed



Roadway Projects: Baseline Alternative



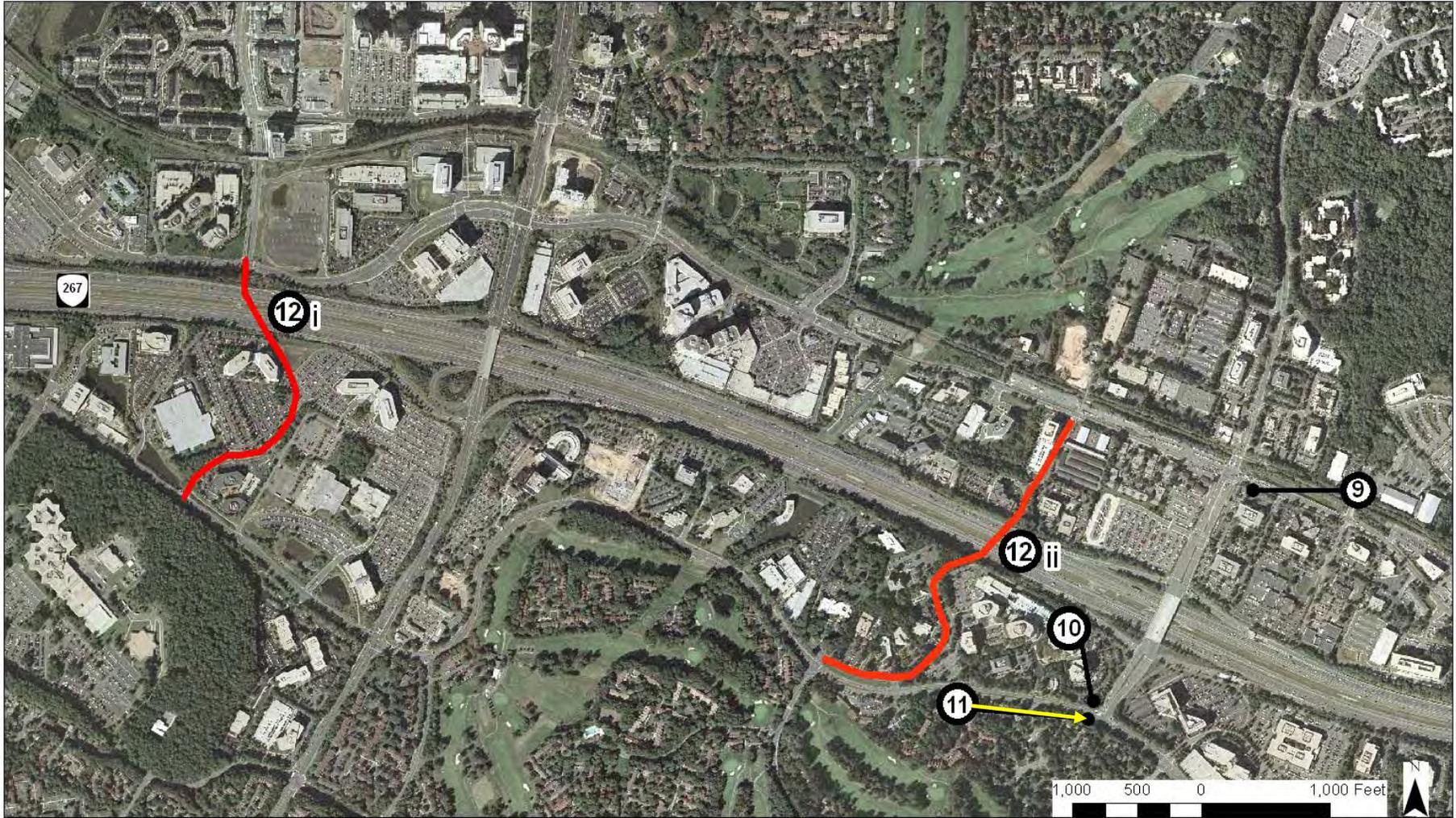


Roadway Projects: Baseline Alternative

1. New signal and turn lanes on Sunset Hills Road for access into the proposed Reston Metrorail station.
2. New left turn lane for westbound left turning movement at the intersection of Sunset Hills Road/Isaac Newton Square, this would replace the shared left-through lane by providing a dedicated turn lane.
3. Add a second left turn lane for northbound traffic at the intersection of Wiehle Avenue and Metro Access (between Sunset Hills Road and the Dulles Toll Road) and provide a second inbound lane.
4. Add an additional left turn lane on the eastbound Dulles Toll Road ramp at Wiehle Avenue.
5. Add an additional right turn lane for the eastbound Sunset Hills Road leg at Wiehle Avenue.
6. Adding a second right turn lane for the westbound Sunrise Valley Drive at Wiehle Avenue leg.
7. Add northbound through lane for the Reston Parkway at Sunrise Valley Drive, continuing the lane to the ramp for eastbound Dulles Toll Road.
8. Improve the right turn lane for the southbound Reston Parkway leg at Sunrise Valley Drive.



Roadway Projects: “Robust” Alternative





Roadway Projects: “Robust” Alternative

9. Adding a second right turn lane for the northbound Wiehle Avenue at Sunset Hills Road.
10. Adding a second right turn lane for the southbound Wiehle Avenue leg at Sunrise Valley Drive.
11. Add an additional left turn lane for the eastbound Sunrise Valley Drive leg at Wiehle Avenue.
12. Providing two new connections over the Dulles Toll Road to provide new links to connect the major east-west roadways: Sunset Hills Road and Sunrise Valley Drive:
 - i. First connection being between Town Center Parkway and Edmund Halley Drive.
 - ii. Second connection being between Soapstone Drive and Isaac Newton Square.



Roadway Projects

- “Robust” Alternative projects
 - Intersection improvements increase turning capacity at major intersections
 - Connectors provide alternative routes to avoid Reston Pkwy and Wiehle Avenue

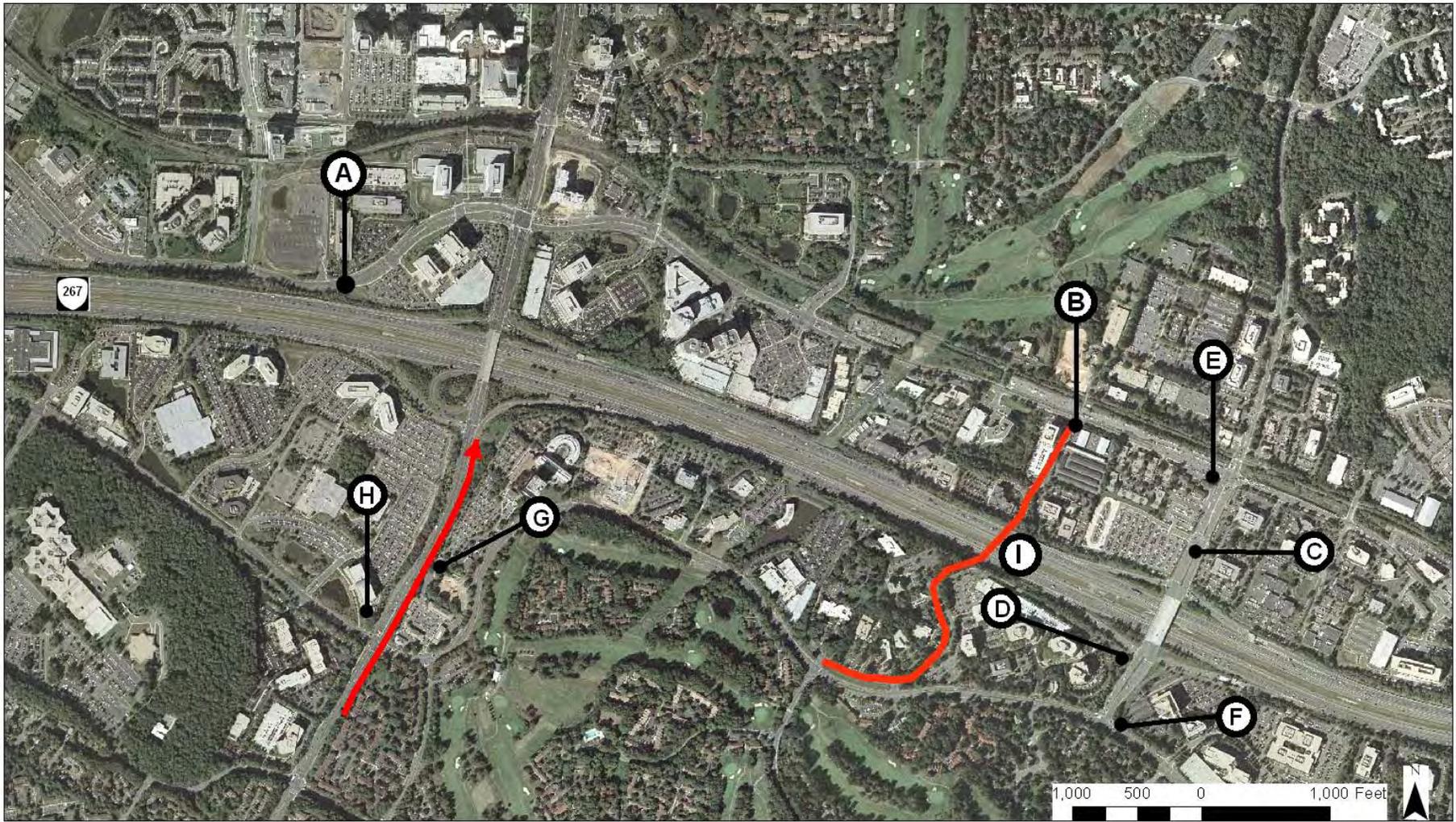


Roadway Projects

- “Robust” Alternative projects issues
 - Increases crossing distance for pedestrians at intersections where additional turn bays were added, eliminates potential for bus-only lanes, and provides little capacity increase
 - Additional turn lanes not recommended
 - Town Center Parkway Connector could have negative impacts on pedestrian/bicycle users due to adjustment of grades
 - Town Center Connector not recommended



Roadway Projects: Recommended Alternative





Roadway Projects: Recommended Alternative

- A. New signal and turn lanes on Sunset Hills Road for access into the proposed Reston Metrorail station
- B. New left turn lane for westbound left turning movement at the intersection of Sunset Hills Road/Isaac Newton Square, this would replace the shared left-through lane by providing a dedicated turn lane.
- C. Add a second left turn lane for northbound traffic at the intersection of Wiehle Avenue and Metro Access (between Sunset Hills Road and the Dulles Toll Road) and provide a second inbound lane
- D. Add an additional left turn lane on the eastbound Dulles Toll Road ramp at Wiehle Avenue
- E. Improve the existing right turn lane for the eastbound Sunset Hill Road leg at Wiehle Avenue
- F. Improve the existing right turn lane for the westbound Sunrise Valley Drive at Wiehle Avenue leg
- G. Add northbound through lane for the Reston Parkway at Sunrise Valley Drive, continuing the lane to the ramp for eastbound Dulles Toll Road
- H. Improve the right turn lane for the southbound Reston Parkway leg at Sunrise Valley Drive
- I. *Providing a new connection over the Dulles Toll Road to connect the major east-west roadways: Sunset Hills Road and Sunrise Valley Drive. The connection would be between Soapstone Drive and Isaac Newton Square.*



Other Desirable Actions

- Local Street Connectors:
 - Interconnect the NE and SE parcels at Wiehle Avenue / Sunset Hills Road
 - Improves mobility of all modes
 - Reduces traffic on major roadways
- Sunset Hills Road widening
- Improved Access Management as area redevelops – consolidate driveways/access
- Interparcel Access
- Travel Demand Management Program



Traffic Analysis Findings

- Roadway actions to implement
 - Selected actions from ROD
 - Soapstone Connector
 - Inter-parcel connectors as area redevelops
 - Widen roadways for improved bus service

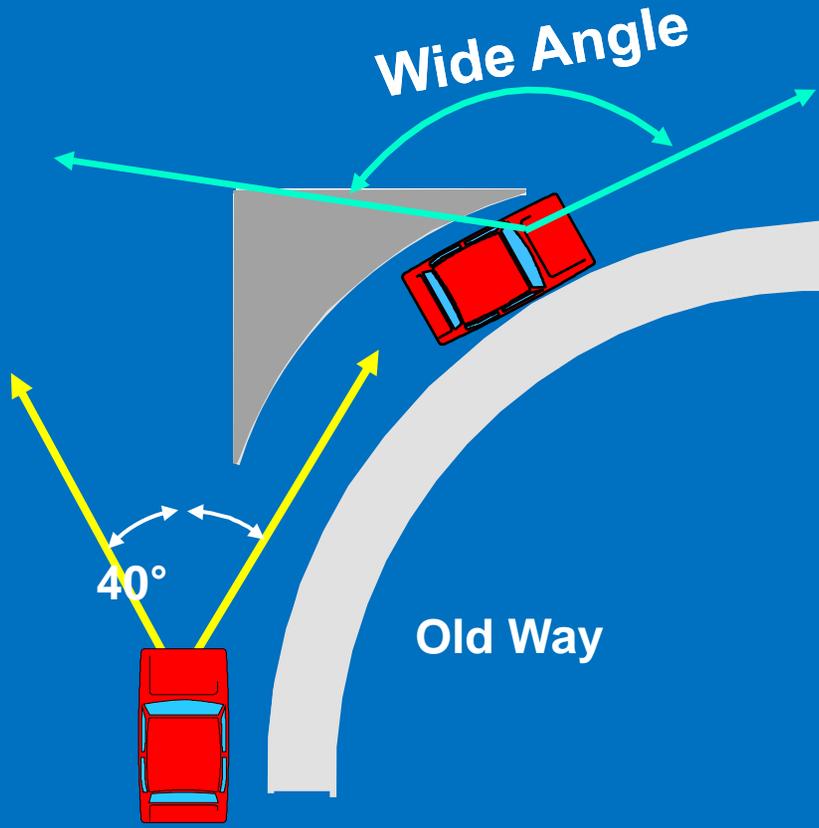
Recommended Policies- Intersections

- Upgrade curb ramps
- Install pedestrian countdown signals at all signalized intersections within ½ mile
- Apply high-visibility crosswalk markings at all signalized intersections within ½ mile
- Reduce curb radii
- Install median refuges
- Use LPI on all minor street pedestrian crossings

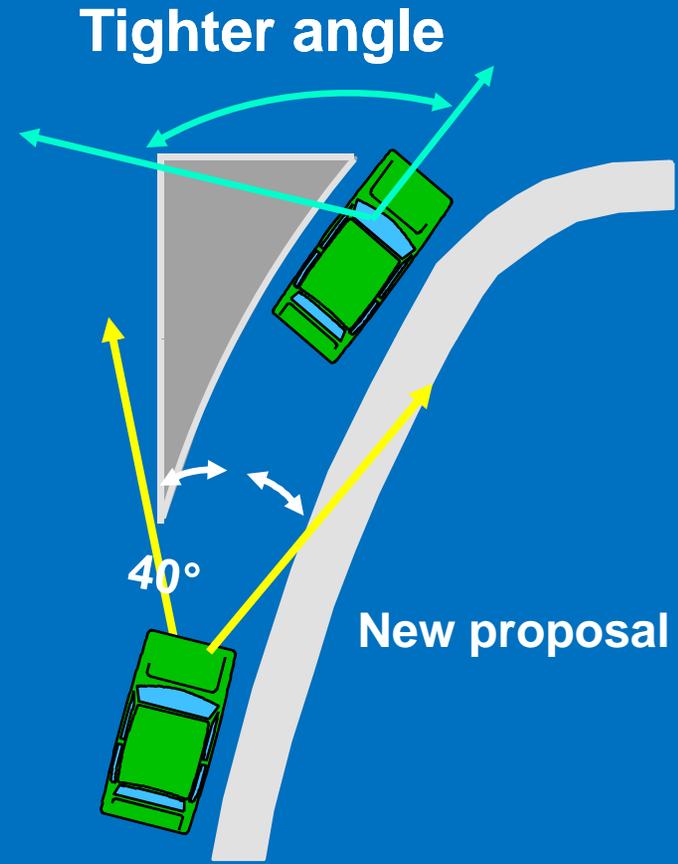




Right-Turn Slip Lane: Design for pedestrians



High speed, head turner =
low visibility of pedestrians



Slow speed, good angle =
good visibility of pedestrians

Recommended Policies- Streets

- Sidewalks on both sides of streets
- Sidewalk width min. of 6 feet within 1 mile of station entrance
- Separate sidewalks from roadway with landscaped buffer preferably 4 feet wide
- Marked crosswalk within 250 feet of all bus stops





Bicycle Facility Improvements





Basic Principles

- Increase connectivity of existing paths
- Provide more direct access
- Ensure vehicle speeds are compatible with bicycle travel



Bicycle Improvements



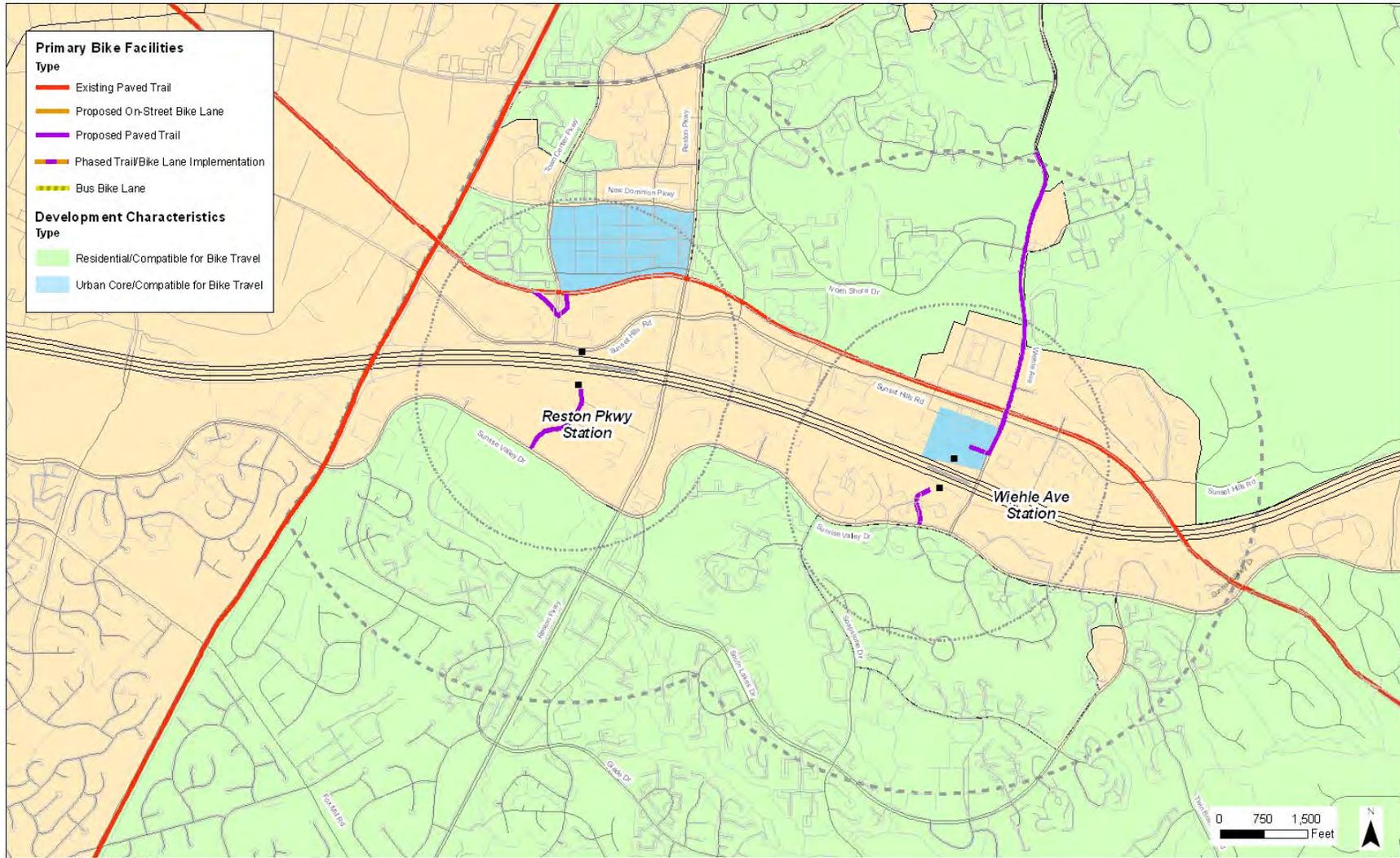


Bicycle Improvements



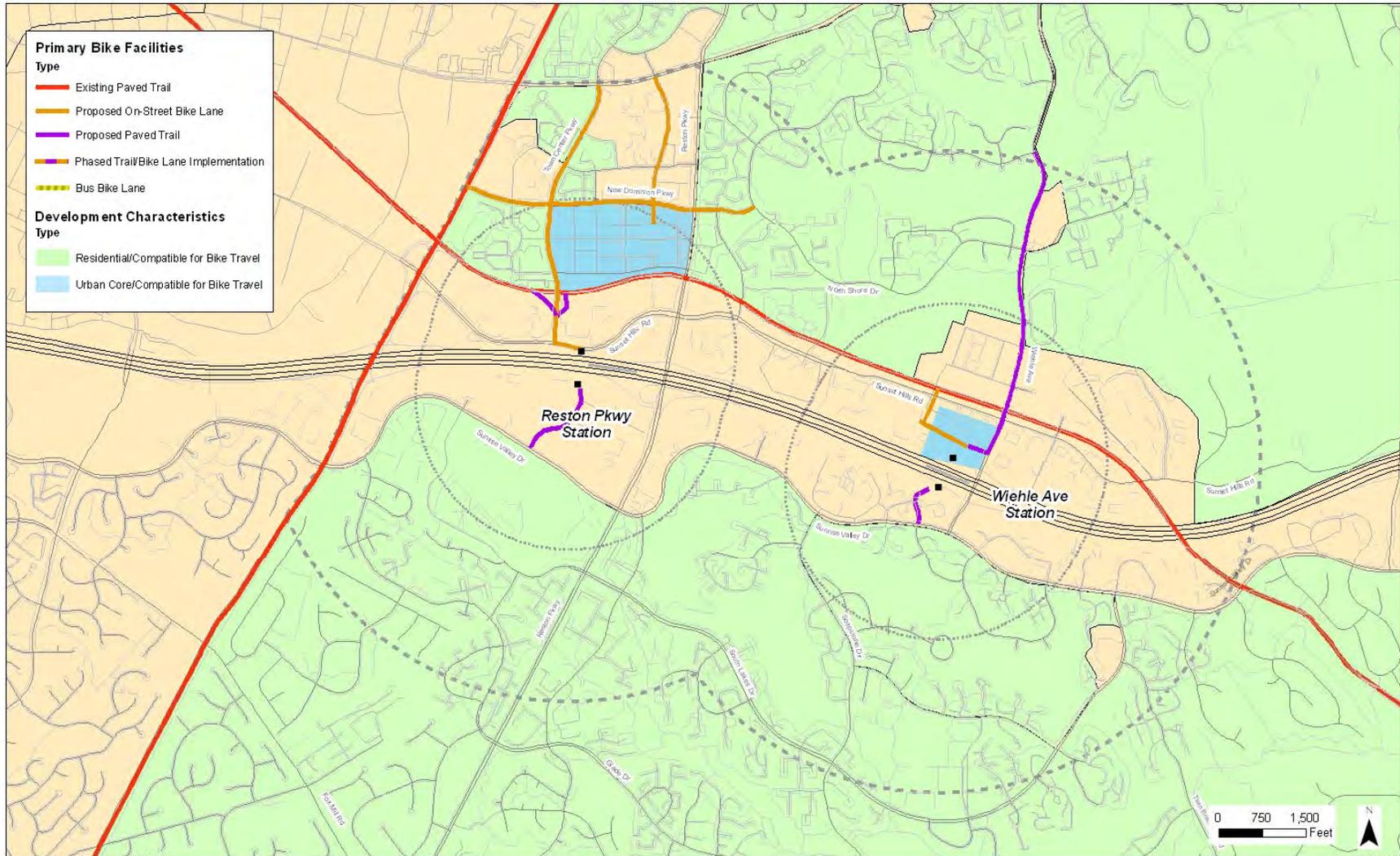


Bicycle Improvements





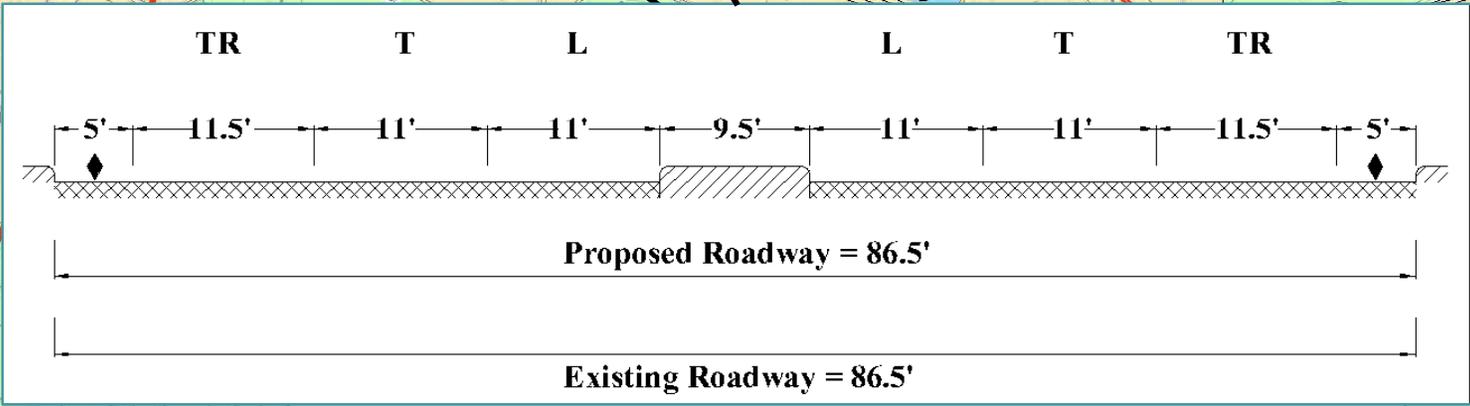
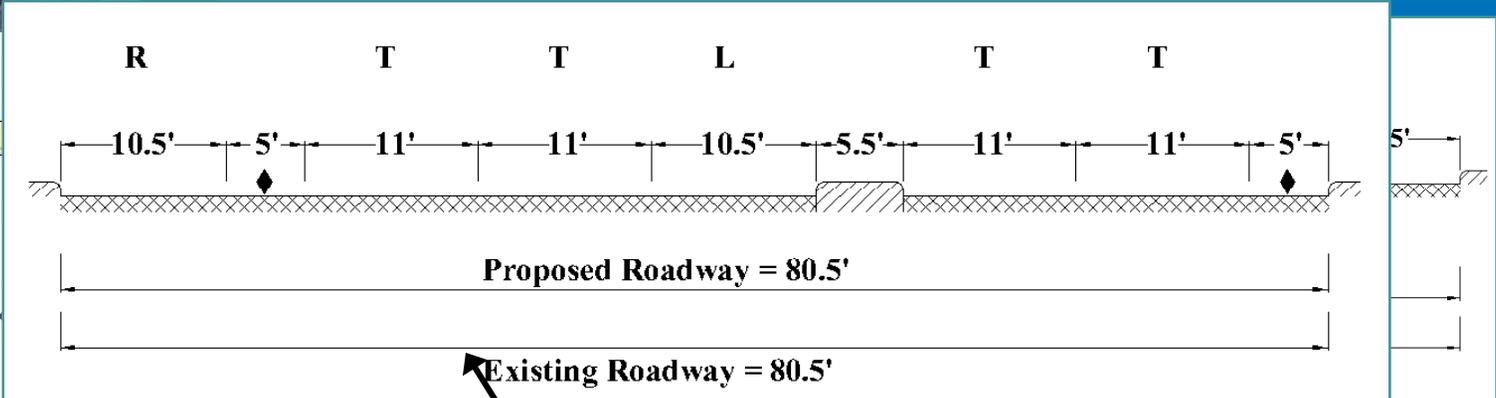
Bicycle Improvements



Bicycle Improvements

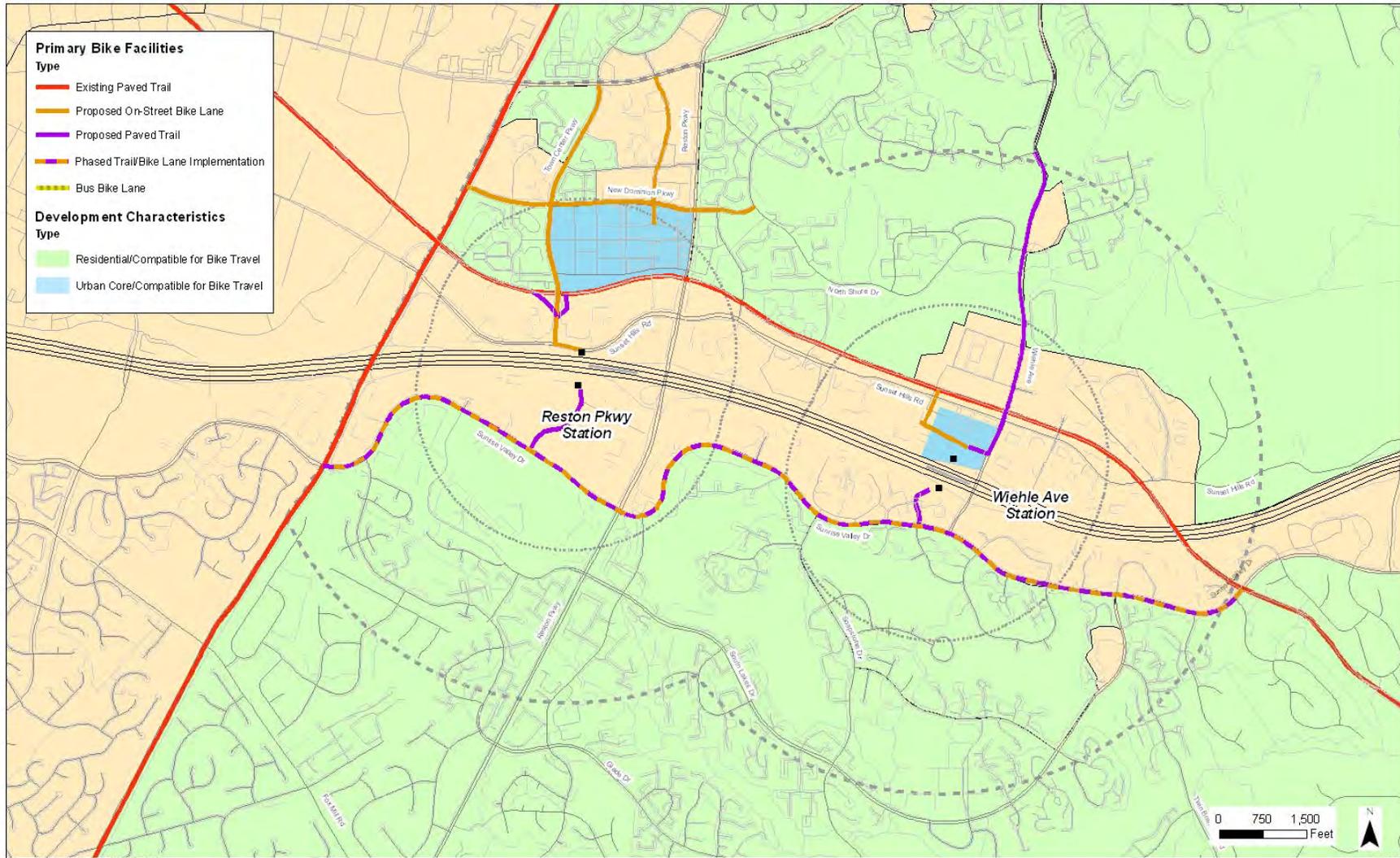


- Primary Bike Facilities Type**
- Existing Paved Trail
 - Proposed On-Street Bike Lane
 - Proposed Paved Trail
 - Phased Trail/Bike Lane Implementation
 - Bus Bike Lane
- Development Characteristics Type**
- Residential/Compatible for Bike Travel
 - Urban Core/Compatible for Bike Travel



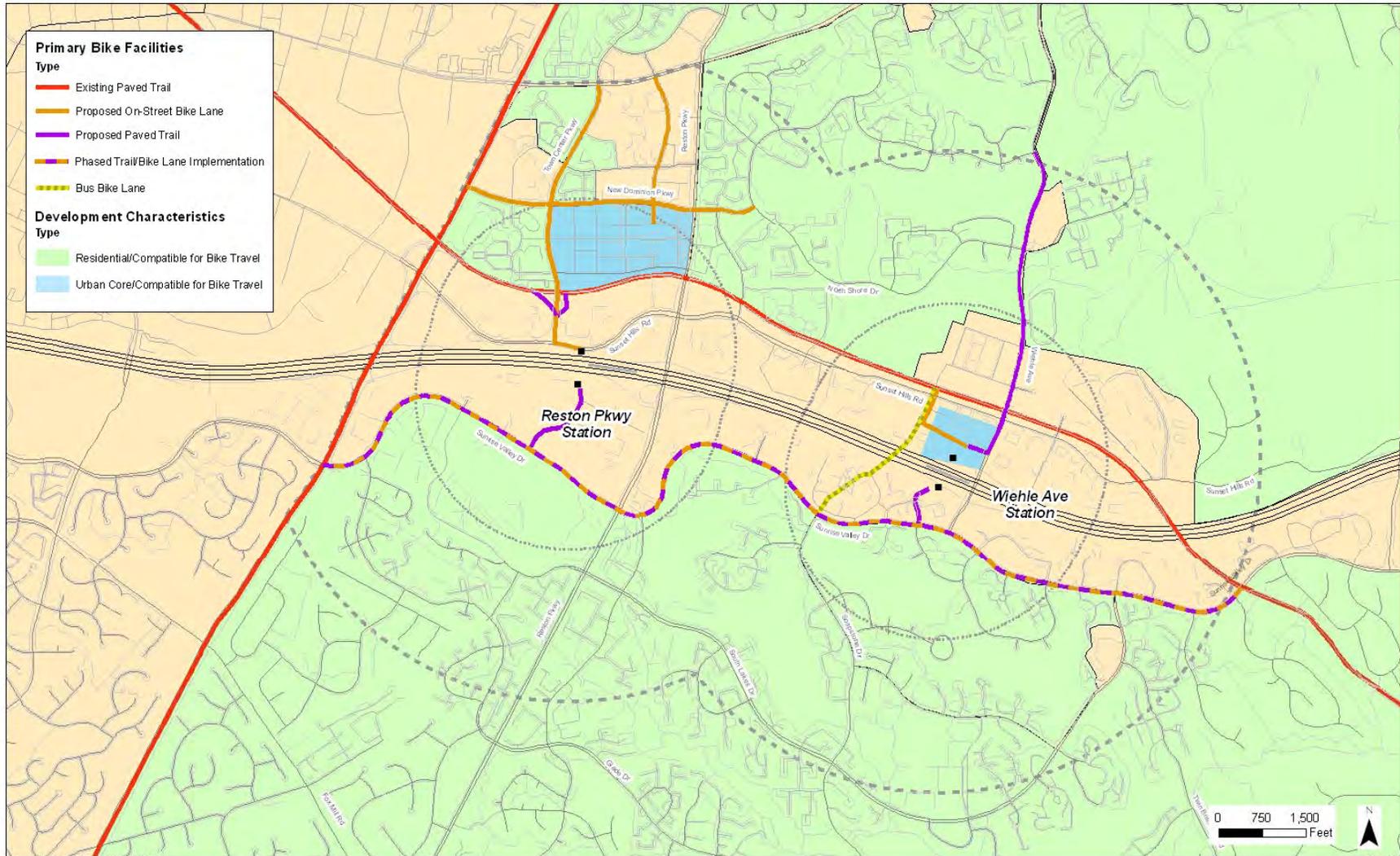


Bicycle Improvements





Bicycle Improvements





Pedestrian Facility Improvements



Basic Principles

- Increase connectivity of existing paths
- Provide more direct access
- Minimize exposure of pedestrians
- Increase visibility of pedestrians

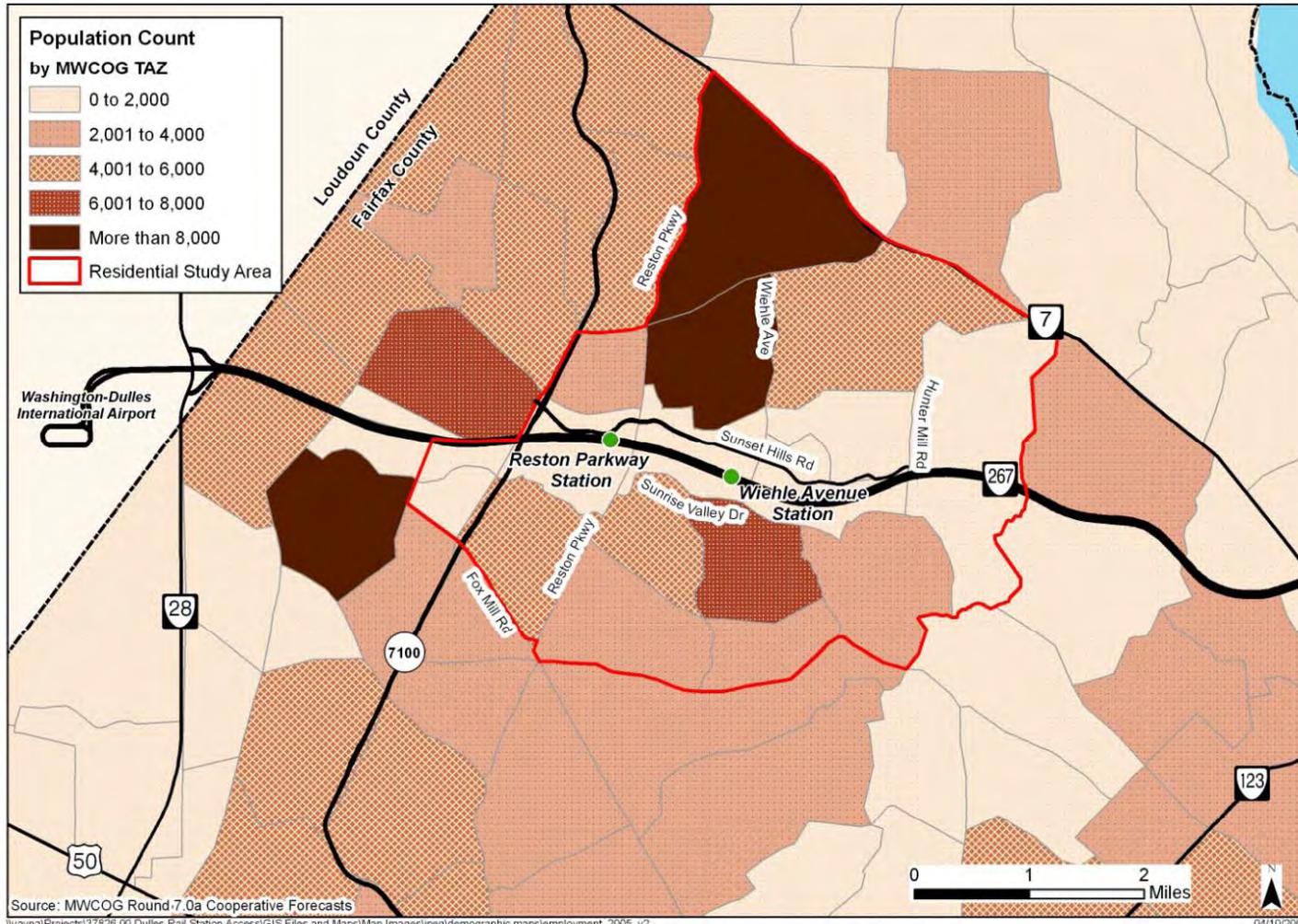


Pedestrian Trips by Station

AM Peak Period Walk Trips	From Zones to Station	From Station to Zones
Wiehle Ave Station	600	963
Reston Parkway Station	555	545
PM Peak Period Walk Trips		
Wiehle Ave Station	963	600
Reston Parkway Station	545	555

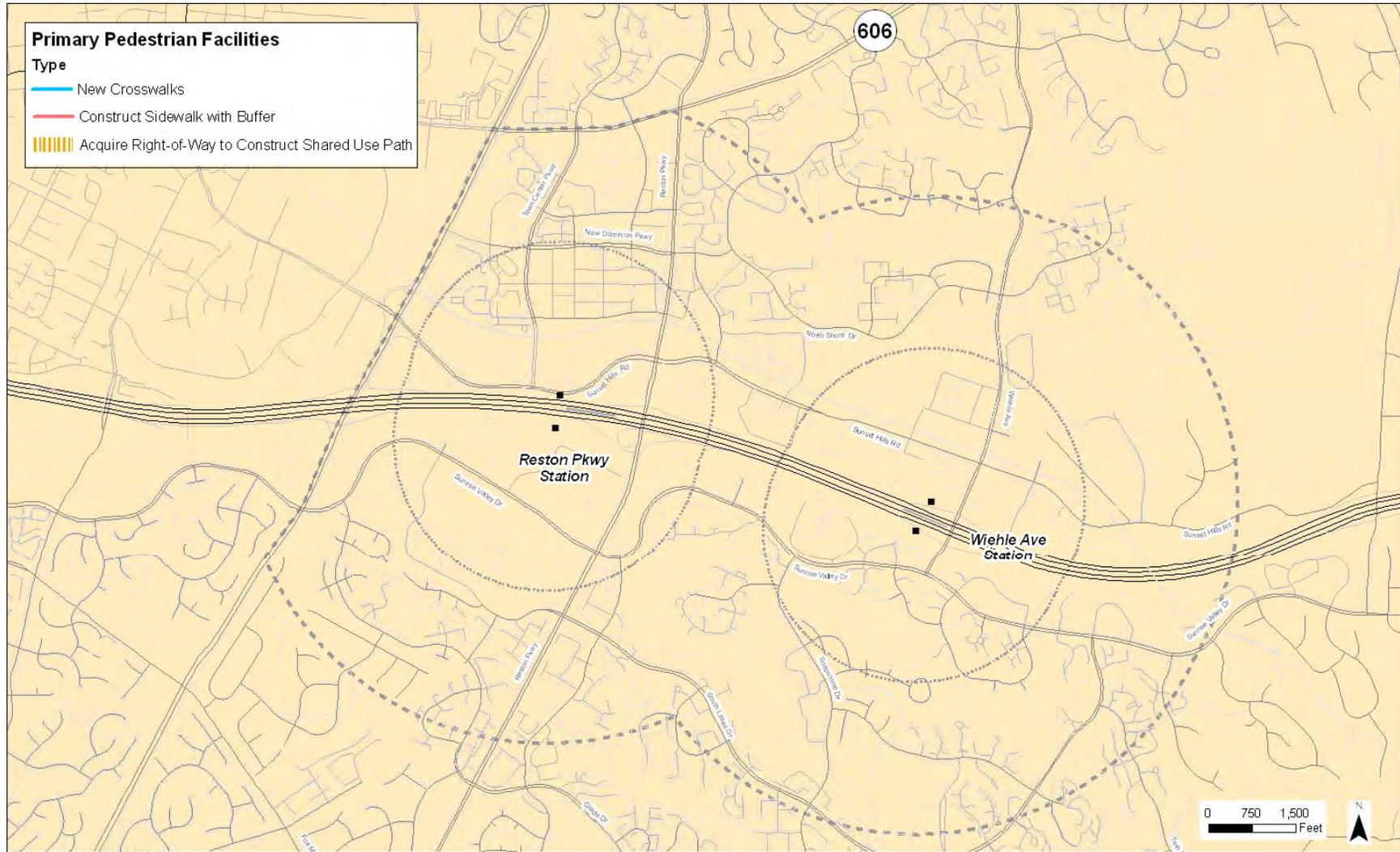


Where Pedestrians Walk



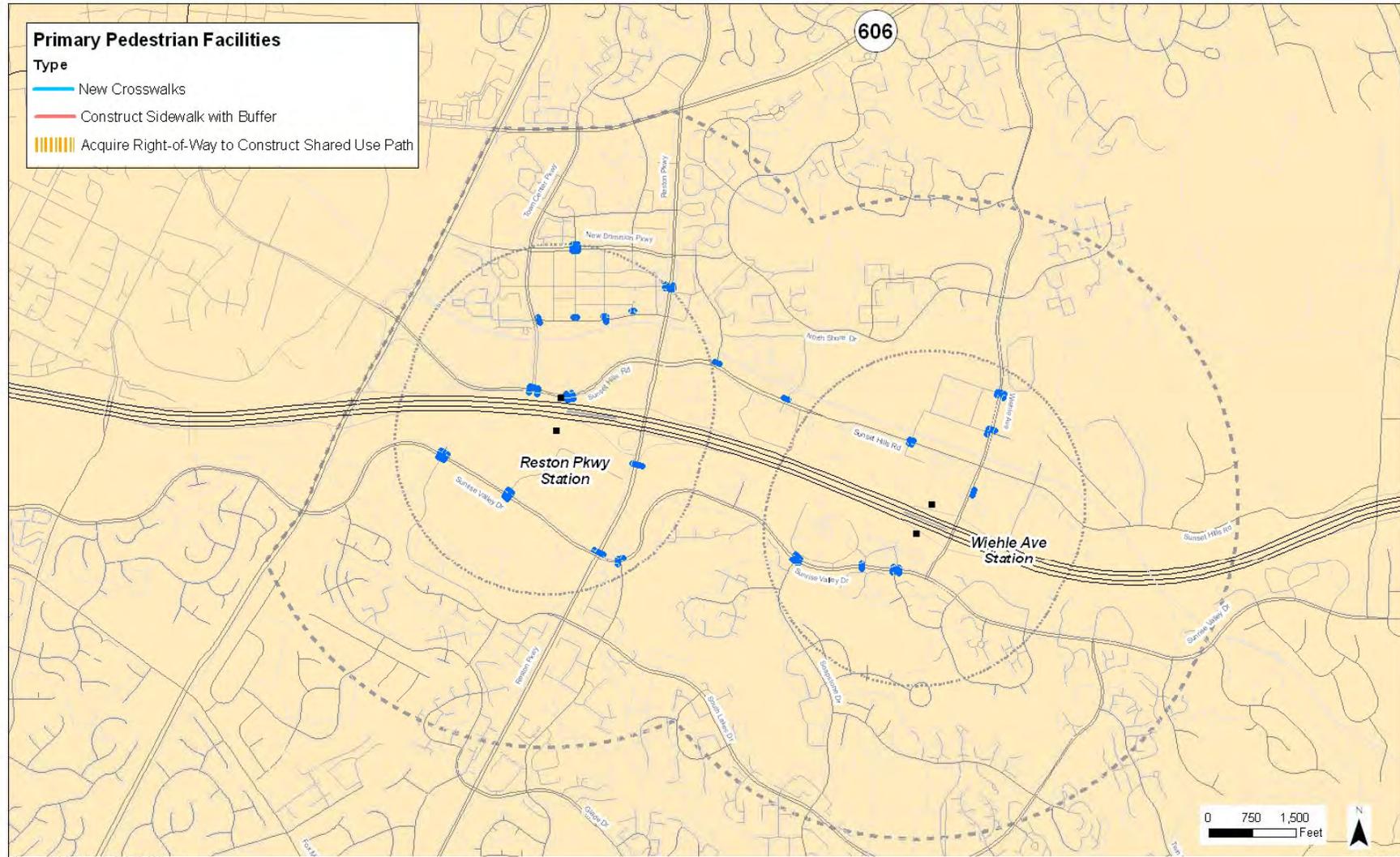


Pedestrian Improvements



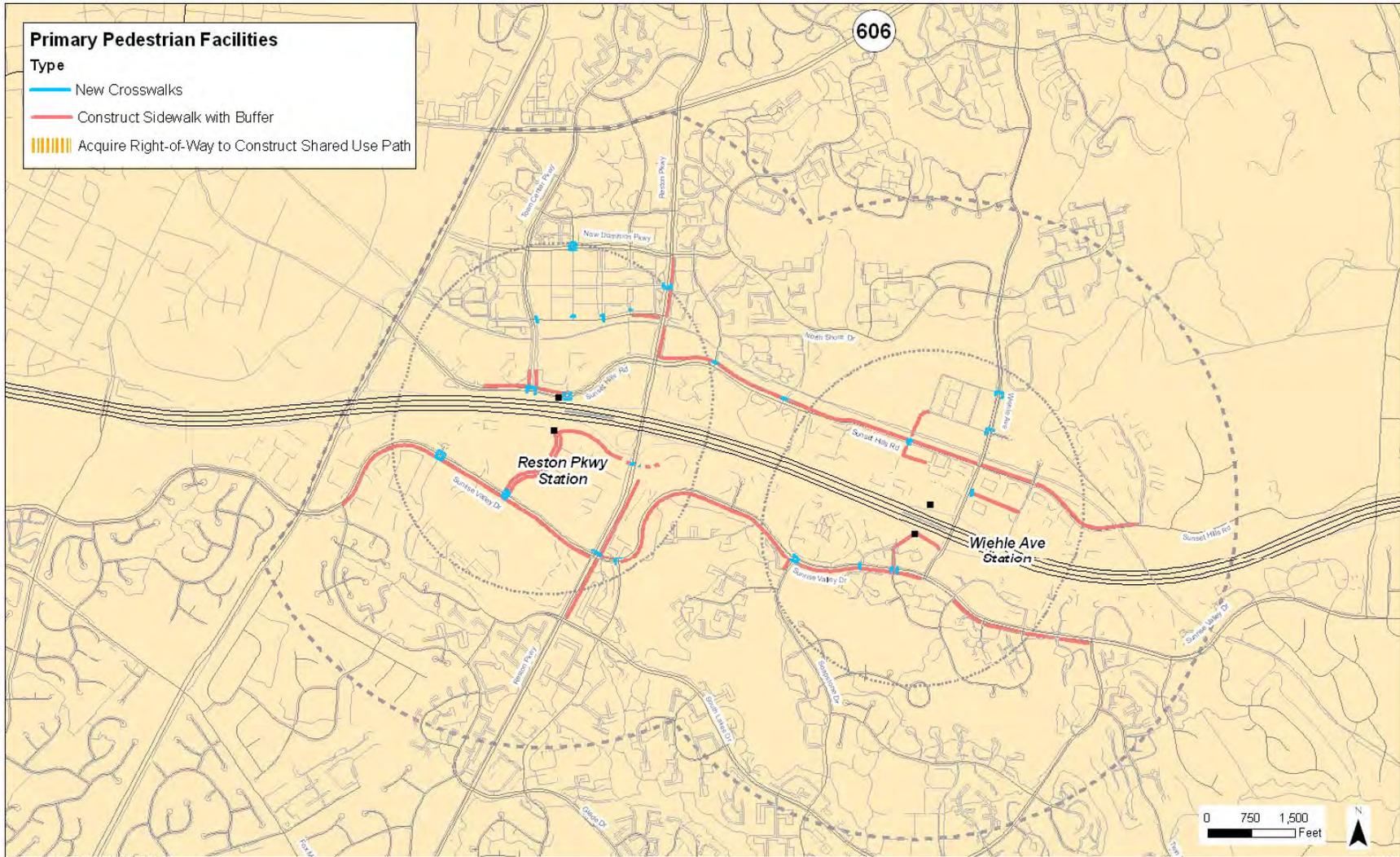


Pedestrian Improvements



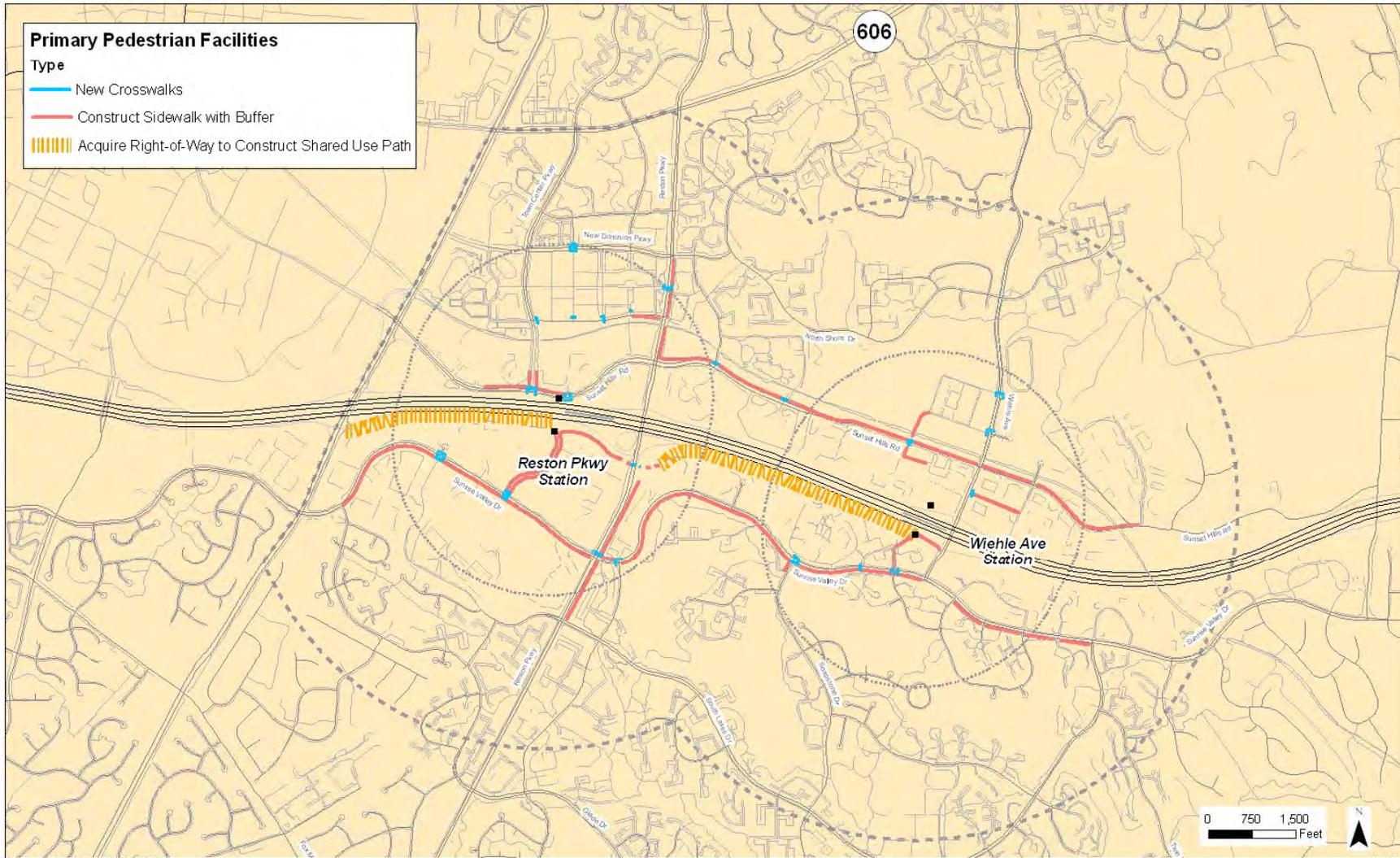


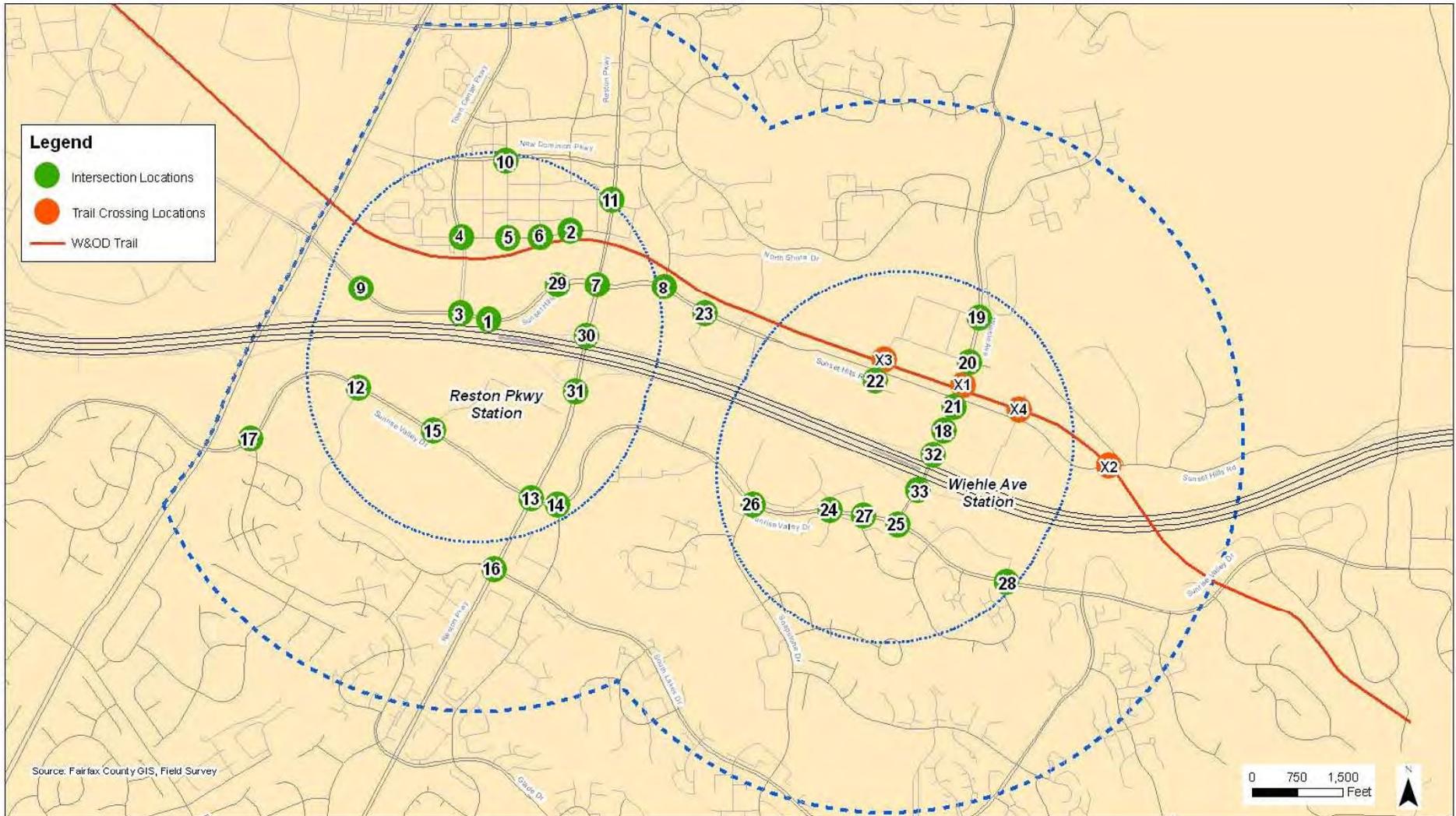
Pedestrian Improvements





Pedestrian Improvements







Paths to Reston Town Center



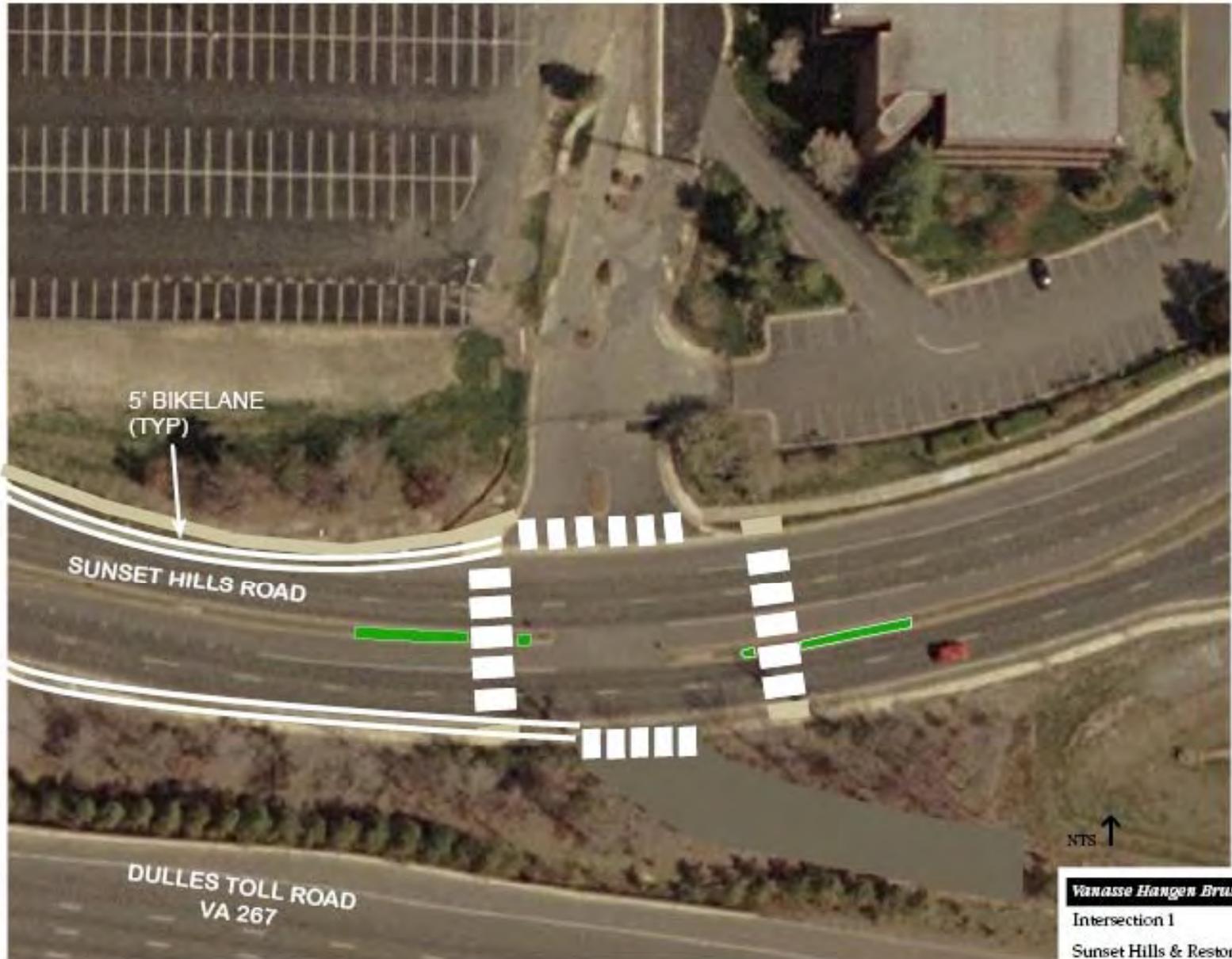
Eastern Path:
•2000 feet long
•2 street crossings
•12 minute walk

Central Path:
•1400 feet long
•1 street crossing
•8 minute walk

Western Path:
•2100 feet long
•1 street crossing
•11 minute walk



Wanasse Hangen Brustlin, Inc.
Intersection 1
Sunset Hills & Reston Pkwy
Station Entrance



Vanasse Hangen Brustlin, Inc.
Intersection 1
Sunset Hills & Reston Pkwy
Station Entrance



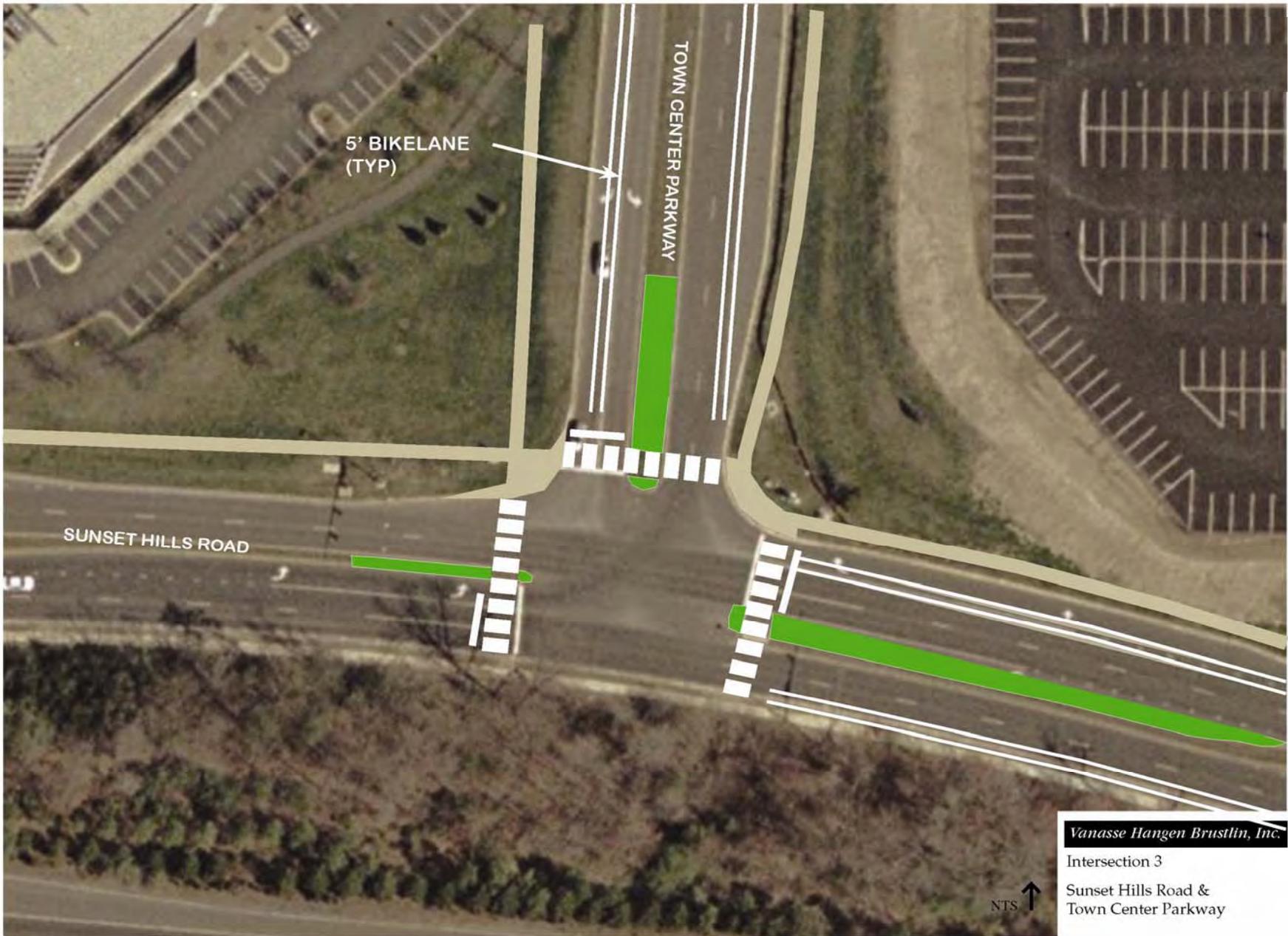
NTS ↑

Vanasse Hangen Brustlin, Inc.
Intersection 2
Bluemont Way & Discovery Street
Pedestrian Bridge





Vanasse Hangen Brustlin, Inc.
Intersection 3
Sunset Hills Road &
Town Center Parkway



Vanasse Hangen Brustlin, Inc.

Intersection 3
Sunset Hills Road &
Town Center Parkway

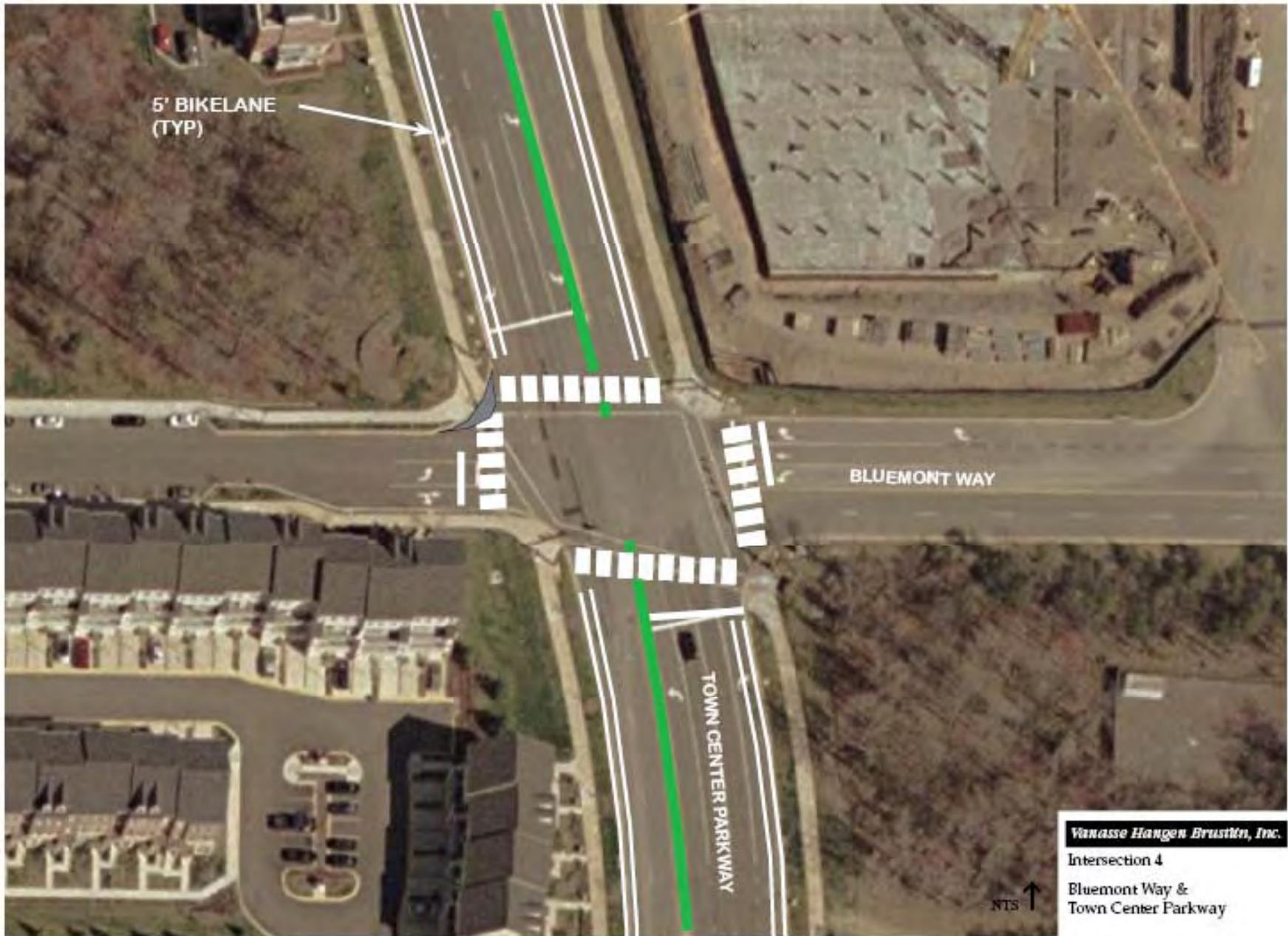


Vanasse Hangen Brustlin, Inc.

Intersection 4

Bluemont Way &
Town Center Parkway

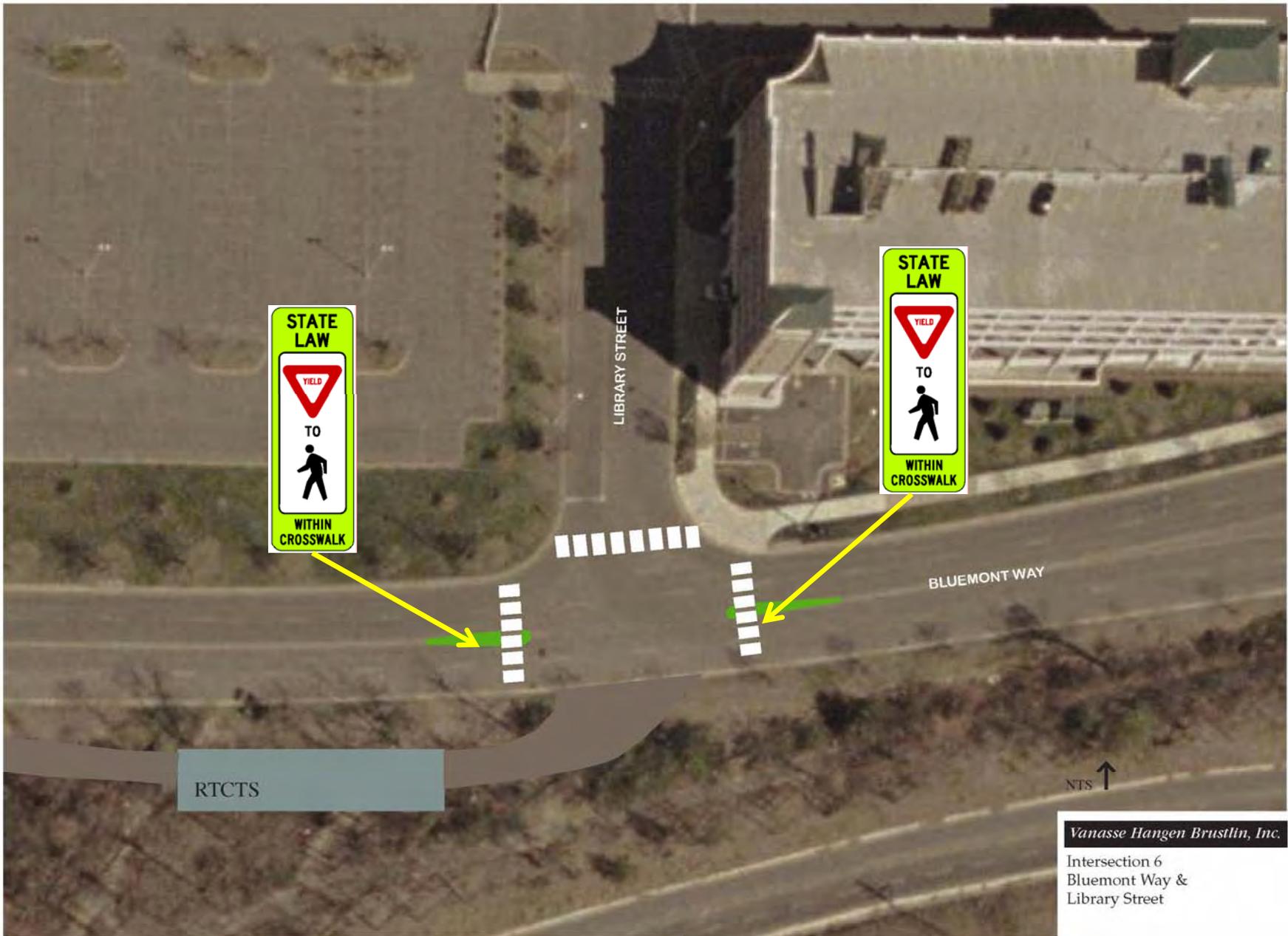
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Vanasse Hangen Brustlin, Inc.

Intersection 6
Bluemont Way &
Library Street





Vanasse Hangen Brustlin, Inc.
Intersection 10
Explorer Street &
New Dominion Parkway



Talesin Place

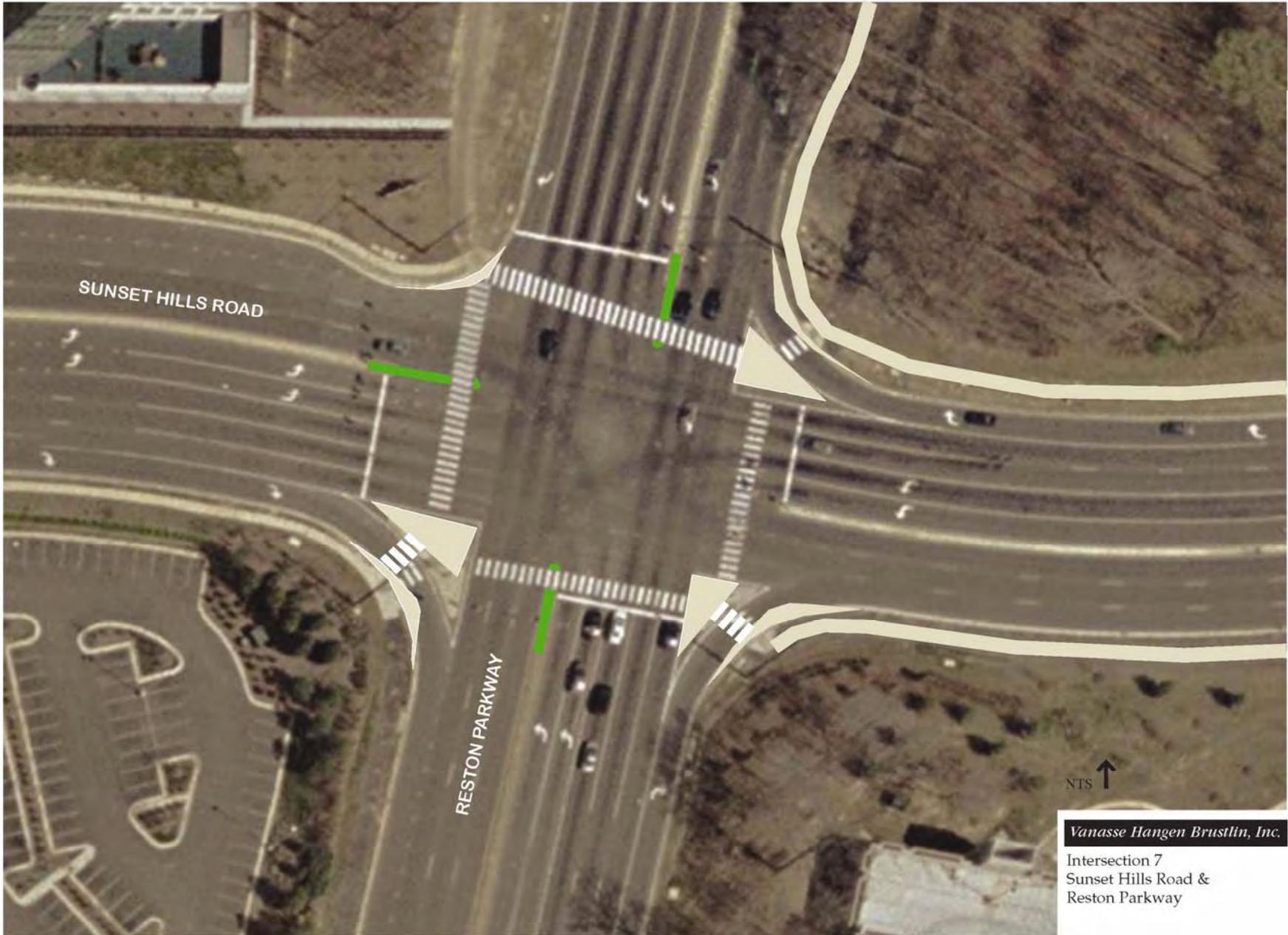
New Dominion Parkway



Vanasse Hangen Brustlin, Inc.

Intersection 10
Explorer Street &
New Dominion Parkway





Vanasse Hangen Brustlin, Inc.

Intersection 7
Sunset Hills Road &
Reston Parkway



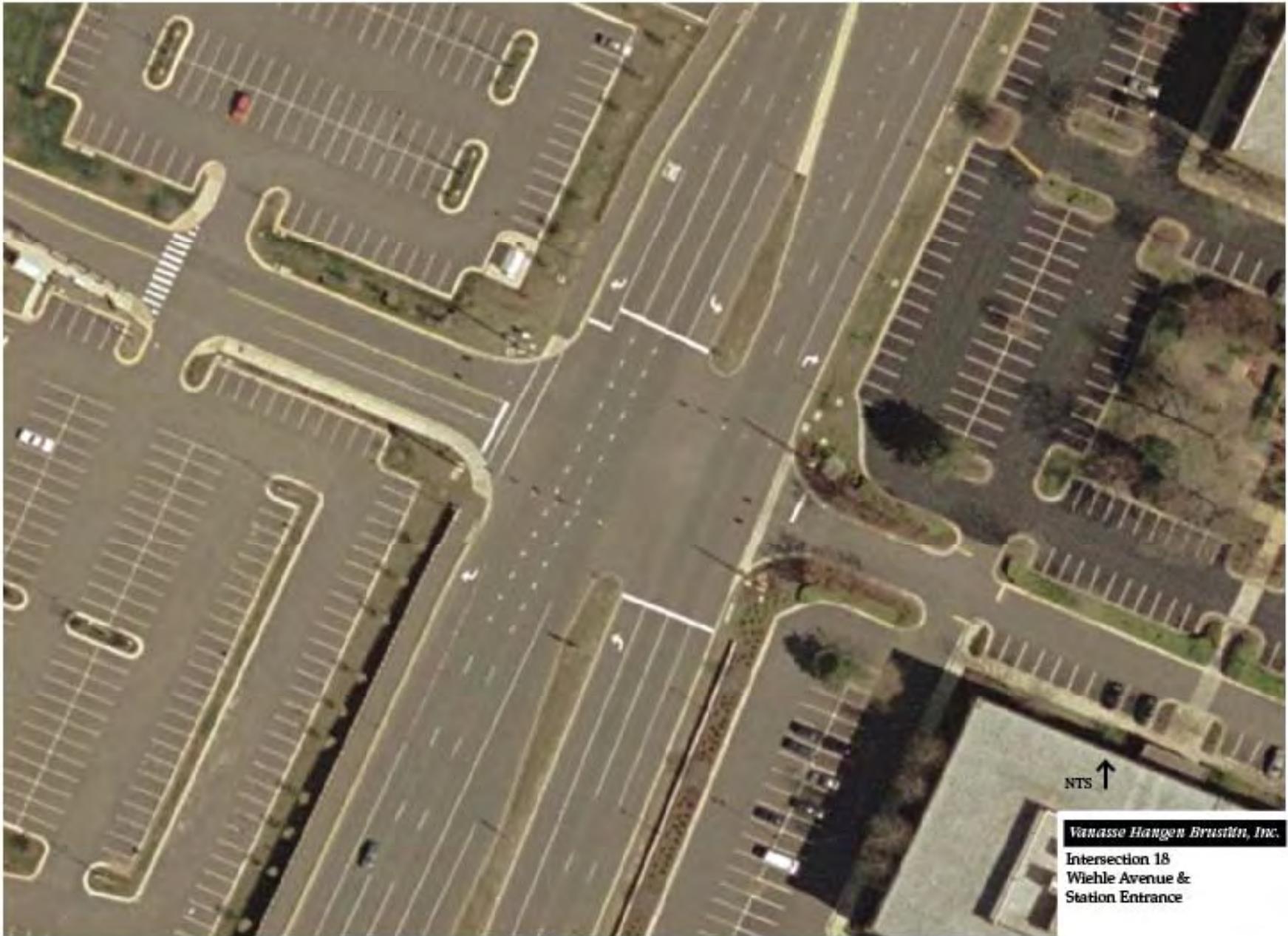
Paths to Isaac Newton Square

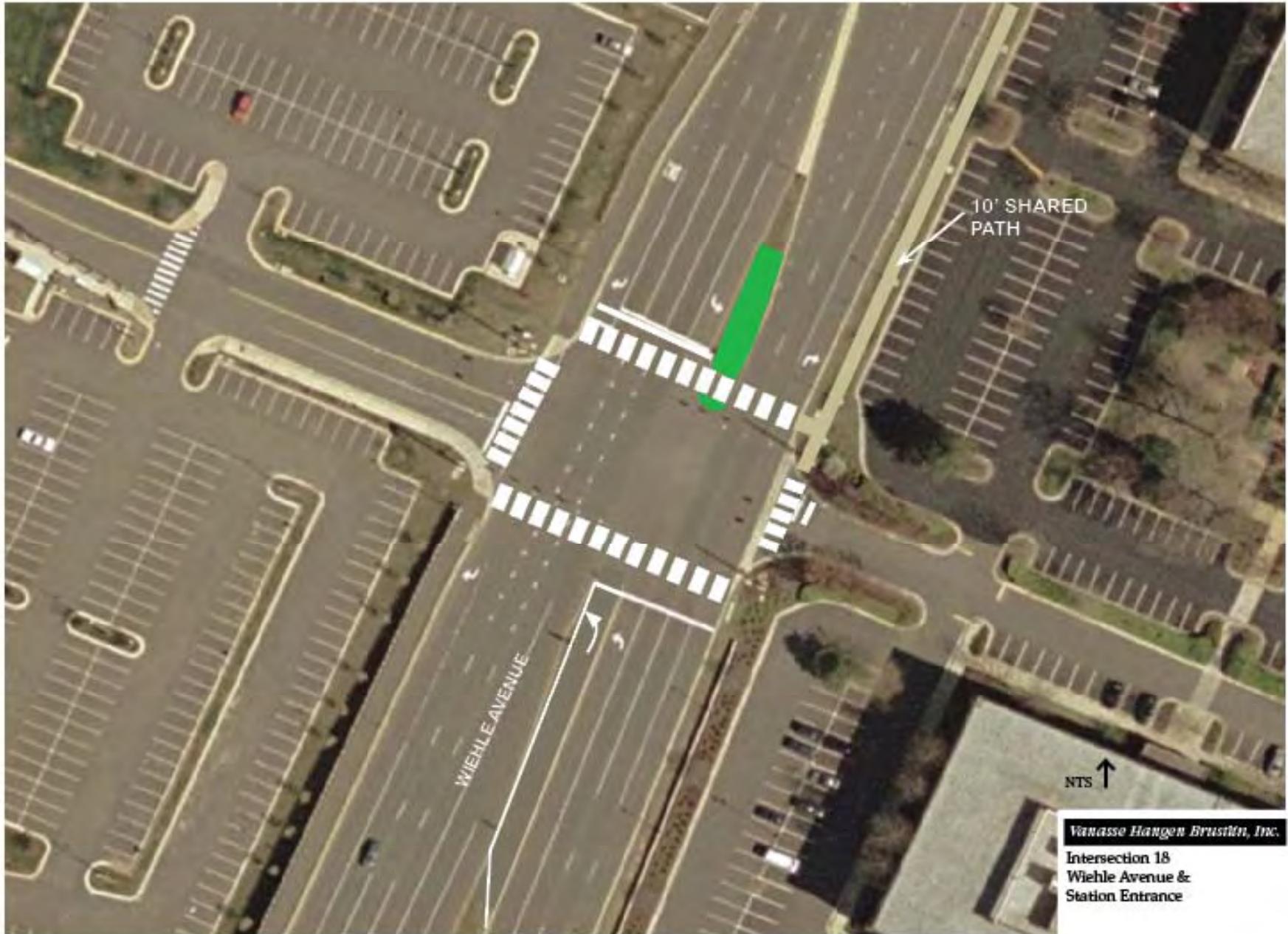


- Eastern Path:
- 3000 feet long
 - 3 street crossings
 - 17 minute walk

- Western Path:
- 2500 feet long
 - 2 street crossings
 - 14 minute walk

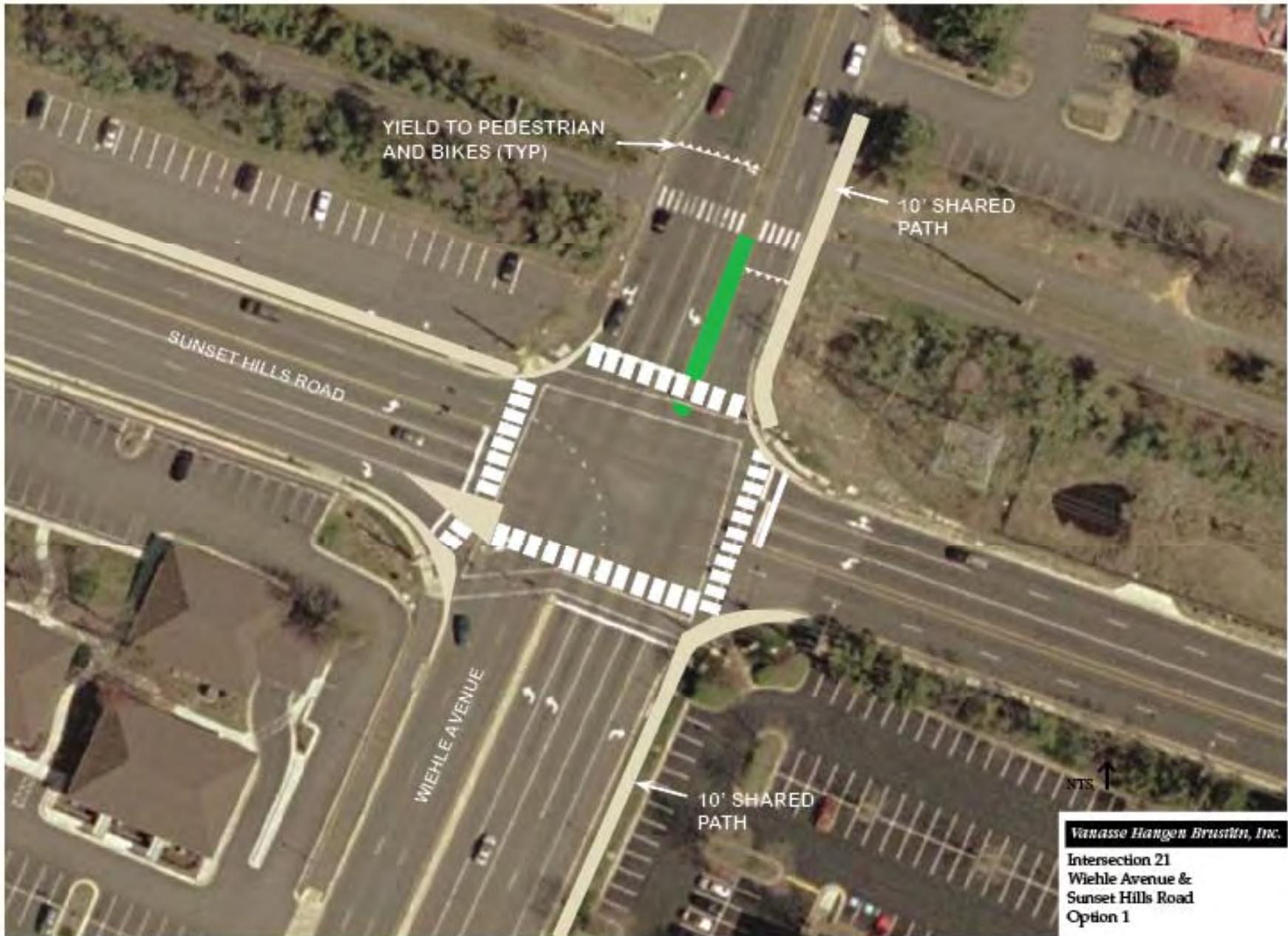
1900 feet apart

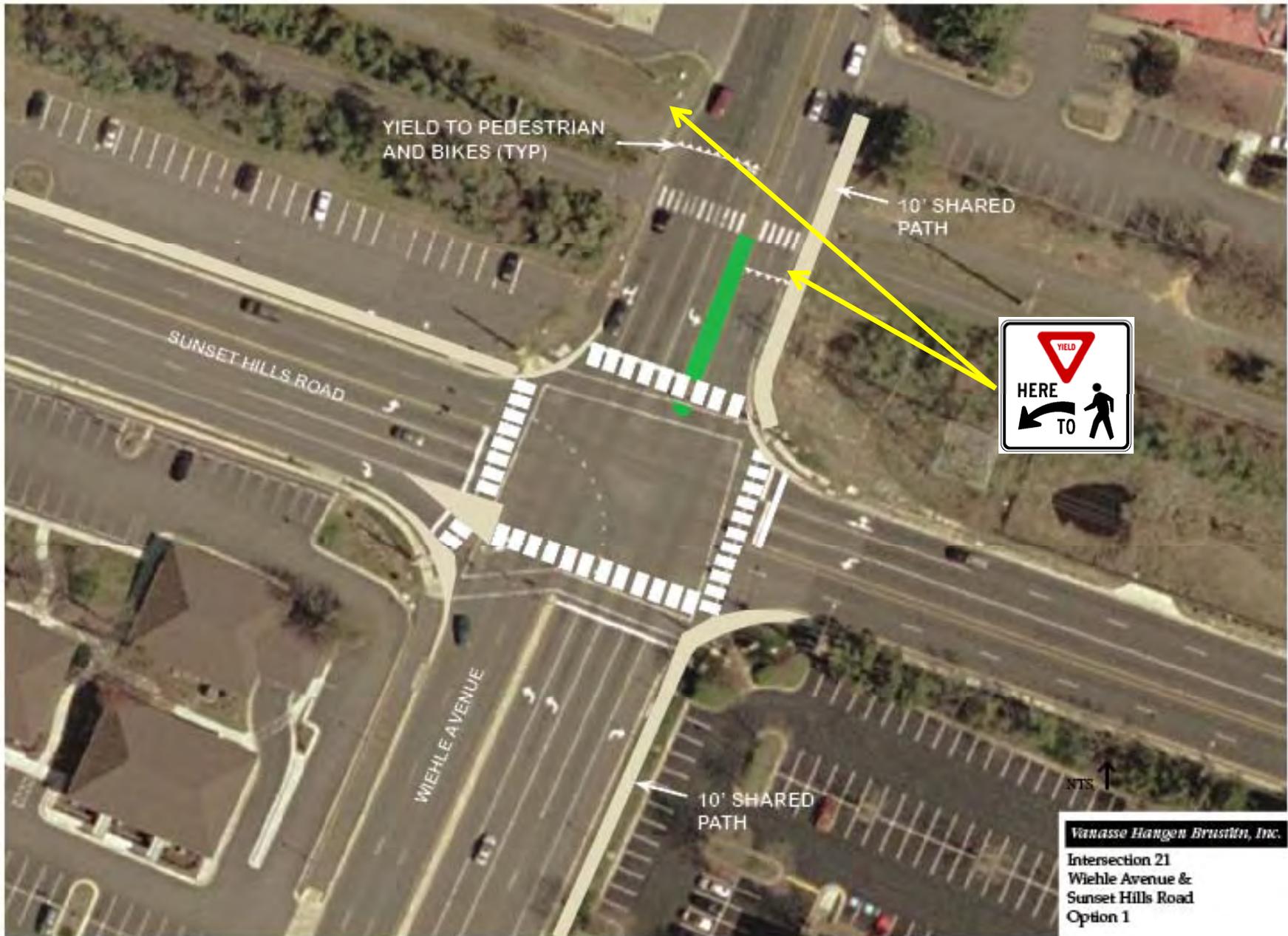






Vanasse Hangen Brustlin, Inc.
Intersection 21
Wiehle Avenue &
Sunset Hills Road
Option 2

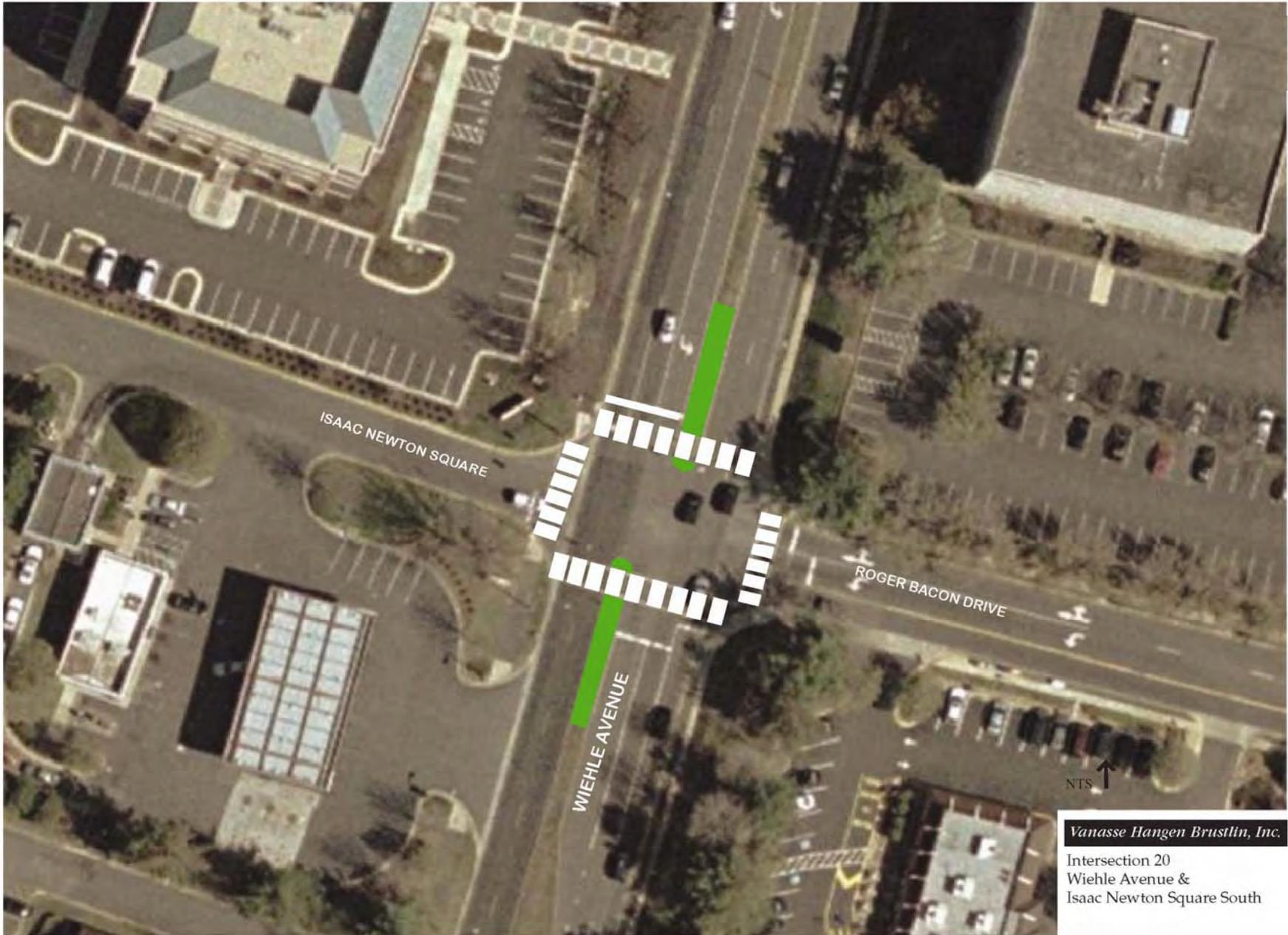








Vanasse Hangen Brustlin, Inc.
Intersection 20
Wiehle Avenue &
Isaac Newton Square South

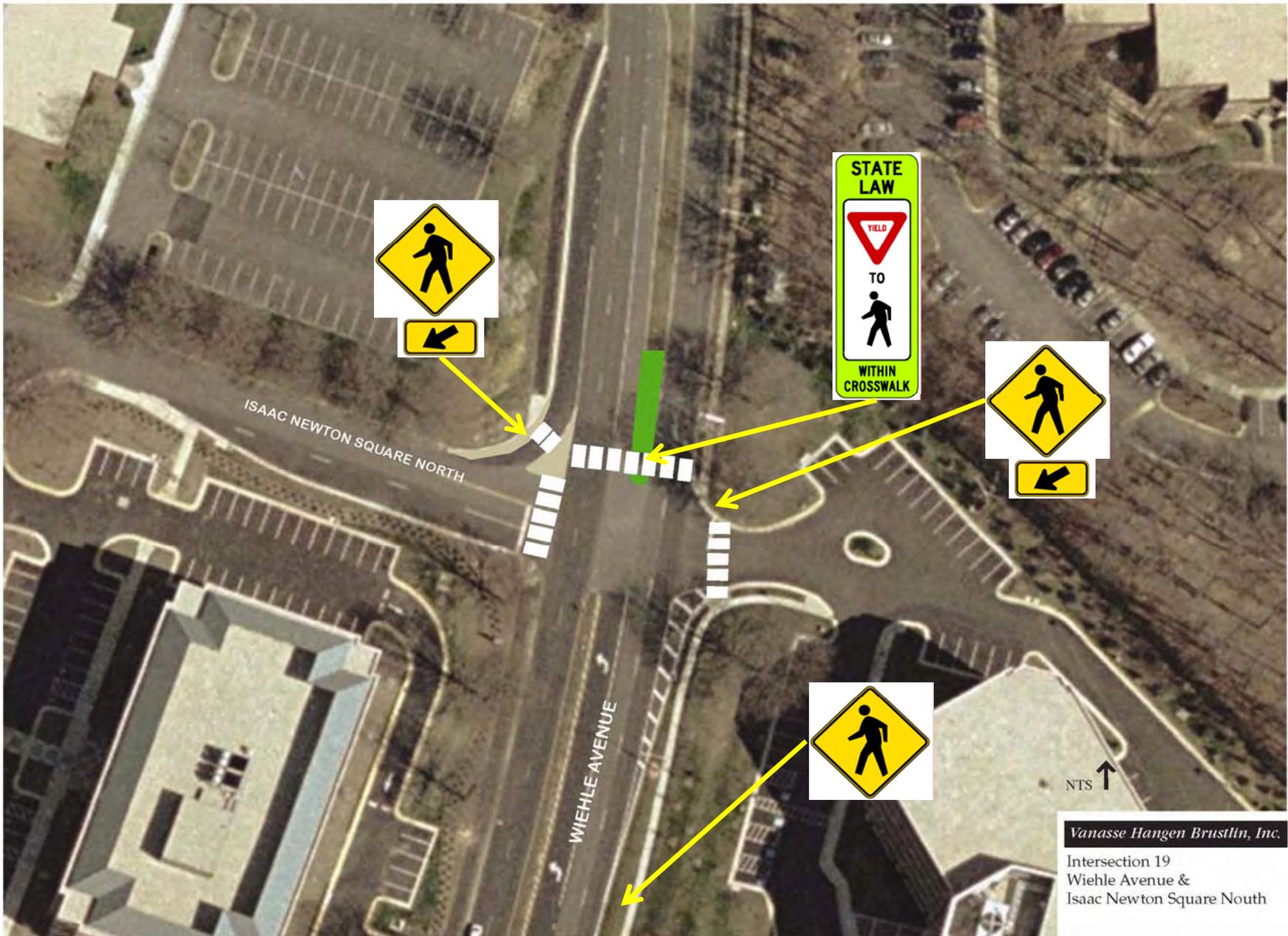


Vanasse Hangen Brustlin, Inc.

Intersection 20
Wiehle Avenue &
Isaac Newton Square South



Vanasse Hangen Brustlin, Inc.
Intersection 19
Wiehle Avenue &
Isaac Newton Square North



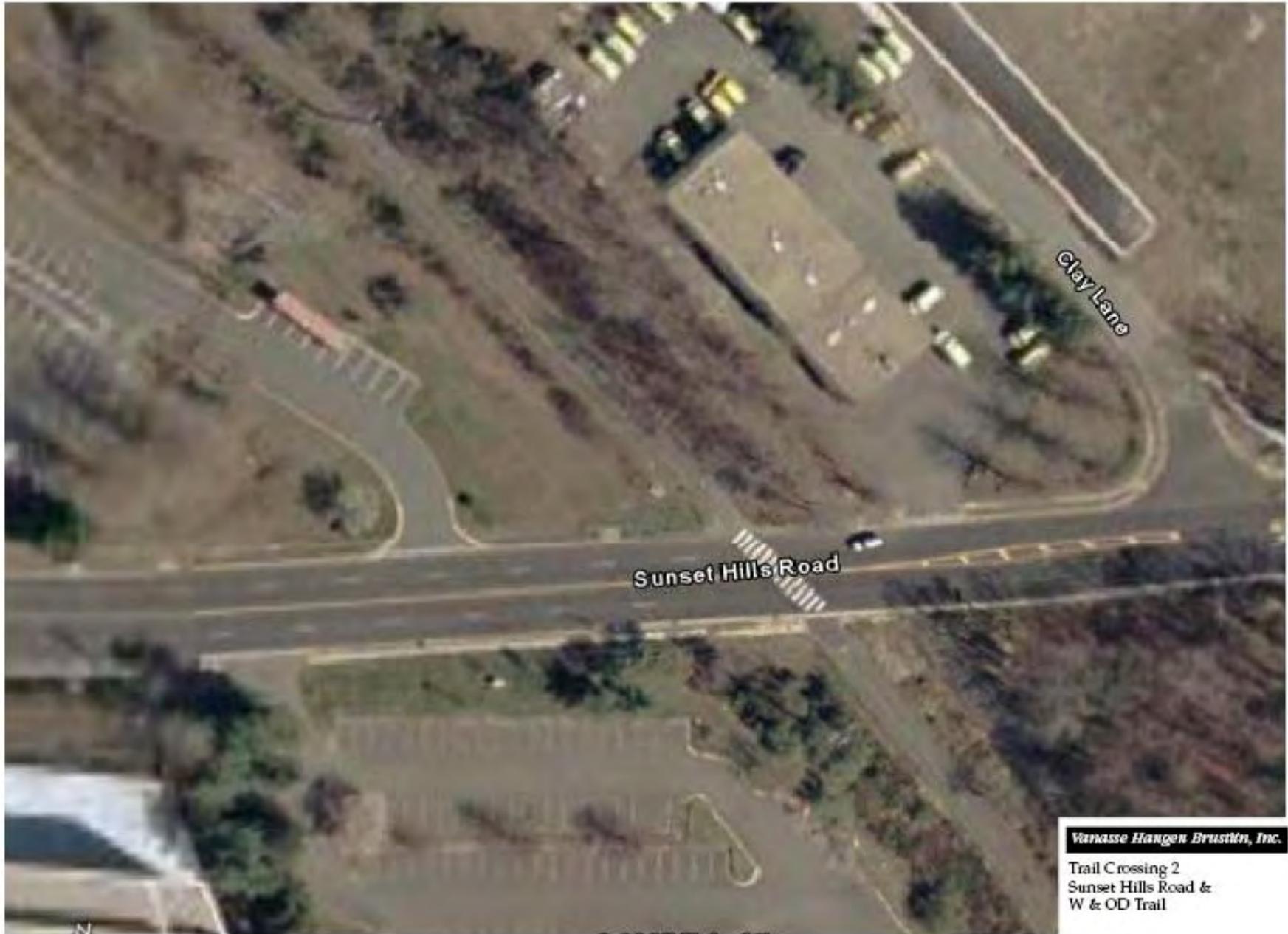


Vanasse Hangen Brustlin, Inc.
Intersection 22
Sunset Hills Road &
Issac Newton Square &
Wiehle Avenue





Vinasse Hangen Brustlin, Inc.
Intersection 22
Sunset Hills Road &
Issac Newton Square
Phase 2



Vanasse Hangen Brustlin, Inc.
Trail Crossing 2
Sunset Hills Road &
W & OD Trail



Vanasse Hangen Brustlin, Inc.
Trail Crossing 2
Sunset Hills Road &
W & OD Trail



RESTON PARKWAY STATION - SOUTH



Vanasse Hangen Brustlin, Inc.
Intersection 15
Sunrise Valley Drive &
Edmund Halley Drive



Vanasse Hangen Brustlin, Inc.
Intersection 15
Sunrise Valley Drive &
Edmund Halley Drive



Vanasse Hangen Brustlin, Inc.
Intersection 13
Sunrise Valley Drive &
Reston Parkway



Vanasse Hangen Brustlin, Inc.
Intersection 13
Sunrise Valley Drive &
Reston Parkway



Vanasse Hangen Brustlin, Inc.
Intersection 14
Sunrise Valley Drive &
Colts Neck Road



Vinasse Hangen Brustlin, Inc.
Intersection 14
Sunrise Valley Drive &
Colts Neck Road



Vanasse Hangen Brustlin, Inc.

Intersection 31
Reston Parkway &
Eastbound Dulles Toll Road
Ramps





WIEHLE AVENUE STATION - SOUTH



Vinasse Hangen Brustlin, Inc.

Intersection 25
Wiehle Avenue &
Sunrise Valley Drive



Vinasse Hangen Brustlin, Inc.
Intersection 25
Wiehle Avenue &
Sunrise Valley Drive
Option 2



Vanasse Hangen Brustlin, Inc.
Intersection 25
Wiehle Avenue &
Sunrise Valley Drive
Option 1



NTS ↑

Wanasse Hangen Brustlin, Inc.
Intersection 26
Sunrise Valley Drive &
Soapstone Road



NTS ↑

Vanasse Hangen Brustlin, Inc.

Intersection 26
Sunrise Valley Drive &
Soapstone Road



Vanasse Hangen Brustlin, Inc.

Intersection 33
Wiehle Avenue &
Eastbound Dulles Toll Road
Ramps



Vanasse Hangen Brustlin, Inc.

Intersection 33
Wiehle Avenue &
Eastbound Dulles Toll Road
Ramps



Study Area Recommendations- Pedestrians and Bicyclists

- Intersection improvements include:
 - Install 71 pedestrian countdown signals: curb ramps
 - Add 46 new crosswalks; improve 42 existing
 - Construct 40 pedestrian median refuges
 - Channelize right turns at 5 locations
 - Decrease turning radius at 19 locations
- Construct new bikeways:
 - Up to 6 miles of on-street bike lanes (2.2 miles initially)
 - Over 7 miles of bicycle paths/shared-use
 - Up to 7.25 miles of new sidewalks



Inter-parcel Connections

- South entrances to both stations
- South side of Reston Parkway
- Wiehle Avenue Station and parcels across from station
- Roger Bacon Drive extension
- Connection between North Reston Station and Town Center (through Boston Properties)

Other Connections

- Soapstone connector
 - Four lane facility
 - Mitigate traffic delays with two lanes
 - Shared exclusive bus/bike lanes





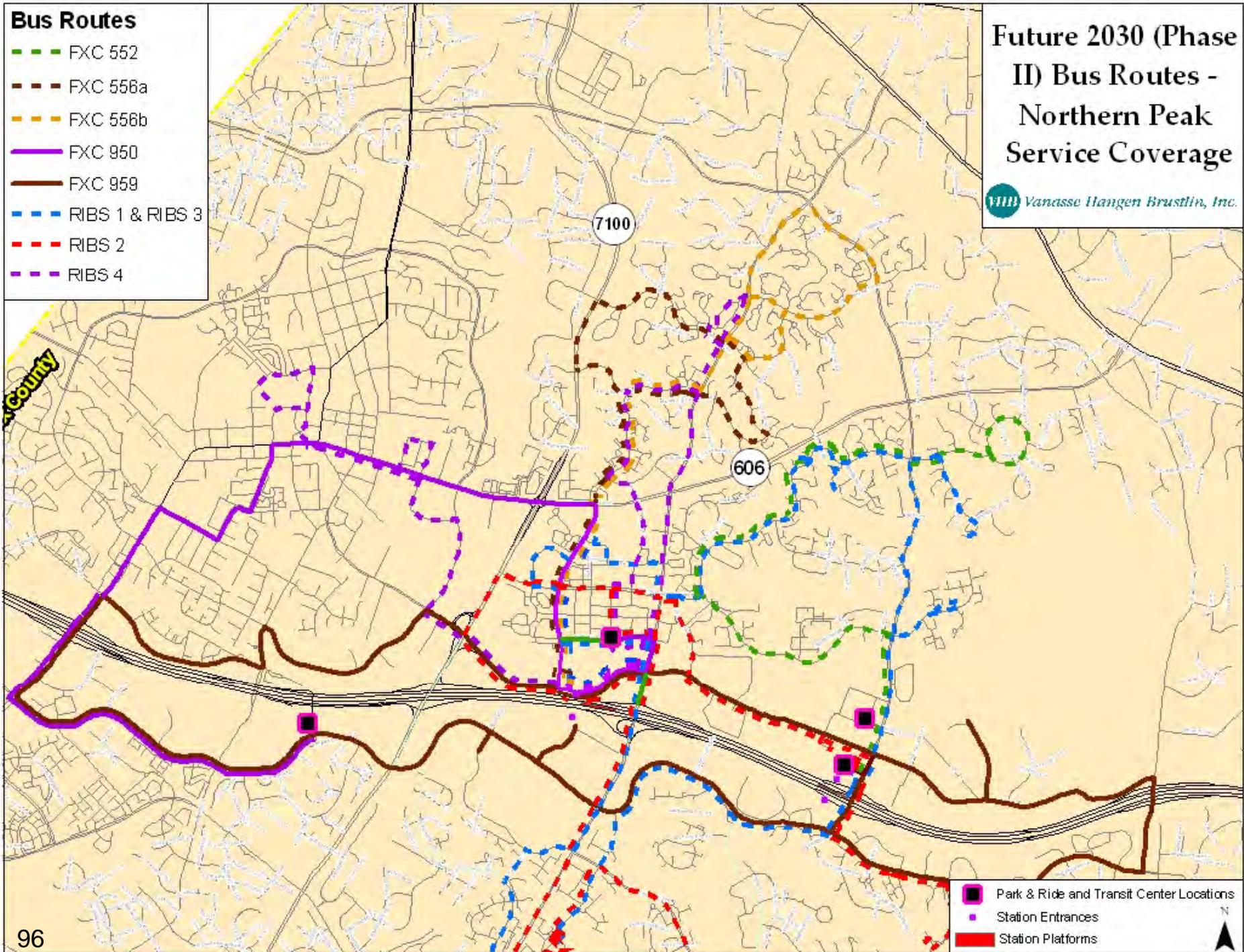
Transit Recommendations

Bus Routes

- FXC 552
- FXC 558a
- FXC 558b
- FXC 950
- FXC 959
- RIBS 1 & RIBS 3
- RIBS 2
- RIBS 4

Future 2030 (Phase II) Bus Routes - Northern Peak Service Coverage

 Vanasse Hangen Brustlin, Inc.



-  Park & Ride and Transit Center Locations
-  Station Entrances
-  Station Platforms

Future 2030 (Phase II) Bus Routes - Southern Peak Service Coverage

VHB Vanasse Hangen Brustlin, Inc.

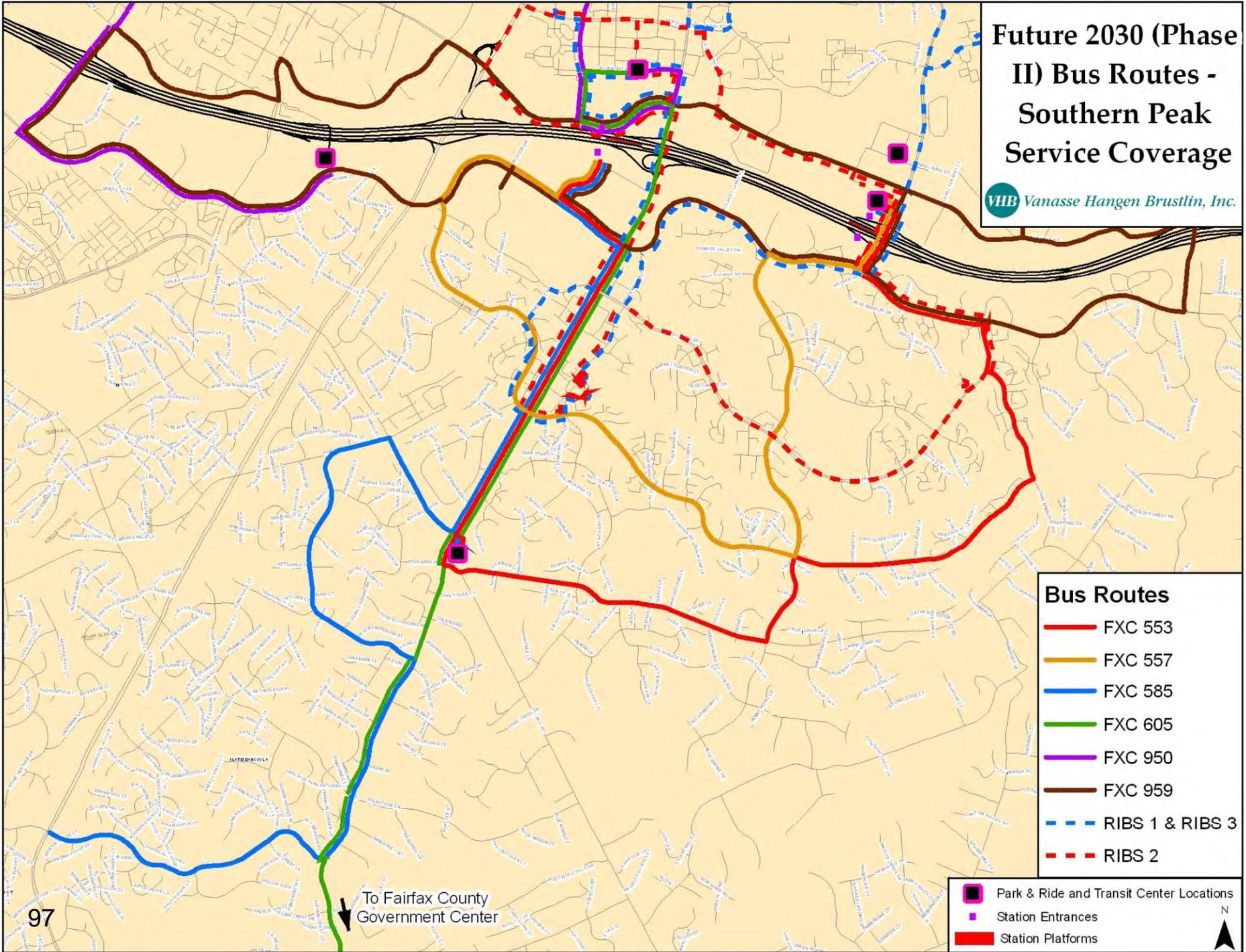
Bus Routes

- FXC 553
- FXC 557
- FXC 585
- FXC 605
- FXC 950
- FXC 959
- RIBS 1 & RIBS 3
- RIBS 2

- Park & Ride and Transit Center Locations
- Station Entrances
- Station Platforms



To Fairfax County Government Center

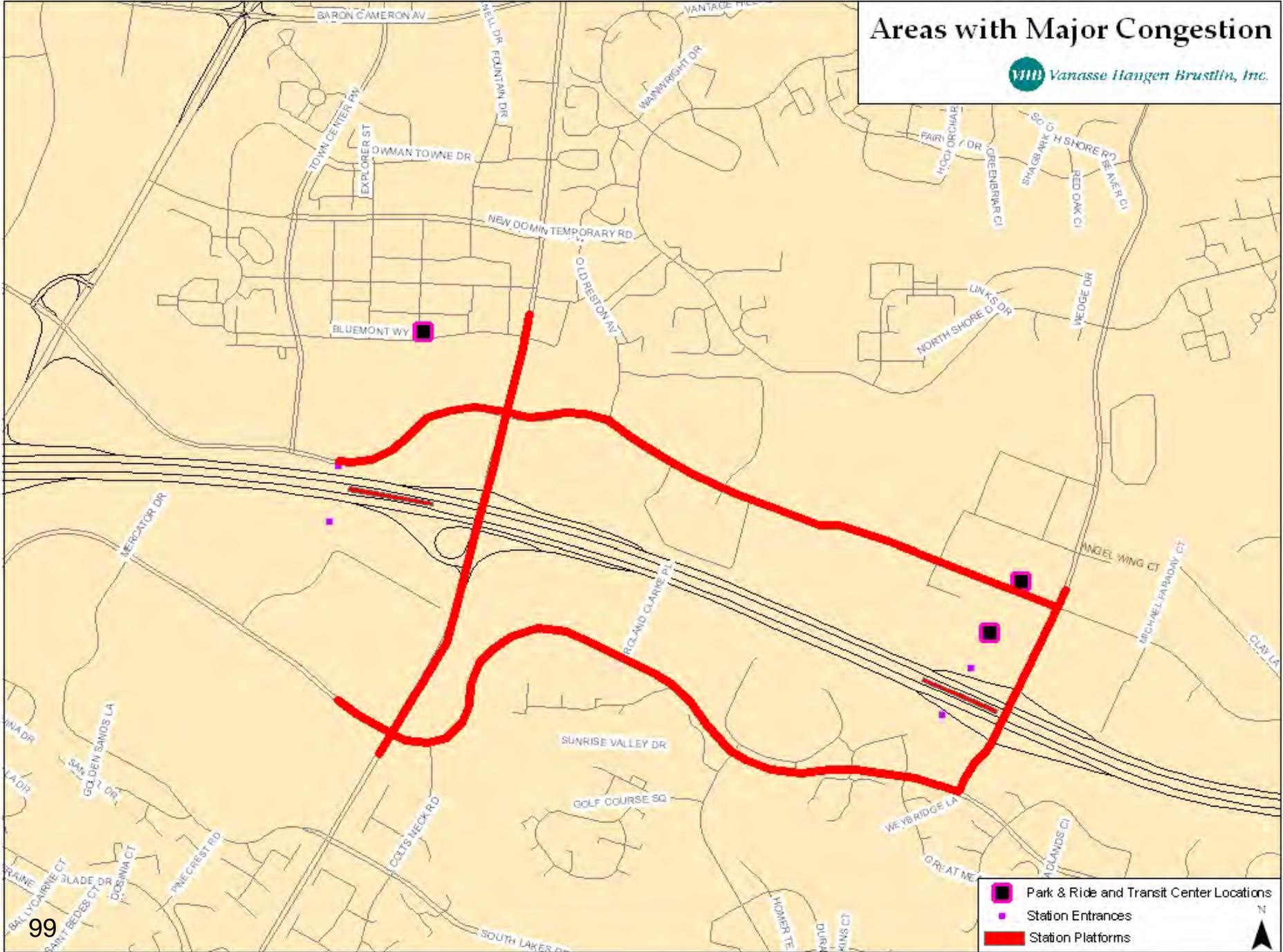




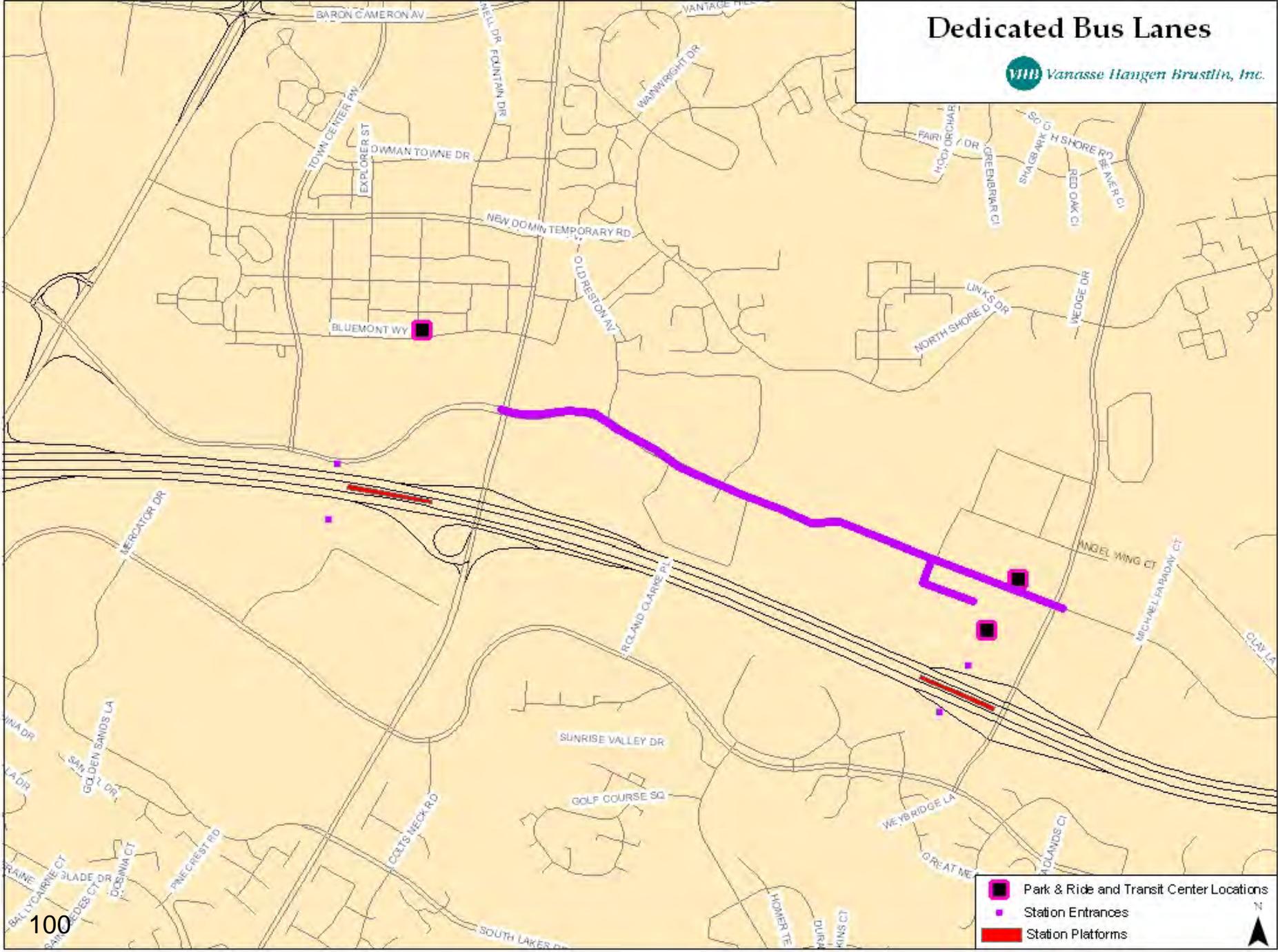
Proposed Route Summary

Number	Headway (peak/ off-peak)	Direction	Service Span
FXC552	14	Peak	Weekday -Peak
FXC553	14	Both	Weekday-Peak
FXC556a	21	Peak	Weekday-Peak
FXC556b	28	Peak	Weekday-Peak
FXC557	14	Both	Weekday-Peak
FXC585	21/56	Peak/Both	Weekday Peak/ mid- day
FXC605	21/42	Both	7 days-All day
RIBS1	28/56	Clockwise	7 days-All day
RIBS2	28/56	Both	7days-All day
RIBS3	28/56	Counter-clockwise	7days-All day
RIBS4	28/56	Both	7days-All day
FXC950	28	Both	7 days-All day
FXC959	14/28	Both	7 days-All day

Areas with Major Congestion

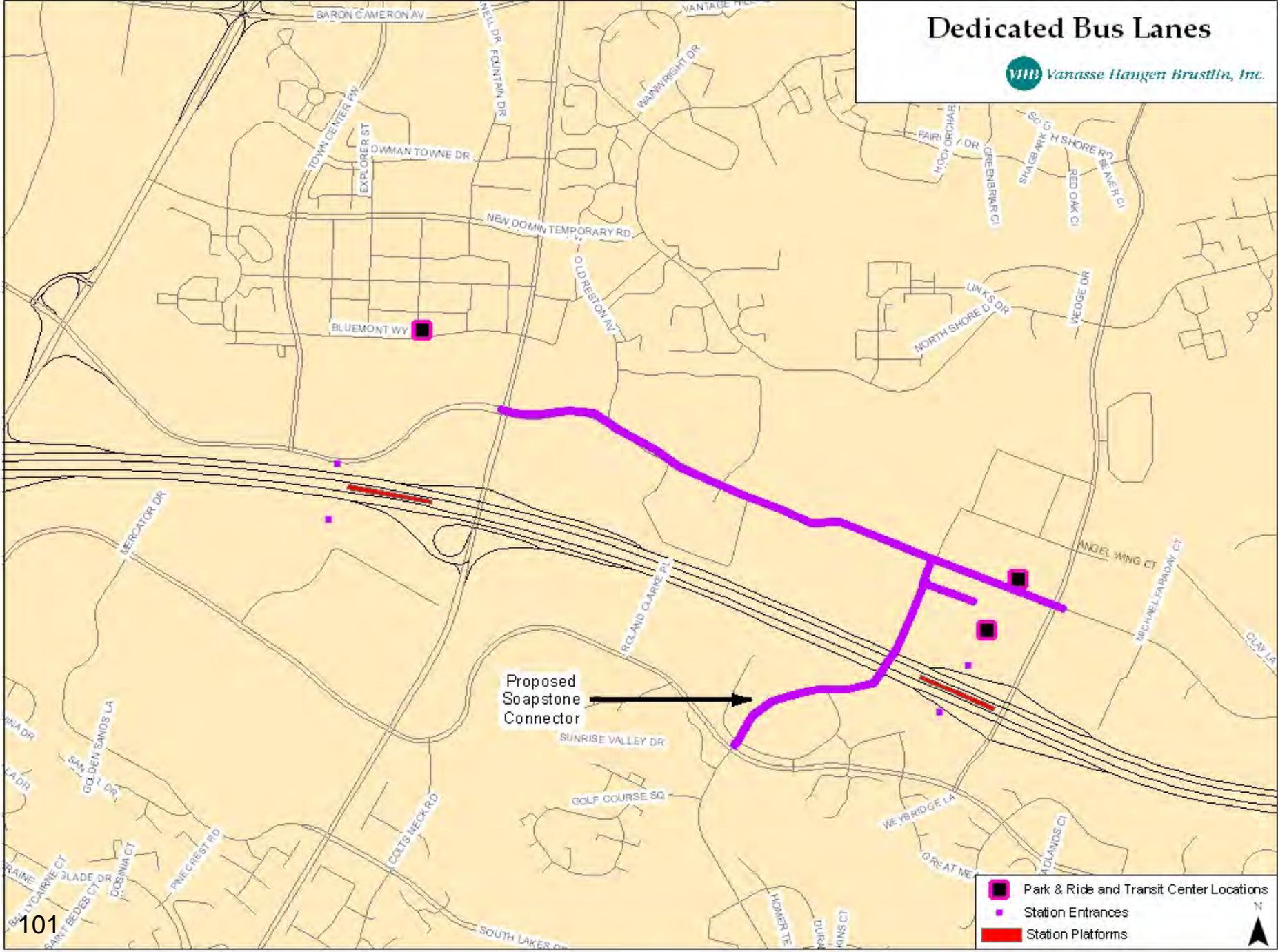


Dedicated Bus Lanes



-  Park & Ride and Transit Center Locations
-  Station Entrances
-  Station Platforms

Dedicated Bus Lanes



- Park & Ride and Transit Center Locations
- Station Entrances
- Station Platforms





Transit Findings Summary

- 13 bus routes and operational details
- Exclusive bus lanes needed to alleviate transit delays
- Currently developing
 - Operating cost analysis
 - Staffing plan
 - Capital cost analysis



Study Area Recommendations

- Presented multi-modal approach
- Improved bike/ped and transit mobility will help reduce SOV trips

Intersection Improvements – Reston Parkway North

No.	Location	Airline Distance to Station Entrance (ft)	Avg. PISI	Recommendations
I1	Sunset Hills @ Station Entrance	90	--	East: High visibility crosswalk, pedestrian countdown signal, curb ramps, median refuge island; West: High visibility crosswalk, pedestrian countdown signal, curb ramps, median refuge island; South: High visibility crosswalk, pedestrian countdown signal, curb ramps
I2	Bluemont Way & Discovery St @ Pedestrian Bridge	1,800	--	West: High visibility crosswalk, pedestrian countdown signal, raised median refuge island; North: High visibility crosswalk, construct curb ramp (east)
I3*	Sunset Hills & Town Center Pkwy	700	3.2	All Approaches: High visibility crosswalk, extend median to include pedestrian refuge, pedestrian countdown signal, construct curb ramps
I4*	Town Center Pkwy & Bluemont Way	1,500	--	North: Extend median to include pedestrian refuge; South: , extend median to include pedestrian refuge, decrease right turn radius; All Approaches: Upgrade curb ramps, high visibility crosswalk, re-align crosswalk
I5	Explorer St & Bluemont Way	1,400	--	North: High visibility crosswalk & upgraded curb ramps
I6	Library St & Bluemont Way	1,500	--	North: Upgraded curb ramps; East: Median pedestrian refuge, pedestrian warning and knockdown signs; West: Median pedestrian refuge, pedestrian warning and knockdown signs; All Approaches: High visibility crosswalk;



Intersection Improvements – Reston Parkway North (2)

No.	Location	Airline Distance to Station Entrance (ft)	Avg. PISI	Recommendations
17*	Reston Pkwy & Sunset Hills Rd	1,600	4.5	East: Realign right turn channelization; South: Realign right turn channelization, extend median to include pedestrian refuge; West: Realign right turn channelization, extend median to include pedestrian refuge; All Approaches: High visibility crosswalk, pedestrian countdown signal, decrease right turn radius, upgrade curb ramps
18*	Sunset Hills & Old Reston Ave	2,500	4	North: High visibility crosswalk, pedestrian countdown signal, upgrade/construct curb ramps; South: Pedestrian countdown signal, upgraded curb ramps, high visibility crosswalk; East: Realign high visibility crosswalk, extend median to include pedestrian refuge, pedestrian countdown signal, upgrade/construct curb ramps
19*	Sunset Hills @ Target Driveway	2,100	3.9	All approaches: High visibility crosswalks, countdown signals, upgraded curb ramps; East: Extend medians to include pedestrian refuge, re-align crosswalk
110	Explorer St & New Dominion Pkwy	2,600	--	All approaches: High visibility crosswalks, upgraded curb ramps, decrease curb radii, potential signal with pedestrian phase; East: Extend median island to include pedestrian refuge; West: Pedestrian median refuge;



Intersection Improvements – Reston Parkway North (3)

No.	Location	Airline Distance to Station Entrance (ft)	Avg. PISI	Recommendations
I11*	Reston Pkwy & Market St	2,600	3.4	South: High visibility crosswalk, pedestrian countdown signal, curb ramps, pedestrian median refuge; West: pedestrian countdown signal, high visibility crosswalk, curb ramps; East: pedestrian countdown signal, high visibility crosswalk, upgrade curb ramps; **Intersection currently under construction to implement improvements**
I29	Sunset Hills Rd & Discovery Sq/Northrup Grumman E Entrance	1,000	4	East: Median pedestrian refuge; West: Median pedestrian refuge; All Approaches: High visibility crosswalk, pedestrian countdown signal, upgrade curb ramps
I30	Reston Pkwy & Westbound Dulles Toll Rd ramps	1,200	--	North: Realign pedestrian refuge island, decrease right turn radius; West: Realign crosswalks, high visibility crosswalks, pedestrian countdown signal, upgrade curb ramps;

Intersection Improvements – Reston Parkway South

No	Location	Airline Distance to Station Entrance (ft)	Avg. PISI	Recommendations
I12*	Sunrise Valley Dr & Mercator Dr	2,900	3.1	North: High visibility crosswalk, upgrade curb-ramps, pedestrian countdown signal; West: High visibility crosswalk, pedestrian countdown signal, pedestrian median refuge, upgrade/construct curb ramps, decrease right turn curb radius; South: High visibility crosswalk, construct curb-ramps, pedestrian median refuge, pedestrian countdown signal;
I13*	Sunrise Valley & Reston Pkwy	2,000	3.4	North: Channelized right turns; West: Re-align crosswalk; South: Re-align crosswalk; East: Re-align crosswalk, channelize right turns, decrease right turn radius; All Approaches: high visibility crosswalks, pedestrian countdown signals, upgrade curb-ramps
I14*	Sunrise Valley & Colts Neck	2,100	2.6	West: Re-align stop bar, upgrade curb ramps; North: Upgrade 1 curb ramp; East: Extend median to include pedestrian refuge; All approaches: pedestrian countdown signals, high visibility crosswalks
I15*	Sunrise Valley & Edmund Halley Dr	2,200	2.9	North: Upgrade curb ramps; East: construct/upgrade curb ramps; West: construct/upgrade curb ramps; All Approaches: High visibility crosswalk, pedestrian countdown signal, pedestrian median refuge

Intersection Improvements – Reston Parkway South (2)

No	Location	Airline Distance to Station Entrance (ft)	Avg. PISI	Recommendations
I16*	Reston Pkwy & South Lakes	3,200	3.8	All Approaches: Upgrade curb-ramps, high visibility crosswalks, pedestrian countdown signals
I17*	Sunrise Valley & Glade Dr	4500	2.7	East: Pedestrian median refuge, upgrade/ construct curb ramps; South: Re-align crosswalk, construct/upgrade curb ramps; West: Re-align crosswalk, pedestrian median refuge, upgrade curb ramps; North: Reduce right turn radius/ remove acceleration lane, upgrade curb ramps; All approaches: High visibility crosswalk, pedestrian countdown signal
I31	Reston Pkwy & Eastbound Dulles Toll Rd ramps	800	--	West: High visibility crosswalk, pedestrian countdown signal, upgrade curb ramps, warning signage at unsignalized crossing, decrease right turn radius; South: Pedestrian median refuges, high visibility crosswalk, pedestrian countdown signal, construct curb ramps, stop bar for eastbound on ramp

Intersection Improvements – Wiehle Avenue North

No	Location	Airline Distance to Station Entrance (ft)	Avg. PISI	Recommendations
I18*	Wiehle Ave & Station Entrance	500	4.2	North: Extend median to include pedestrian refuge; South: Extend median as much as possible, wide curb lanes to accommodate bikes; All approaches: Upgrade curb-ramps, pedestrian countdown signals, high visibility crosswalk;
I19	Wiehle Ave & Isaac Newton Sq N	2,300	4.8	South: Potential infill of striped lane area; East: Upgrade curb ramps, high visibility crosswalk; North: Channelize right turns, median pedestrian refuge, high visibility crosswalk, pedestrian warning signs, pedestrian knockdown signs; West: High visibility crosswalk, upgrade curb ramp
I20*	Wiehle Ave & Isaac Newton Sq S	1,600	3	South: pedestrian median refuge; All approaches: upgrade curb ramps, high visibility crosswalks, pedestrian countdown signals
I21*	Wiehle Ave & Sunset Hills Rd	1,000	3.4	North: Decrease right turn radius; extend median to include pedestrian refuge; East: Raised median; South: Decrease right turn radius; West: Channelize right turns, decrease right turn radius; All Approaches: Upgraded curb ramps, re-align crosswalks, high visibility crosswalks, pedestrian countdown signals

Intersection Improvements – Wiehle Avenue North (2)

No	Location	Airline Distance to Station Entrance (ft)	Avg. PISI	Recommendations
122*	Sunset Hills Rd & Isaac Newton Sq W	1,300	2.6	East: Upgrade curb ramps, decrease right turn radius; North: Decrease right turn radius, upgrade/construct curb ramps; West: Construct curb ramps; South: Construct/upgrade curb ramps; All Approaches: High visibility crosswalks, pedestrian countdown signals
123*	Sunset Hills Rd & Plaza America	3,300	3.6	East: Re-align crosswalk, high visibility crosswalk, pedestrian countdown signal, extend median to include pedestrian refuge; North: High visibility crosswalk, pedestrian countdown signal; All Approaches: upgraded curb ramps;
132	Wiehle Ave & Westbound Dulles Toll Rd ramps	500	--	West: High visibility crosswalk, pedestrian countdown signal, upgrade curb ramps



Trail Crossing Improvements – Wiehle Ave North

No.	Crossing Street	Existing Condition	Recommendations
X1	Wiehle Ave	At-Grade	<p>Phase 1: Yield lines, yield signage, potential user-activated flasher, improved median refuge;</p> <p>Phase 2: Grade-separated crossing with ramp connections</p>
X2	Sunset Hills Rd	At-Grade	Raised 10-foot median refuge, upgraded curb ramps
X3	Michael Faraday Ct	At-Grade	High visibility crosswalk, upgrade curb ramps, warning signage
X4	Isaac Newton Sq W	At-Grade, stop controlled	High visibility crosswalk

Intersection Improvements – Wiehle Ave South

No	Location	Airline Distance to Station Entrance (ft)	Avg. PISI	Recommendations
124	Sunrise Valley Dr & Commerce Park Dr	1,100	4.7	North: upgraded curb ramps, high visibility cross walk; West: upgrade curb ramps, high visibility crosswalk, pedestrian warning and knockdown signs, pedestrian median refuge;
125*	Sunrise Valley Dr & Wiehle Ave	700	3	Re-align intersection to smaller footprint without channelized/free-flow right turns; North & West: upgrade curb ramps, high visibility crosswalks, pedestrian countdown signals
126*	Sunrise Valley Dr & Soapstone Rd	2,200	3.1	East: Extend median to include pedestrian refuge; West: Extend median to include pedestrian refuge; South: Construct curb ramps, decrease right turn radius; North: Median pedestrian refuge; All Approaches: High visibility crosswalk, pedestrian countdown signal, upgrade curb ramps
127	Sunrise Valley Dr & Great Meadow Dr	800	4.7	East: High visibility crosswalk, median pedestrian refuge, pedestrian warning and knockdown signs, flashing beacons; West: High visibility crosswalk, median pedestrian refuge, pedestrian warning and knockdown signs, flashing beacons; South: High visibility crosswalk; All Approaches: update curb ramps
128	Sunrise Valley Dr & Upper Lake Dr	2,400	4.7	North: crosswalk, upgrade curb ramps
129	Wiehle Ave & Eastbound Dulles	600		West: Decrease right turn radius, high visibility crosswalk, pedestrian countdown signal

Sidewalk Improvements

	Side	Street	From	To	Recommendations
S1	N	Sunset Hills	Station Entrance	Target Driveway	Construct Sidewalk and associated curb ramps where needed
S2	E	Reston Pkwy	Sunset Hills Rd	New Dominion Pkwy	Complete Sidewalk
S3	N	Sunset Hills	Reston Pkwy	Business Center Dr	Construct Sidewalk and associated curb ramps
S4	S	Bluemont Way	Reston Pkwy	Discovery St	Construct Sidewalk
S5	Both	Town Center Pkwy	W&OD Trail	Sunset Hills Rd	Complete Sidewalk to intersection of Town Center Pkwy & Sunset Hills Rd
S6	Both	Edmund Halley Dr	Sunrise Valley Dr	Station Entrance	Construct sidewalks
			Phase 1: Edmund Halley Dr	Phase 1: International Center	Phase 1: Construct a shared-use path along the south side of the Dulles Toll Rd (including a crossing of Reston Pkwy) 16-foot wide, marked
S7	S	Dulles Toll Rd	Phase 2: Fairfax County Pkwy	Phase 2: Wiehle Ave	Phase 2: As redevelopment occurs, acquire right-of-way to continue the path to provide access to office buildings
					Phased development of pedestrian and bicycle facilities (see S9 and B5)
S8	N	Sunrise Valley Dr	Fairfax County Pkwy	W&OD Trail	Phase 1: Widen existing sidewalk to and 8-foot wide shared use path to accommodate pedestrians and occasional cyclists

Sidewalk Improvements (2)

	Side	Street	From	To	Recommendations
					Phased development of pedestrian and bicycle facilities (see S8 and B5)
S9	S	Sunrise Valley Dr	Glade Dr	South Lakes Dr	Phase 2: Construct 6-foot wide sidewalk with 5-foot buffer and associated curb ramps (to closely follow implementation of recommendation S8)
S10	E	Reston Pkwy	Dulles Toll Rd access ramps (near new crossing)	South Lakes Dr	Construct sidewalk and associated curb ramps
S11	E	Isaac Newton Sq W	Sunset Hills Rd (or further south if possible)	Isaac Newton Sq S	Construct sidewalk with access to Isaac Newton Sq and W&OD trail
S12	W	Soapstone Rd	Sunrise Valley Dr	Hunter's Green Ct	Construct sidewalk
S13	Both	Isaac Newton Sq S	Wiehle Ave	Isaac Newton Sq W	Construct sidewalk (in conjunction with redevelopment of Isaac Newton Sq if possible)
S14	New	Interparcel Connection	Roger Bacon Dr	Business Center Dr	Construct sidewalks along with new roadway construction
S15	New	Interparcel Connection	Wiehle-S Station Entrance	Sunrise Valley Dr	Construct dedicated path from the station entrance

Bicycle Improvements

	Side	Street	From	To	Recommendations
B1	Both	Town Center Pkwy	Sunset Hills	Baron Cameron Ave (potential extension to Stevenage Rd)	Bike Lanes
B2	Both	Sunset Hills	Town Center Pkwy	Station Entrance	Bike Lanes connecting to bike lanes on Town Center Pkwy, acquire necessary right-of-way
B3	Both	New Dominion Pkwy	Fairfax County Pkwy	North Shore Dr	Bike lanes
B4	Both	Fountain Dr	Freedom Dr	Baron Cameron Ave (potential extension further north)	Bike lanes to be constructed in conjunction with redevelopment: Spectrum development to include maximum 4-lane cross section with 5-foot bike lanes
B5	Both	Sunrise Valley Dr	W&OD Trail	Fairfax County Pkwy	Phased development of pedestrian and bicycle facilities (see S8 and S9) Phase 2: Construct bike lanes (to be complemented in conjunction with recommendation S9)
B6	both	Edmund Halley Dr	Station Entrance	Sunrise Valley	Construct bicycle path as part of the construction of the station

Bicycle Improvements (2)

	Side	Street	From	To	Recommendations
B7	E	Wiehle Ave	Station Entrance	Fairway Dr	Construct 10-foot bike trail with 4-foot buffer
					Phase 1: Construct bike trail with at grade access to W&OD trail
					Phase 2: Construct access ramps to the W&OD trail in conjunction with grade separation of trail crossing (see X1)
B8	W	Wiehle Ave	Station Entrance	W&OD trail	
					East: Pave and formalize existing at grade access ramp
					West: Construct paved access ramp to W&OD trail
B9	Both	NEW Connectors	Town Center Pkwy	W&OD trail	
				Wiehle Ave Station Entrance	
B10		NEW Connector	Sunrise Valley Dr	Entrance	Construct bike path
		Private Rd opposite Isaac Newton Sq W		Station entrance	
B11	Both	Newton Sq W	Sunset Hills Rd		Wide curb lanes
					Construct shared bus/bike lanes on the proposed roadway extension
B12	Both	Soapstone Connector	Sunrise Valley Dr	Sunset Hills Rd	